UNIVERSAL REGISTRATION DOCUMENT

Including the annual financial report

2022

SAINT-GOBAIN

UNIVERSAL REGISTRATION DOCUMENT

INCLUDING THE ANNUAL FINANCIAL REPORT

2022

On March 22, 2023, the French version of this Universal Registration Document was filed with the French Financial Markets Authority (Autorité des marchés financiers, AMF), the competent authority pursuant to (EU) Regulation No. 2017/1129, without prior approval, in accordance with Article 9 of said regulation.
The French version of this Universal Registration Document may be used for the purposes of a public offer of securities or the admission of securities to trading on a regulated market if it is supplemented with a securities note and, if required, a summary note, as well as all updates made to the Universal Registration Document. The whole is then approved by the AMF in accordance with (EU) Regulation No. 2017/1129.

This English version of the Universal Registration Document cancels and replaces the previous English version posted on the Saint-Gobain website on March 28, 2023. The only changes made in this version are to reflect paragraphs of the French version (which as stated below is the authentic text) that need to be adjusted in the English translations: (i) the text below "Environment'" (excluding the table) on page 137, (ii) the text below "Social" (excluding the table) on page 141, and (iii) the text below "Ethics and communities" (excluding the table) on page 147.

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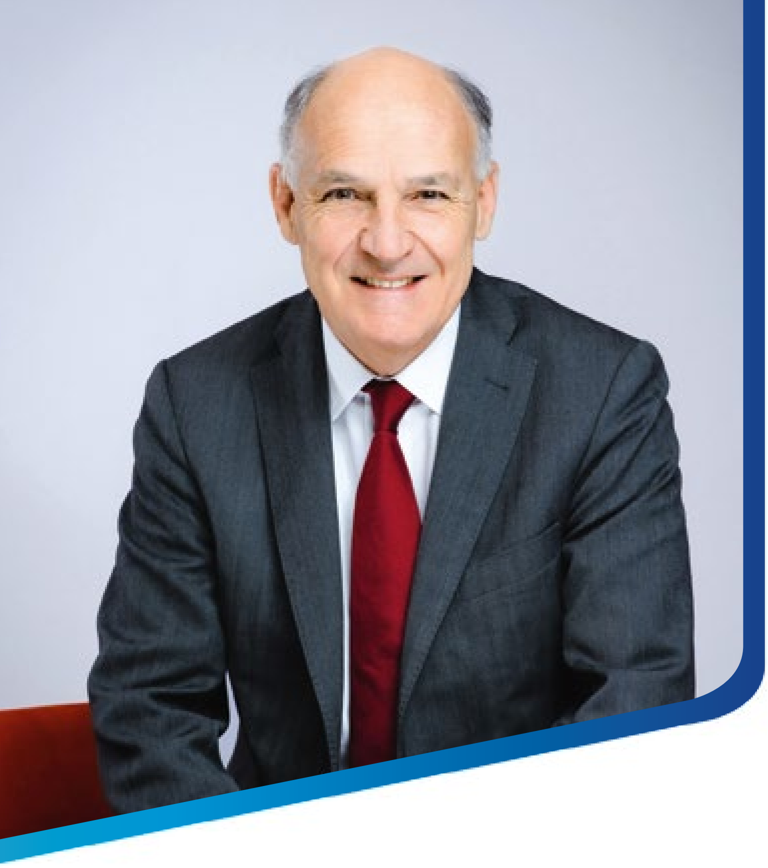
AFR The elements of the annual financial report are identified in the table of contents by the AFR icon

EFDP The Non-Financial Performance Declaration is identified by the EFPD icon



MESSAGE FROM

PIERRE-ANDRÉ DE CHALENDAR

Chairman of the Board of Directors of Saint-Gobain

“THE GROUP HAS CLEARLY SHOWN THAT IT CAN DELIVER PROFITABLE AND SUSTAINABLE GROWTH.”

Saint-Gobain’s record performance in all areas in 2022 – after its unprecedented achievements in 2021 – clearly validates the choices we have made in recent years with our strategic plan and the changes to our Group’s governance. It is a source of great satisfaction for me and all the members of our Board of Directors, and will reflect on all our stakeholders.

Our performance in 2022 was all the more remarkable that it was achieved in an unsettled **market environment**, with rising geopolitical risks, inflation – which led to a very sharp rise in energy prices – and disorganized logistics chains. Many congratulations to Benoit Bazin and all teams who have successfully adapted to this new situation! Saint-Gobain’s performance was faultless.

All our financial indicators hit record levels. The Group has clearly shown that it can deliver profitable and sustainable growth. I am delighted that the sharp increase in the dividend will allow our shareholders to share in this success.

In terms of sustainability, Saint-Gobain is present in ESG (environmental, social, and governance) stock market indices and has obtained certification for its achievements in gender equality, climate change, and HR performance, reflecting its progress in these areas. Over the long term, **the Group’s integrated approach, which incorporates ESG criteria in its analysis of risks and opportunities, is a key part of its business model**. Our response to social, societal, and environmental challenges and the recognition of the interests of all our internal and external stakeholders are essential to enable Saint-Gobain to contribute to a low carbon economy, generate performance while using fewer resources, and foster a fairer world. Our directors pay constant attention to this topic in particular. **I am proud of the quality, depth, and density of the interaction between the Executive Committee and the Board of Directors**, which is the embodiment of effective governance.

On behalf of the Board, **I would like to thank all our teams around the world**. The 168,000 men and women who bring our ambition to life every day are ambassadors of our values. Their unfailing commitment will secure Saint-Gobain’s future.

The Board of Directors is very confident that our Group will achieve its goals and create sustainable value for all its stakeholders.

MESSAGE FROM

BENOIT BAZIN

Chief Executive Officer
of Saint-Gobain

"SAINT-GOBAIN IS NOW A PROFOUNDLY TRANSFORMED GROUP."

Saint-Gobain achieved a remarkable financial and non-financial performance in 2022. This performance was driven by the strength of our position as a leader in sustainable construction, the flawless execution and success of our "Grow & Impact" strategic plan, our innovation capabilities, our robust country-based operating model and, of course, the talent and commitment of our teams. I would like to take this opportunity to thank them all.

The figures speak for themselves: sales up 16% from 2021 to €51.2 billion, a sharp increase in operating income to €5.3 billion, and a record margin of 10.4%. In four years, our sales have increased by 23%, our operating income by 66% and our operating margin has shown a structural increase, reaching double-digit levels for the second year in a row. Net earnings per share have doubled, and our cash flow generation has tripled. These are all big steps forward, reflecting the company's **constant value creation**, with a return on capital employed (ROCE) of over 15% in both of the past two years.

This ability to create value is the result of the Group's profound transformation. We now have an **agile, responsive organizational structure**, led by local managers in their own countries. **We have made far-reaching changes to our scope of activity** to strengthen our growth and profitability. Nearly one third of the Group's scope has changed since 2018 with divestments and acquisitions totaling nearly €13 billion in sales – including €1.9 billion purchased and €3.8 billion sold in 2022 alone. The creation of a global platform with **more than €5 billion in sales in construction chemicals** – a key segment for the decarbonization of the sector – is an integral part of this move. While it was historically focused on Europe, Saint-Gobain continued to **rebalance its geographic footprint** and now generates more than 62% of operating income (2022 *pro forma*) in **North America** (30%) and **emerging countries** (32%).

Saint-Gobain demonstrates its commitment to sustainability by **maximizing the positive impact** of its offering – with nearly 75% of sales addressing sustainable development issues – and **minimizing its environmental footprint**, in particular with several pioneering technologies developed in 2022, such as the zero-carbon production of glazing and plasterboard. Saint-Gobain has cut its CO_2 emissions by 27% in relation to 2017 levels. Given the strong growth in its business over the same period, this represents a 42% reduction in emissions per euro of sales.

In 2023, Saint-Gobain is structured to face a volatile business environment where uncertainty has virtually become the norm. Our Group will resolutely continue to implement the strategic priorities of the "Grow & Impact" plan by developing its **offering to respond to the major challenges facing our planet and humanity**, including the climate emergency, the energy crisis, the increasing scarcity of natural resources, and growing urbanization. I am confident that **2023 will be another good year for Saint-Gobain**, and that we will create value for all our stakeholders.

1

SAINT-GOBAIN TODAY

1.1 SAINT-GOBAIN IN FIGURES

1.1.1 KEY FIGURES

€51,197M
Sales

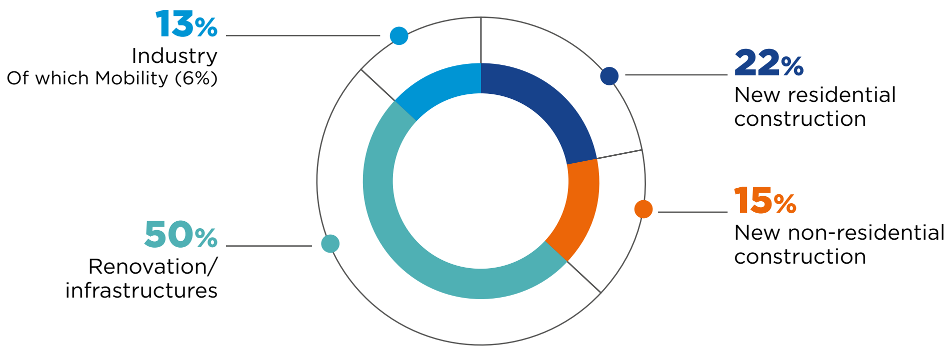
€5,337M
Operating income

€3,335M
Recurring net income

€3,791M
Free cash-flow

1.1.2 MARKETS

BREAKDOWN OF REVENUE BY MARKET



1.1.3 GLOBAL PRESENCE

A global footprint

Industrial presence in 75 countries

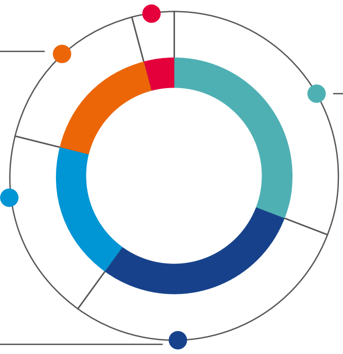
Albania	Czechia	Ivory Coast	New Zealand	South Africa
Algeria	Denmark	Japan	Norway	South Korea
Angola	Egypt	Jordan	Oman	Spain
Argentina	Estonia	Kazakhstan	Peru	Sri Lanka
Australia	Ethiopia	Kenya	Philippines	Sweden
Austria	Finland	Kuwait	Poland	Switzerland
Belgium	France	Latvia	Portugal	Tanzania
Bhutan	Germany	Lebanon	Qatar	Thailand
Botswana	Ghana	Lithuania	Romania	Turkey
Brazil	Greece	Luxembourg	Russia	United Arab Emirates
Bulgaria	Hungary	Malaysia	Saudi Arabia	United Kingdom
Canada	India	Mauritius	Serbia	United States
Chili	Indonesia	Mexico	Singapore	Uruguay
China	Ireland	Morocco	Slovakia	Vietnam
Colombia	Italy	Netherlands	Slovenia	Zimbabwe

A multinational Group

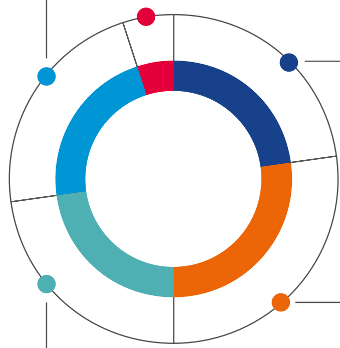
167,665
employees

122
nationalities represented

Breakdown of revenue



Breakdown of operating income



* *High Performance Solutions.*
** *Like-for-like.*

1.1.4 FINANCIAL AND NON-FINANCIAL PERFORMANCE

A - Financial results

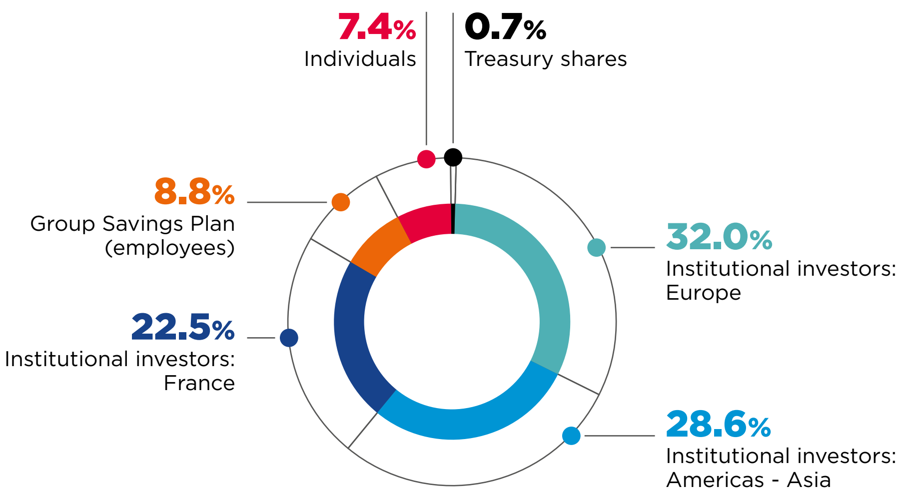
€6.48
Recurring earnings per share

€8,232M
Net debt

€22,711M
Shareholders' equity Group share

€1,940M
Capital expenditure

B - Shareholding



C - Non-financial performance

Thanks to its commitment and determination to put social responsibility at the very heart of its strategy, striving for continuous improvement (see section 1.2.2.C.a, page 17), the Group is a leading player in terms of non-financial performance, as evidenced by its presence in various stock market indices, but also the recognition achieved through other rankings and certifications.

a. Stock market indices

An essential tool of "sustainable finance", ESG stock market indices are intended to help build a financial ecosystem capable of accelerating the transition to a sustainable economy, by directing financial flows towards the most virtuous organizations in terms of environmental, social and societal responsibility. Saint-Gobain is included in the following indices:

Organization	Index	Description
EURONEXT	**CAC40 ESG**	Launched in March 2021, this first ESG index created by EuroNext at the national level in France brings together 40 companies listed in Paris (selected from the CAC Large 60 companies) which have demonstrated best practices, based on the assessment carried out by the VigeoEiris agency [1].
	CAC SBT 1.5	This index reflects the performance of a series of companies selected from the 120 largest companies listed in Paris and whose CO_2 emission reduction targets have been approved by the Science Based Targets initiative (SBTi).
SOLACTIVE German Index Engineering	Saint-Gobain is listed in several **Solactive** ESG indices such as:	
	Solactive Euro 50 ESG	This index tracks the price movement of the 50 largest companies within the Eurozone that are also members of the Ethibel Sustainability Index Excellence Europe.
	Solactive ISS ESG Developed Markets Paris-Aligned Benchmark	The underlying assets are selected to ensure that the portfolio's GHG emissions are aligned with the long-term objectives of the Paris Agreement on global warming and by including only companies that operate in accordance with market standards in terms of responsible business conduct and trade in controversial weapons.
FTSE Russell	**FTSE4Good**	The FTSE4Good index series, launched in 2001, uses transparent metrics of ESG performance to select the list of companies they contain, incentivizing companies to improve their sustainability practices.
MSCI	Saint-Gobain is listed in several **MSCI** ESG indices such as:	
	MSCI World Climate Change Index	This index, based on the MSCI World Index, aims to represent the performance of an investment strategy and re-weights securities based on the opportunities and risks associated with the transition to a low-carbon economy.
	MSCI Europe Climate Change Index	With the same goal as the World Climate Change Index described above, this index is based on the MSCI Europe Index.
	MSCI Europe Select Green 50	This index represents the performance of the 50 largest stocks by free-float market capitalization from the MSCI Europe Index, that offer products and services that contribute to an environmentally sustainable economy through efficient use of limited global natural resources.
STOXX	**STOXX Europe 600 ESG**	Index based on the STOXX Europe 600 index, one of the key benchmarks in Europe, and using standardized ESG exclusion criteria.

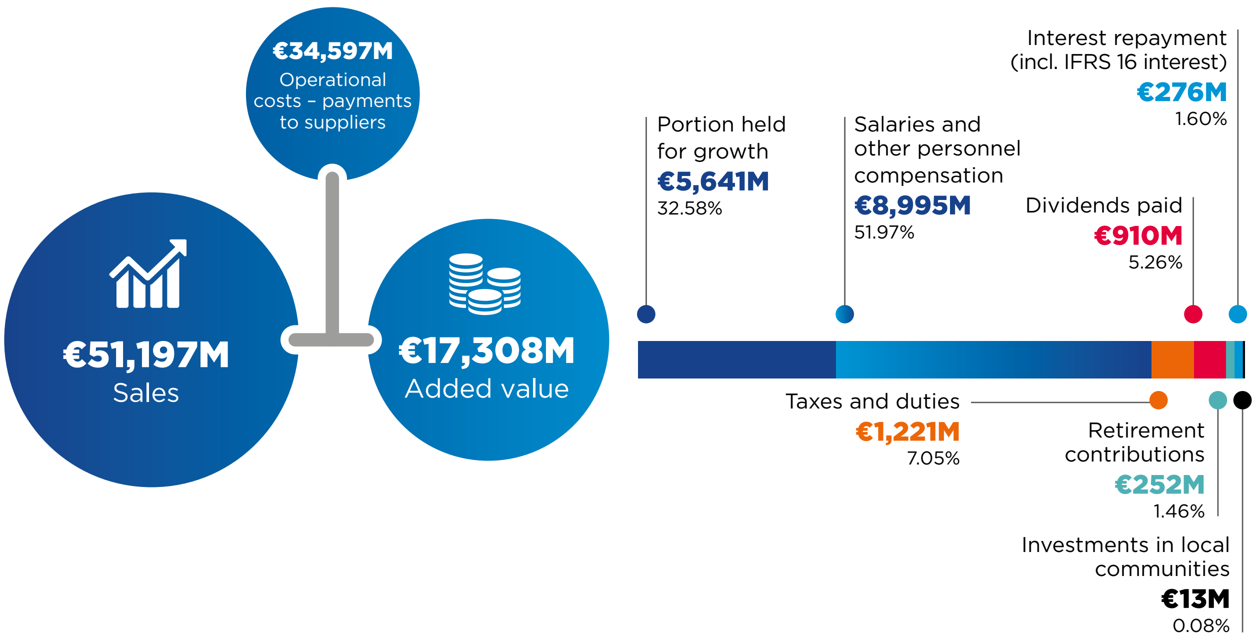
(1) *Presentation brochure: https://www.euronext.com/sites/default/files/2021-08/52118_CAC40-ESG-Index_brochure_v08_1.pdf.*

b. Other rankings and certifications

Organization	Ranking	Description
	Bloomberg Gender Equality Index	In 2022, for the fifth consecutive time, Saint-Gobain was included in the Bloomberg Gender Equality Index, a recognized index in the area of diversity and inclusion. The Group is thus one of the 484 companies from 45 countries and territories included [(1)].
	Climate Change A List	CDP (Carbon Disclosure Project) is an international non-profit organization created in 2000, which publishes data on the environmental impact of major companies. It is based in the United Kingdom. In 2022, for the second consecutive time, the Group was included in the Climate Change A List, which brings together 283 companies out of more than 15,000 that responded to the climate change questionnaire. In addition to the CDP Climate, Saint-Gobain also received an "A-" for its commitments in terms of water security, confirming its commitment to reduce water withdrawals by 50% in 2030 compared to 2017 and to achieve zero discharge of water in areas suffering from extremely high water stress.
	Top Employer Global	Each year, the Group submits its human resources practices to the Top Employers Institute, an independent organization that evaluates HR and ethical performance on the basis of a questionnaire followed by audits of practices. In 2022, Saint-Gobain is among the 16 certified companies worldwide. The Group is also recognized as a Top Employer in 40 countries.

(1) *https://www.saint-gobain.com/sites/saint-gobain.com/files/media/document/CP_23-01-31_Saint-Gobain_Bloomberg_GEI_VFR.pdf*

c. Breakdown of revenue and value added by stakeholder



d. CSR indicators and significant events

Saint-Gobain has taken the commitment **to contribute to carbon neutrality** by 2050: its Scope 1 and 2 emissions have already (in 2022) decreased by 27% compared to 2017 (2030 intermediate objective: 33%). This commitment was validated by SBTi*.

Saint-Gobain's actions in favor of the **circular economy** have helped avoid the extraction of **9.4 million tonnes of virgin raw materials**.

For the fifth consecutive year, Saint-Gobain features in the **Bloomberg Gender Equality Index**.

Saint-Gobain's **sustainable solutions make up around** 75% of its sales. The solutions sold by the Group in 2020 **enable the avoidance of 1,300 million tonnes of CO_2** over their lifetime.

Saint-Gobain has once again been **recognized this year for leadership in the fight against climate change by the CDP**. For the second year in a row, Saint-Gobain makes the "Climate Change A List".

"CARE by Saint-Gobain" **social protection** program: 100% of employees covered in 2022.

** Science Based Targets initiative (cf. glossary at the end of the document).*

Saint-Gobain's CSR approach is presented in chapter 3, page 70.

e. Digital and innovation

810,892
followers on the Group's central social media accounts and profiles
+22%
(2021 to 2022)

832,470
interactions and initiated **conversations**
+106%

40,431,700
video views
+325%

+ than 450
patents filed in 2022

3,500
researchers

3,600
marketing experts*

** All seniority levels*

f. Governance [(1)]

14 directors of which:

73%
independent directors

99%
attendance rate

1
lead independent director

45%
women

2
employee directors

1
director representing employee shareholders

(1) *The figures are calculated taking into account the provisions of the Afep/Medef Code and the French Commercial Code, which exclude Employee Directors from the calculation.*

1.2 SAINT-GOBAIN'S DNA

1.2.1 MAJOR MILESTONES IN THE CONSTRUCTION OF THE GROUP

- Saint-Gobain was founded in 1665 by Louis XIV, under the name of the "Royal Manufacture of Mirrors", in order to put an end to the technological and commercial supremacy of the Republic of Venice in the manufacturing of mirrors [(2)].
- Throughout the 19th century, Compagnie de Saint-Gobain, which became a limited company in 1830, diversified its activities into sectors such as chemicals, glass products and the automotive industry. It quickly expanded into international markets, establishing itself in the United States in 1829, Germany in 1858 [(3)], Italy in 1888 and Spain in 1905.
- In 1970, the Group, which successfully overcame the major crises of the century and invested heavily in research and development, withdrew from its chemical activities and merged with Pont-à-Mousson, created in 1856 and specializing in cast iron pipes.
- In 1986, the privatization of Saint-Gobain – which had been nationalized in 1982 – was a huge popular success: 1,500,000 shareholders subscribed to the operation [(4)].
- In 1990, through the acquisition of Norton, the Group doubled its presence in the United States, which opened up new markets and enabled it to develop its know-how in the areas of abrasives, plastics and ceramics.
- The acquisition of Poliet in 1996 provided the basis for developing the distribution businesses. Saint-Gobain then continued its acquisitions in the world of construction material trading.
- The acquisition in 2005 of British Plaster Board, the world leader in plasterboard, was Saint-Gobain's largest ever. Combined with Isover glass wool and its range of insulation solutions, it made Saint-Gobain the world leader in interior solutions.
- In 2007, Saint-Gobain focused its strategy on sustainable housing, while continuing to serve many industrial markets and, thanks to its numerous locations, continued to expand in emerging countries.
- In 2019 and 2020, the Group implemented its "Transform & Grow" plan, which aimed at establishing a new organization – by country and by market – and to ensure agile and value-creating portfolio management.
- In 2020, Saint-Gobain formulated its corporate purpose, "Making the world a better home" (see below, p. 15).
- In 2021, the acquisition of Chryso turned Saint-Gobain into a major player in construction chemicals.
- In July 2021, the Group changed its governance, with Benoit Bazin succeeding Pierre-André de Chalendar as Chief Executive Officer, the latter remaining Chairman of the Board of Directors.
- In October 2021, Saint-Gobain launched its "Grow & Impact" strategic plan (see section 2.3.1, p. 57).
- In September 2022, the Group finalized its acquisition of GCP Applied Technologies, a key step in establishing itself as a leader in construction chemicals.
- At the end of 2022, Saint-Gobain is present in 75 countries (see section 1.1.3, p. 7).

(2) *Saint-Gobain archives: https://archives.Saint-Gobain.com/ressource/xviie/1665/1665-louis-xiv-fonde-la-manufacture-royale-des-glaces-miroirs-linstigation-de.*
(3) *Saint-Gobain archives: https://archives.Saint-Gobain.com/ressource/xixe/1858/1858-Saint-Gobain-affirme-sa-vocation-internationale.*
(4) *Saint-Gobain archives: https://archives.Saint-Gobain.com/ressource/xxe/1986/1986-le-pari-reussi-de-la-privatisation.*

1.2.2 THE FUNDAMENTALS OF SAINT-GOBAIN'S IDENTITY

A – A corporate purpose, the cornerstone of the Group's identity

In 2020, Saint-Gobain established its corporate purpose, "Making the world a better home". With this corporate purpose, Saint-Gobain took on its ambition to improve everyone's lives by making the planet a fairer, more harmonious and sustainable living space. Through its business model, generally, and with its solutions, specifically, Saint-Gobain has a tangible impact on the life of each individual, their environment, and their way of working, caring for themselves and getting around. The Group's corporate purpose is the link between the infinitely small unit of each person's living space and the infinitely large one of our shared home: the planet.

MAKING THE WORLD A BETTER HOME : THE MANIFESTO

Our corporate purpose sets the course for our common future. Together with and for our customers, we design, manufacture and distribute materials and solutions that have a positive impact on everyone's life and provide well-being, quality of life and performance, while caring for the planet.

Our corporate purpose reflects who we are. Our 350 years of history, our collective strength and our leadership empower us to pursue our development, by addressing the major challenges facing humanity, namely, climate change, resource protection and the fight against inequality.

We are both an international and multi-local company, fully integrated into the territories where we operate to support their vitality and help build a fairer and more sustainable, open and engaging world.

Our corporate purpose is a call to action. Our approach is clearly focused on the future. Together with our customers, partners and all our stakeholders, it guides our action to unleash individual and collective aspirations, and enable everyone to live better in the world. It calls on us to innovate openly, with the ever-renewed ambition of better uniting humanity and nature for the common good.

Our corporate purpose is based on values that guide us. We carry out our business in compliance with the Principles of Conduct and Action and the humanist values that permeate our corporate culture. Listening, dialog, care, solidarity, trust and respect for difference are central to our commitment.

This is the profound ambition of our corporate purpose: to act every day to make the world a more beautiful and sustainable place to live.

B – Values: the Saint-Gobain Principles of Conduct and Action

The Group bases its development on its corporate purpose and on strong values embodied in nine Principles of Conduct and Action, which constitute a true code of ethics. Formalized in 2003, translated into 31 languages, and distributed to all employees, these principles constitute an ethical reference applicable in action. They are a condition of belonging to Saint-Gobain.

5 PRINCIPLES OF CONDUCT

Professional commitment
•
Respect for others
•
Integrity
•
Loyalty
•
Solidarity

These principles of conduct are the fundamental values that unite managers and employees.

4 PRINCIPLES OF ACTION

Respect for the law
•
Caring for the environment
•
Respect for health and safety at work
•
Respect for employee rights

These principles guide the actions of all management and employees in the performance of their duties.

The Principles of Conduct and Action refer explicitly to the applicable conventions of the International Labor Organization (ILO), the International Charter on Human Rights, the guidelines for multinational enterprises of the Organization for Economic Co-operation and Development (OECD), and the OECD's convention on the fight against corruption. Saint-Gobain has been signed up to the United Nations Global Compact since 2003. This demonstrates the Group's drive for Corporate Social Responsibility (CSR), which includes regular communication of its progress in areas covered by the Global Compact.

The implementation of the Principles of Conduct and Action is reflected in policies and commitments applied by all of its entities in all countries in which they operate. Foremost among these commitments are the "reference policies". These define the management principles applicable to all Saint-Gobain entities and employees, as well as to subcontractors in their work for the Group, and suppliers under the Responsible Purchasing policy (see section 3.1.2.B, p. 73).

This desire to establish the Principles of Conduct and Action as a sign of belonging is illustrated by the objective set by the Group's Board of Directors to train all managers on the Principles in their first year with the Group. In addition, the Principles of Conduct and Action are included in the welcome booklets for all Saint-Gobain employees and in most employment contracts (see section 3.1.5.A p. 86).

C – An approach aimed at creating shared value with all of the Group's stakeholders

For Saint-Gobain, sustainable growth is conceived within its ecosystem, in other words, taking into account the interests of all its stakeholders. It is therefore a question of pursuing a development trajectory that integrates both the financial performance and shareholder value objective (see p. 19 below) as well as the Group's Corporate Social Responsibility.

a. Embedding CSR at the heart of the business model

A cross-functional priority

For Saint-Gobain, CSR is a long-term commitment, necessarily an integral part of its business model (see section 1.2.3, p. 20) and permeating all of its activities. It involves a twofold commitment: maximizing the positive contribution to climate, social and societal issues, and minimizing the impact on human beings and the environment. For the Group, this is a process of continuous development that has been one of its priorities for many years:

- 2003: Saint-Gobain signs the United Nations Global Compact and adopts the Principles of Conduct and Action (see above, p. 16);
- 2009: formalization of the compliance program;
- 2015: setting of ambitious environmental targets for 2025 (reduction of CO_2 emissions by 20%, reduction of water discharges by 80%, reduction of non-recovered waste by 50% compared to 2010 at equal levels of production);
- 2020: development of the roadmap to carbon neutrality by 2050 and formalization of new environmental objectives for 2030.

A global and local priority

The cross-functional nature of CSR calls for **the systematic integration of ESG (environment, social and governance) criteria into the analyses carried out, the decisions made and the actions taken** throughout the organization. At the central level, this is reflected in the creation of a CSR Committee within the Board of Directors. It then **orchestrates, at the global level, faster implementation of the CSR roadmaps adopted by the entities at the local level**. To achieve this, no fewer than 22,000 employees belong to more than 40 internal CSR communities. An internal CO_2 price was set in 2016 and revised upwards in October 2021 to €75 per metric ton for investment expenditure, and to €150 per metric ton for research and development decisions. And lastly, a capital investment budget of €100 million per year has been allocated to initiatives (including R&D) to reduce the Group's CO_2 footprint.

Saint-Gobain's CSR approach must therefore be embodied within all the Group's constituent parts and teams. This is reflected in a wide variety of programs and actions worldwide. The "Climate Academy" at Saint-Gobain University, launched in November 2021, added new training throughout 2022 to take action on the environmental footprint at all levels of the organization. These include: "Improving our individual footprint", "Building your roadmap to take action", or "Bringing your supply chain into your climate journey". It also includes new modules on human resources and information systems.

A Group-wide approach at ecosystem level

Finally, it contributes to shaping the CSR outlook for all business sectors in which Saint-Gobain operates. The Group collaborates with NGOs and semi-public bodies such as EFRAG [(5)]; it is also developing partnerships with other members of its ecosystem, such as the WBCSD [(6)]; it increasingly nurtures close relationships with start-ups to leverage open innovation (see section 2.3.4.D, p. 62).

A differentiating factor

In terms of CSR, the Group sees this commitment as **a real differentiating factor compared to its competitors**. The strategic nature of its approach means that Saint-Gobain enjoys great legitimacy in the fight against climate change, through the impact of its solutions on reducing GHG (greenhouse gas) emissions in the construction and mobility sectors and through its action to reduce emissions from its industrial processes and those of its customers. In an environment where awareness of environmental and social issues has increased significantly, the authentic nature of its CSR approach is also a source of appeal in recruitment, a lever for employee commitment, and notable support for the perception of all of its brands. This commitment also counts on the commercial side. According to a study conducted in 2022 by Danish retailer Brødrene Dahl, a Group brand, it appears that a significant portion of the brand's customers consider the following criteria to be "important" or "very important": the possibility of finding eco-labels and certifications on products (38%), eco-responsible delivery options (43%), focus on social responsibility (45%), sustainable development (45%) and climate (51%).

Making progress on all six pillars of the Saint-Gobain roadmap

The CSR roadmap guides the Group's actions to reduce the environmental, social and societal impact of its operations and solutions (see section 3.1, p. 72). It takes into account both Saint-Gobain's strategic commitment and the specific expectations of stakeholders. It performs an educational role, with a view to fostering synergies with its stakeholders. It is based on six pillars and measures the progress made through the double prism of maximizing the Group's contribution and minimizing its footprint.

(5) *See glossary at the end of the document.*
(6) *Idem.*

	Maximize the Group's contribution through its operations and relationships with all its stakeholders	Minimize Saint-Gobain's footprint throughout its value chain
Climate change/Building a low-carbon world To contribute to a fair and sustainable transition, aligned with the Paris Agreement	… by providing its customers with solutions to generate carbon benefits. It is estimated that the solutions sold each year by Saint-Gobain enable the avoidance of 1,300 million tonnes of CO_2 over their lifetime (data as of 2020), i.e., exceeding by far the Group's total carbon footprint.	… through multiple approaches such as improving the energy efficiency of the Group's industrial processes, renewable energy supply agreements to power its industrial sites, the development of eco-compatible logistics, and investments to offer low-carbon solutions to Saint-Gobain's customers and to innovate in industrial processes.
The circular economy/ Introduce circularity in our markets Creating value through a circular business model that conserves resources	… by reaching a percentage of sales through sustainable solutions of around 75%; by contributing to recycling initiatives common to the business sectors in which the Group operates; by developing the recycling of gypsum; or by decreasing the extraction of raw materials in the construction of façades thanks to the use of light techniques.	… by replacing all plastic packaging with paper for mortars in Brazil; by publishing nearly 1,850 EPDs (environmental product declarations), representing 47.9% of its revenue, making the Group the world's largest issuer of these in the construction sector; or by targeting a 80% reduction in non-recovered waste by 2030 compared to the figures for 2017.
Health and safety throughout the value chain/Being at the forefront of the most demanding standards Our first responsibility is to guarantee the health and safety of our employees and our stakeholders	… by innovating with sustainable solutions; by halving noise pollution thanks to Ecophon ceiling solutions; by improving the air quality of interior spaces via Activ'Air plasterboard solutions; by providing access to controlled hydrothermal comfort via the Vario membrane; or by providing materials designed for the ergonomics of installers during installation.	… with a worldwide and gradual roll-out of the "Care by Saint-Gobain" program between 2021 and 2023; by developing the "Mental WellBeing" program; by aiming to eliminate handling risks through attention to ergonomics; by rolling out the noise exposure indicator.
Inclusive growth/ Strengthen our local ecosystems Creating shared economic growth with stakeholders in a spirit of mutual trust and transparency	… by investing €13.4 million in philanthropic projects and sponsorship and, thanks to the Foundation, bringing projects relating to social housing and professional integration to life.	… by establishing itself locally, the Group thereby energizes and enriches the regions through the creation of direct and indirect jobs.
Employee commitment and diversity/Foster an open and engaging work environment Creating a work environment conducive to professional and personal growth and promoting the inclusion of all diversity and equity	… by having women account for 27.4% of managers worldwide in 2022 (the 2020 objective of 25% having been achieved, a new objective of 30% is set for 2025); by having women make up 37.5% of the Group's Executive Committee in 2022.	… by ensuring engaging working conditions wherever the Group operates. In 2022, 84% of employees responded to the satisfaction survey, with an engagement index of 84% and a recommendation rate of 86%.
Business ethics/Act without compromise Sharing our values with our stakeholders to build together over the long term	… with initiatives such as the deployment of anti-corruption programs; or through the organization of the Principles of Conduct and Action Day.	… by reducing risks throughout the supply chain and in operations. This is reflected in a strong Responsible Purchasing policy, with 100% of trade purchases in Europe covered by a Suppliers Charter, as well as 92.7% of non-trade purchases.

Measuring and communicating on progress made

Saint-Gobain communicates transparently on its objectives, its roadmap – seen as a path for progress – and the results obtained each year, through a whole series of key performance indicators (see section 1.1.4.C, p. 10 and section 4.2.2, p. 137).

b. Pursuing the objective of financial performance and shareholder value

True to its approach to sustainable and profitable development, Saint-Gobain has set itself, as part of its "Grow & Impact" strategic plan, the goal of accelerating its growth, financial performance and value creation for its shareholders. In particular, the Group has set **new financial targets** in the form of annual averages for the period 2021-2025 [7]. Firstly, **accelerating income and cash generation**, with organic sales growth of between 3% and 5%, an operating margin of between 9% and 11%, and a free cash flow conversion rate of over 50%. Then, **a sustained discipline in capital allocation**, with a return on invested capital (ROCE) of between 12% and 15%, and a "net debt to EBITDA" ratio of between 1.5 and 2. Finally, an **attractive shareholder return policy**, with an annual dividend payout rate of between 30% and 50% of recurring net income, paid in cash, and a share buyback program worth up to €2 billion for the period 2021-2025 equivalent to more than 30 million net shares bought back based on the recent Saint-Gobain share price.

Concerning the **business portfolio**, the Group's scope continues to be regularly reviewed: performance and strategic alignment for disposals, and capital allocation according to specific criteria for value-creating acquisitions. This involves allocating the necessary resources for development in markets with growth potential (see section 2.3.7.A, p. 68) and taking the necessary measures, on an ongoing basis, to restructure, optimize or dispose of activities that are underperforming (see section 2.3.7.B, p. 68).

[7] *Press release, October 6, 2021.*

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SAINT-GOBAIN TODAY 1
Saint-Gobain's DNA

1.2.3 THE VALUE CREATION MODEL

CONTEXT, RISKS AND OPPORTUNITIES: MEGATRENDS
CLIMATE CHANGE • DEMOGRAPHICS AND URBANIZATION • DEPLETION OF NATURAL RESOURCES • DIGITALIZATION • CHANGING LIFESTYLES

What relations and resources does Saint-Gobain use? How does the Group's... organization generate value? How is the growth created shared, sustainable and profitable?

RESOURCES

HUMAN
- 167,665 employees (around 120 nationalities) in 75 countries
- 27.4% of women managers
- Engagement rate of 84%
- Saint-Gobain has once again been awarded the Top Employer Global certification for the 8th year in a row at the beginning of 2023
- 97% of employees have access to the Group Savings Plan (PEG) in 53 countries

INTELLECTUAL
- A strong brand: Saint-Gobain
- Recognized professional brands in construction and industry
- 3,500 researchers
- More than 450 patents filed every year

FINANCIAL
- Sales: €51,197M
- Operating income: €5,337M
- Recurring net income: €3,335M
- €100 million budget per year allocated to CAPEX and research and development investments between 2020 and 2030 to achieve carbon neutrality

MANUFACTURED
- Around 2,700 sales outlets
- Around 800 industrial sites
- Around 50 projects involving collaboration with start-ups approved in 2022
- Manufacturing processes aiming at operational excellence and a reduced environmental footprint

NATURAL
- Continuous reduction of carbon intensity since 2017, with 1.38 kCO_2/€ Ebitda in 2022
- 9.4 million tonnes of virgin raw materials avoided in 2022
- Industrial specialties (glass, gypsum) indefinitely recycled in a closed loop
- Increased use of renewable energies

SOCIAL AND COMMUNITY
- Precise mapping of the Group ecosystem, and of the designated contacts for each stakeholder
- Analysis and prioritization of key issues and incorporating them into strategic decisions

From the resources in its ecosystem...

BUSINESS MODEL

FUNDAMENTALS

Relying on a corporate purpose: MAKING THE WORLD A BETTER HOME
•
Taking into account THE INTERESTS OF SAINT-GOBAIN'S STAKEHOLDERS

Reaching our objectives in terms of HEALTH, SAFETY, OPERATIONAL PERFORMANCE
•
Applying our PRINCIPLES OF CONDUCT AND ACTION

VISION

BE THE WORLDWIDE LEADER IN LIGHT AND SUSTAINABLE CONSTRUCTION... ...WHICH IMPROVES EVERYONE'S DAILY LIFE WITH ITS HIGH PERFORMANCE SOLUTIONS

GROWTH AMBITION

EXPANDING ON GROWING MARKETS ON ALL CONTINENTS →
RENOVATION
•
NEW CONSTRUCTION
•
DECARBONATION OF INDUSTRY

STRATEGIC AXES

A SOLUTIONS-BASED APPROACH
•
A CLIENT-CENTRIC KIND OF INNOVATION PROCESS
•
A PERFORMANCE-ORIENTED ORGANIZATION

LEVERAGING DATA AND DIGITAL TECHNOLOGIES
•
LEADING TRANSFORMATION IN THE CONSTRUCTION INDUSTRY
•
ALLOCATING THE GROUP'S RESOURCES EFFICIENTLY

Saint-Gobain creates value...

VALUE CREATED

CREATING SUSTAINABLE AND PROFITABLE GROWTH

Around 75% of sales through sustainable solutions

For the period 2021-2025, Saint-Gobain is aiming for an organic growth of +3% to +5%, an operating margin of 9% to 11%, and a return on invested capital of 12% to 15%

CREATING SHARED VALUE

ECONOMIC
- €51,197M Sales
- €17,308M Added value
- €5,641M Portion held for growth
- €276M Interest repayment
- €910M Dividends paid

EMPLOYMENT AND SOCIAL
- €8,995M Salaries and other personnel compensation
- €1,221M Taxes and duties
- €252M Retirement contributions
- €34,597M Operational costs – payments to suppliers
- €13M Investments in local communities

CONTRIBUTING TO...

... A DECARBONATED HOME
- -27% of CO_2 emissions (scopes 1 and 2) between 2017 and 2022 (in absolute terms)
- 47.9% of revenue generated with products covered by verified LCA or EPD, excluding distribution activities

... MORE PERFORMANCE WITH LESS
- -19.9% of water withdrawals between 2017 and 2022
- 9.4 million tonnes of virgin raw materials avoided

... A BETTER LIVING FOR ALL
- 100% of the Group employees have access to a social protection program: "Care by Saint-Gobain"
- 34.9% of managers hired are women

... for a shared, sustainable and profitable growth.

1.3 HIGHLIGHTS OF 2022

1.3.1 TIMELINE OF SIGNIFICANT EVENTS

- **January 2022**
  - For the seventh year in a row, Saint-Gobain has been awarded the **"Top Employer Global"** certification by the Top Employers Institute, based on an audit covering more than 400 working condition practices, in particular, the HR and career development processes. The Group is one of the **11 companies worldwide** to have received this label.
- **February 2022**
  - Saint-Gobain enters into an agreement for the sale of its regional glass processing business **Baltiklaas OÜ** in **Estonia** to Polar Glass OÜ.
  - The Group enters into binding agreements for the sale of its specialist tile distributor in the **UK**, **CTD Tile Group**, to Aurelius Investments.
  - Saint-Gobain announces that it has completed the acquisition of, **Rockwool India** Pvt Ltd., a major manufacturer of stone wool in India with a wide range of insulation products for thermal, acoustic and fire safety applications. Rockwool India has two manufacturing facilities in the country, one in Hyderabad and another in Silvassa, with a total capacity of around 50,000 tonnes. It has a strong marketing network across the country.
  - Saint-Gobain enters into an agreement for the sale to Wolseley UK of **Ideal Bathrooms**, its remaining **UK** distribution brand specializing in plumbing, heating and sanitaryware products.
  - The Group announces **record growth, earnings and margin annual results** for 2021, with a recurring net income of €2,815 million, up 91% on 2020 and 47% on 2019. As to its **non-financial performance**, Saint-Gobain announces a further reduction in scope 1 and 2 CO_2 emissions despite the sharp increase in sales.
- **March 2022**
  - Saint-Gobain announces it will invest €120 million in the coming years, starting in 2022, to **increase its insulation production capacity in France** and support the acceleration of the energy renovation market. Saint-Gobain will bring to the market additional volumes that, which will **enable the equivalent of 100,000 additional homes to be renovated each year**.
  - Thanks to Saint-Gobain's construction chemicals, the 1915 Çanakkale Bridge (Turkey) is officially the longest bridge span in the world (4.6 km). This colossal project relies on the Group's large panel of products and tailor-made solutions to address durability and workability specifications.
  - Saint-Gobain announces it will offer **1,500 work-study positions in France** at the start of the September 2022 school year, in addition to the 700 work-study students already on the payroll. The Group's **Apprentice Training Center** (CFA) in France, "Génération Saint-Gobain", on its part, will welcome its third class at the start of the new school year.
  - The Board of Directors of Compagnie de Saint-Gobain decides to propose to the next Shareholders' General meeting the renewal of the term of office of **Pierre-André de Chalendar** as Director. It also proposes to maintain the position of Lead Independent Director, held by **Jean-Dominique Senard**; the ratification of the co-optation of **Lina Ghotmeh**, as an independent director, and the appointment of **Thierry Delaporte** as a new independent director.
- **April 2022**
  - Saint-Gobain enters into an agreement for the sale of **Tadmar**, its **distribution** brand specializing in plumbing, heating and sanitaryware products in **Poland**, to the Polish company 3W. This divestment marks the complete exit of Saint-Gobain from distribution in the country.
  - Saint-Gobain announces that it has completed the acquisition of **IMPAC**, a leading player in the construction chemicals market in **Mexico**, with recorded sales of nearly €50 million in 2020. The company operates a production plant in Monterrey and employs around 630 people. This acquisition will enable the Group to consolidate its leading position in Latin America while accelerating its growth momentum in the region and expanding its offering of solutions for the sustainable construction markets.
  - The Gyproc plaster plant in Frederikstad, Norway, has been presented with the **Renewable Energy Award 2022**. The plant will reduce its energy consumption by 30% and its carbon emissions by 23,000 metric tonnes of CO_2. The project has been supported by the Norwegian Ministry of Climate and Environment.
  - Saint-Gobain and the Turkish group **Dalsan** announce that they have entered into a joint-venture agreement pursuant to which they will merge their **plaster** and plasterboard activities in **Turkey**. They will benefit from a leadership position with an annual production capacity of 100 million square meters for plasterboard, 2 million tonnes for plaster and 50 million meters for metal profiles.
  - Saint-Gobain announces **sales at a new record high in first quarter** 2022, with a **very strong 16.4% organic growth** on supportive underlying markets. Thanks to an acceleration in prices - enabling the generation of a positive price-cost spread in the first quarter - and a fast-paced deployment of the solutions proposed by the Group for energy efficiency and decarbonization, **Saint-Gobain's 2022 outlook** is thus confirmed.

- **May 2022**
  - Saint-Gobain upgrades its digital communication tools and launches its new **saint-gobain.com** website, with better readability of the Group's news, strategy and challenges. Saint-Gobain has completely overhauled its **digital ecosystem**, which also includes a galaxy of business-focused country websites and a collaborative extranet, available to the Group's 166,000 employees.
  - The Group enters into binding agreements for the sale of **International Decorative Surfaces** (IDS), its specialist flooring, worktop and laminate **distributor** in the **UK** to Chiltern Capital. In addition, Saint-Gobain has also reached binding agreements for the divestment of **two glass processing facilities** specialized in the manufacturing of double-glazed units in the UK.
  - The Group announces the closing of two acquisitions in High Performance Solutions: **Global SFC**, a technological leader in nano-ceramic window film coatings, located in **South Korea**, and **Monofrax LLC**, a regional leader in fused cast refractories in the **United States**.
  - Saint-Gobain enters into binding agreements for the sale of certain **ceramic businesses** in **Brazil** and the **United States** – mainly destined for the traditional iron and steel industry – to the Japanese company Shinagawa Refractories Corporation.
  - Saint-Gobain becomes the first player in the world to achieve **zero carbon production of flat glass**. This technological feat is achieved by using **100% recycled glass** (cullet) and **100% green energy**, produced from biogas and decarbonized electricity. It was implemented in Saint-Gobain's flat glass manufacturing plant in Aniche, northern **France**. Saint-Gobain has set the objective to make use of 50% of cullet in glazing produced in this site by 2030.
  - Saint-Gobain enters into an agreement to acquire the companies **Fibroplac**, specializing in the production of gypsum **plasterboards**, and **Falper**, which has developed an advanced digital solution for the design and manufacturing of **light steel structures**. These two acquisitions will reinforce and accelerate the strong growth of Saint-Gobain in **Portugal**.
  - Saint-Gobain enters into agreements for the sale of its glass processing businesses **Eckelt Glas** and **Glas Ziegler** in **Austria** to the privately-owned German group Aequita, as well as the sale of its holding in the co-venture **Glaskontor Erfurt** – a glass processing business in **Germany** – to the Caleoglas Group.
  - The Bach Long Bridge, built on the Northern Vietnam highlands, is the longest glass bridge in the world, thanks to Saint-Gobain's glass solutions.
  - The Group announces that it has entered into a definitive agreement pursuant to which Saint-Gobain will acquire **Kaycan Ltd.**, a family-owned **manufacturer and distributor of exterior building materials** in **Canada** and in the **United States**. With this acquisition, Saint-Gobain becomes the top siding player in Canada and enlarges its vinyl offer across the United States with complementary solutions including notably aluminum and engineered wood.
- **June 2022**
  - Saint-Gobain confirms that it is targeting a **further increase in operating income in 2022** compared to 2021 at constant exchange rates. In first-half 2022, the Group expects the **operating income** to exceed the record level of first-half 2021 and to achieve a double-digit **operating margin**.
  - Mr. Pierre-André de Chalendar's term of office is renewed by the **General Shareholders' Meeting** and the Board of Directors reappoints him as Chairman of the Board of Directors. In addition, the General Shareholders' Meeting ratifies the co-optation of Ms. **Lina Ghotmeh** and approves the appointment of Mr. **Thierry Delaporte**. As Ms. **Anne-Marie Idrac** reached the age limit, her term of office expires at the end of the General Shareholders' Meeting. The General Shareholders' Meeting also approves the payment of a dividend of €1.63 per share (compared to €1.33 for fiscal year 2020).
  - The Group announces an **investment** of approximately CAD$90 million in its plasterboard plant close to Montréal, **Canada**, to increase its production capacity by about 40% and transform it into the first carbon-neutral **plasterboard** plant in North America. The new facility will be operational in 2024.
  - Saint-Gobain Romania and ENGIE Romania sign a partnership to build the largest photovoltaic park in the country, a 140,000 m^2 park, comprising more than 15,000 solar panels dedicated for supplying power to the industrial site in Călărași.
  - Saint-Gobain awards the prizes for the 17th edition of its **international "Architecture Student Contest"**. The challenge of this edition, organized in close collaboration with the municipality of Warsaw, was to design a project aimed to revitalize an area located next to the Warszawa Wschodnia (Warsaw East) railway station, by working simultaneously on the performance as well as the **architectural, environmental and social aspects**.
  - The Duo Towers, the third highest building in Paris, are delivered. They have been built thanks to the combination of the Group's expertise in the fields of glazing, construction chemicals, partitions and ceilings.
  - Saint-Gobain launches its new **global brand campaign**, "New World", which aims to establish the Group's vision as the worldwide leader in light and sustainable construction. This campaign, is based on the concept of "Everything can be transformed" to demonstrate **how Saint-Gobain's solutions are transforming the construction sector** to make it **more sustainable, resource-efficient, circular, less carbon-intensive**, more efficient and more competitive.
  - Saint-Gobain unveils its new **sponsorship and philanthropy policy**, called "Build Change". It includes two components linked to the major challenges facing the construction sector: the **training of young people**, future professionals in sustainable construction, and **access to decent and sustainable housing for all**.

- **July 2022**
  - Saint-Gobain signs a binding agreement to sell its **wood processing and distribution business** in **Denmark**, **Protrae**.
  - In China, SEFPRO announces the creation of a joint-venture with AFR, a young company producing high-performance fused-cast refractories allowing for the decarbonation of the glass industry.
  - The Group completes the acquisition of Kaycan, announced in May 2022. Kaycan joins the local North American **construction business**, within the **Americas** Region.
  - Saint-Gobain acquires **Fade Acoustic Ceilings Europe**, a Danish company specializing in seamless acoustical coatings for all types of surfaces, as well as **Clipso**, specializing in stretched acoustic fabrics. Both businesses are integrated into Ecophon, which also becomes a minority shareholder in Muffle Limited, a UK-based company specializing in the distribution of acoustic solutions.
- **August 2022**
  - Saint-Gobain successfully prices a triple tranche **EUR 1.5 billion bond issue** (3, 6 and 10 year maturity). The 10 year tranche is a Sustainability-Linked Bond (SLB) **indexed to sustainable performance indicators**. Over 200 investors showed their confidence in the Group's credit quality. The SLB is linked to two important indicators of Saint-Gobain's sustainability roadmap: the reduction of its CO_2 emissions and the reduction of non-recovered production waste.
- **September 2022**
  - Saint-Gobain announces that it has entered into an exclusive negotiation process for the sale of its **Crystals and Detectors** business – part of High Performance Solutions – to a consortium led by SK Capital Partners associated with Edgewater Capital Partners, both US private equity firms with expertise in advanced materials.
  - Saint-Gobain announces the closing of the sale of **Saint-Gobain Glassolutions Grand Ouest** (North-Western **France**) glass processing business to a group of private investors, led by former Saint-Gobain managers.
  - The **Science Based Targets initiative** has approved Saint-Gobain's greenhouse gas emission reduction targets as consistent with the organization's new net zero standard and the Paris Climate Agreement. Saint-Gobain is **the first company in its sector worldwide to receive this approval** since the introduction of the new standard at the end of last year.
  - Saint-Gobain signs a **renewable electricity agreement** (Power Purchase Agreement) with **Tion Renewables AG** (currently being renamed from Pacifico Renewables Yield AG), the German wind and solar power producer. The 15-year agreement will run from 2025 and cover around 45% of Saint-Gobain **Poland**'s electricity needs.
  - In **France**, Saint-Gobain is the first manufacturer to **produce and commercialize a plasterboard made from more than 50% recycled gypsum**, while maintaining the same technical and functional performance as a standard plasterboard. The Group is firmly committed to **accelerating the transition to a circular economy**, taking into account the entire life cycle of its products and solutions, in order to limit their consumption of natural resources, extend their lifespan and encourage their recycling.
  - Saint-Gobain obtains approvals from all relevant competition authorities for its acquisition – announced in December 2021 – of **GCP Applied Technologies** Inc., a major global player in **construction chemicals**, with established success in cement additives, concrete admixtures, infrastructure and commercial and residential building materials. GCP generated in 2021 approximately $1.0bn revenues thanks to 1,800 employees working on 50 production sites in 38 countries. The specialty building materials business in North America (c. $250 million of sales) will be integrated into the **CertainTeed** business serving local customers in its Region. All other businesses, consisting of mainly concrete admixtures and cement additives (c. $750 million of sales) will be combined with the **Chryso** business and be part of the **High Performance Solutions** segment.
  - Saint-Gobain and the solar manufacturer **Megasol**, the European leader in **Building Integrated Photovoltaics** (BIPV), announce a strategic partnership. As part of this partnership, the Group acquires a minority stake in Megasol's business unit that develops and manufactures building-integrated photovoltaics at its site in Deitingen in Switzerland.
- **October 2022**
  - Saint-Gobain and **Ecocem**, an Irish company specializing in low carbon cement, have today announced a major partnership focused on accelerating the delivery of **low carbon products** to market. Designed to **reduce CO_2 emissions from cement, mortar, and concrete**, these products will support the acceleration of the construction industry's transition to a low-carbon economy. As a 25% shareholder, Saint-Gobain has been a significant investor in Ecocem for almost 15 years,
  - Saint-Gobain signs a 10-year renewable electricity supply agreement (Power Purchase Agreement or **PPA**) with **TotalEnergies** for the purchase of solar power for its **145 industrial sites in North America** (United States and Canada).
- **November 2022**
  - Saint-Gobain and property developer Icade sign an agreement so as to produce **buildings with a low environmental footprint** (for offices as well as housing and healthcare purposes) in France. Thanks to the combined know-how of both companies, this partnership will allow for the scaling up of low-carbon new construction and renovation.
  - Euroméditerranée (EPAEM), a public organization, and Saint-Gobain, make strides in two joint projects featuring **the usage of excavated soil in construction** in South-Eastern France, one for single-family houses and the other for a university campus.
  - Saint-Gobain signs a **Power Purchase Agreement** (**PPA**) with the top energy supplier in Spain, Endesa. This 11-year agreement will start in 2024 and will cover around 55% of Saint-Gobain's electricity needs in Spain. The electricity supplied by Endesa will be generated by its **renewable portfolio**: wind, solar and hydroelectric power. This agreement will enable a reduction in CO_2 emissions of roughly 39,000 tonnes per year.

- **December 2022**
  - Saint-Gobain completes the sale, announced on September 1st, 2022, of its **Crystals and Detectors** business – part of High Performance Solutions – to a consortium led by SK Capital Partners associated with Edgewater Capital Partners, both US private equity firms with expertise in advanced materials. This transaction aims at focusing the Group's High Performance Solutions activities on markets where Saint-Gobain, thanks to its leadership positions and its innovation capabilities, enables its customers to accelerate towards carbon neutrality and circularity.
  - Saint-Gobain signs a binding agreement for the sale of all its **merchanting brands** in the **United Kingdom** – including the builders and timber merchant Jewson – to the Stark group. This transaction will be completed in the first quarter of 2023.

Legend:
- *portfolio operations*
- *distinctions and awards*
- *announcements and commitments*

1.3.2 FEEDBACK ON A TRANSFORMATIVE YEAR

In 2022, **Saint-Gobain progressed at a very fast pace, on an ambitious path, the lines of which are defined by its "Grow & Impact" strategic plan**, announced in October 2021. Through this plan, the aim is to accelerate the Group's transformation into an organization that is resolutely focused on its customers, capable of providing them with solutions that address the complex issues they face (see section 2.3.2, p. 57). **Key performance indicators show that the results are already on track**, with a more efficient, more agile organization and an optimized profile (€13 billion in disposals and acquisitions since the start of the "Transform & Grow" plan); with significant growth in sales (+23% between 2018 and 2022) and operating income (+66% between 2018 and 2022); with a record cash flow (€3.8bn); with a two-digit operating margin for the second year in a row (10.4% in 2022); with a continued increase in the net promoter score [8] (from 22 to 37 between 2019 and 2022); and with continuous progress towards a more sustainable model thanks to a CO_2 emission reduction of -27% between 2017 and 2022). **These results are all the more significant given that the context is particularly volatile**. Several phenomena are taking place at the same time, calling into question the global equilibrium: firstly, with the rise of confrontations between East and West, between South and North, between democracies and illiberal regimes; on the logistical front, with the disruption of supply chains and the surge in commodity prices; on the economic front, with the return of inflation and recession. These changes have a direct impact on the Group's business model, through crucial issues such as consumption, the organization of production and the rapid increase in energy costs, a distinguishing feature of 2022. The quest for restraint in energy use, an essential subject for the preservation of natural resources as well as the decarbonization of the construction sector, is made even more urgent by the crisis in energy prices. As an industrial group operating production facilities for glass, gypsum, mineral wools and refractory products, Saint-Gobain is naturally a major energy consumer. To reduce its consumption, the Group uses a range of solutions, from operational excellence through the WCM program (see section 3.1.3.B.a, p. 77) to faster progress towards the circular economy, through data collection and the deployment of new algorithms, the modernization of equipment, the optimization of logistics, and, of course, the widespread use of eco-responsible actions by all teams, regardless of their business line or the type of site where they work.

These constraints define a world in which instability gradually becomes the norm rather than the exception; they combine with **megatrends that are part of the long term**, such as climate change, the depletion of natural resources, population growth, digitalization and lifestyle changes (see section 2.1.1, p. 43).

In this context, the Group, which aims to be the world leader in sustainable construction, offers **tangible solutions for markets in the renovation of existing buildings, light construction, and decarbonization of the industrial and construction sectors**. In this sense, Saint-Gobain's business model, which combines performance and sustainable development, is **a lever to accelerate the transformation of the economy and society and thus enable them to meet the global challenges they face**.

This unique role that Saint-Gobain plays in the ecosystem of its stakeholders **implies an unwavering commitment from all its teams**. For them, this means constantly moving towards a more agile and efficient organization, measurable through indicators such as margins, the cost-to-price ratio, and cash flow conversion. The aim is then to determinedly pursue efforts around energy savings, which are directly linked to the Group's carbon footprint, and around all aspects of its CSR roadmap. To achieve Saint-Gobain's medium and long-term objectives, **the "Grow & Impact" plan is transforming the Group's organizational structure to put the customer at the heart of innovation**, by systematizing the search for progress on all fronts, from zero-carbon industrial processes to light construction systems, as well as solutions to further limit the use of virgin natural raw materials. The following are all synergy levers which serve this objective: the deployment of key account managers, giving customers a single point of contact for all of the Group's solutions; the design of comprehensive offers ranging from co-design and consulting to distribution and services; the development of cross-selling between distribution and industry; the widespread use and rationalization of data; the optimization of logistics flows.

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(8) *Net Promoter Score: to the question "I would recommend my company as a good place to work" asked to employees, the NPS measures the difference between the percentage of "Fully agree" answers and the sum of "Somewhat disagree" and "Fully disagree" answers.*

In 2022, Saint-Gobain continued to transform itself in a determined way. The Group has clearly positioned itself on the market as a complete solution provider. Saint-Gobain systematically uses digital technology to facilitate customer relations, craftsmen's work, internal communication and team engagement, as well as the management of industrial operations. This dynamic is based on **a concentrated and disciplined strategy of investing** in the Group's productive base around the world, in order to increase production capacity and make it more efficient, less wasteful, less polluting in greenhouse gas emissions and better adapted to local market demands. It also relies on **rigorous management of Saint-Gobain's portfolio of brands and activities**, creating value through acquisitions strengthening its business model and its capacity to create value for all its stakeholders.

From this point of view, 2022 marks a turning point for the Group, which has become **a world leader in construction chemicals**, with brands such as Chryso, Weber, Quartzolit and TekBond. The most recent step in this development is the acquisition, completed in September, of **GCP Applied Technologies** Inc., recognized for its expertise in admixtures for construction materials and solutions for infrastructure, non-residential and residential construction. In the field of High Performance Solutions, **Saint-Gobain in late 2022 was able to present itself as a world leader in the decarbonization of construction and industry**, thanks to its global organization, its unique expertise in materials science, and its ability to implement a controlled innovation process.

1.4 THE GROUP'S ACTIVITIES

The Group designs, produces and distributes solutions that are found everywhere in our homes and our daily lives – individual, collective and non residential buildings, transport, infrastructure – as well as in many industrial applications. These solutions provide the Group's customers with benefits in terms of performance and sustainability (see section 3.1.4.C, p. 85), while meeting the challenges that shape the future of the economy and society.

Today, Saint-Gobain already covers most of the applications for **renovation** as well as for **new construction**, and in particular sustainable construction: interior systems (partition, insulation, ceilings, floor coverings), exterior systems (façades, glazing, roofing solutions, waterproofing) for traditional as well as light construction – as products or systems that can be pre-assembled or prefabricated – and the distribution of products, solutions and services for construction and housing.

The Group's high performance solutions, for their part, help meet the market's growing needs on issues such as the decarbonization of construction processes, sustainable mobility and sustainable industry.

1.4.1 AN OFFER BASED ON THE EXPECTATIONS OF SAINT-GOBAIN CUSTOMERS

A – Customers in the construction and renovation market

a. Single-family homes

On all continents, the Group markets solutions which combine innovative products and services for the building envelope (with brands such as Saint-Gobain, Weber, Isover and CertainTeed, the market leader in North America), with interior solutions (with brands such as Placo®), or services dedicated to professionals and individuals (with programs such as Solu+ or La Maison Saint-Gobain in France).

For the construction of a single-family residence, the Group offers a whole range of solutions for both inside and outside the house, and for pipes, ventilation and electricity. Saint-Gobain is also making progress on innovations such as 3D printing to optimize construction time and minimize waste production.

In several countries the Group also has a presence in the retail market, with brands such as Point. P, Telhanorte, Optimera and Dahl, which makes it possible to offer an unrivaled range of solutions, particularly in the case of renovation. In France, Saint-Gobain offers a range of products and services through its retail brand Point.P and various specialist brands, from thermal insulation to adhesives, as well as partition solutions and construction site waste collection services. The Group leverages the strength of its offering to take full advantage of the renovation market opportunities. This involves, for example, bringing to market a complete series of solutions for the use case (about this concept, see section 1.4.2.A, p. 29) involving the renovation of a single family home (33 products and services), helping to achieve long-term energy efficiency objectives (with 70% savings), better comfort (acoustics, luminosity, and air quality, in particular) and lower CO_2 emissions (275 tonnes of CO_2 equivalent over 50 years by housing unit).

b. Collective residential and non-residential

Saint-Gobain responds to the complex issues of the construction and renovation of multi-family residential and non-residential buildings, with solutions covering both the interiors of buildings and the distribution of spaces, through partition systems (in particular to allow subsequent reuse or change in the use of spaces throughout the life of the building); on the building envelope, in particular by offering innovative solutions for lightweight façades combining several systems and products, or through the supply of cutting-edge glass solutions; recycling services to recover waste on construction sites, in particular to supply its industrial manufacturing processes, in a circular approach. In Brazil, no less than 13 products and services are integrated into the solutions proposed by the Group for the use case involving the construction of a collective residential building; in Germany, this number is 21. Saint-Gobain's offering provides its customers (developers, architects, building professionals, property owners, and end users) with a whole range of benefits, notably in terms of reducing energy costs, speeding up construction, reducing the carbon impact, and easier dismantling. The Group's advanced expertise in the field of innovative materials also enables architects to design iconic buildings with original and innovative shapes.

Saint-Gobain thus supports market demand on all continents by providing solutions adapted to each region of the world. Its offer meets expectations in terms of reducing greenhouse gas emissions, in terms of housing volume and price, and in terms of comfort and well-being.

B – Industrial customers

a. Mobility

Saint-Gobain's advanced expertise allows mobility market players to respond to the daunting challenges they face. The accelerated shift of the automotive sector towards electric vehicles, under fast-paced innovation and increasing regulatory pressure (the European Commission has notably announced the end of sales for non-electric cars on the continent by 2035) calls for technologies enabling progress in terms of vehicle weight, thermal and acoustic insulation of the car cabin, shared mobility, vehicle automation and connectivity.

With brands such as Sekurit, Saint-Gobain manufactures and delivers windshields, side windows, rear windows, glass roofs and pre-assembled modules to major car manufacturers. These solutions ensure everyday comfort for drivers and passengers and respond to the changes in mobility in terms of use and regulations, notably regarding to the environment. The Group is thus a key player in the transition of the automotive market (see section 2.1.2.C, p. 50). As number one in the glass market for electric vehicles, it offers a whole series of solutions (in particular with systems for insulation, batteries and electric motors) to improve their performance in terms of energy efficiency, well-being, security and connectivity.

Saint-Gobain is also present in the distribution of automotive replacement glass on the independent market and has a network of repair stations in Europe.

The Group is present in every part of the transport market with glazing intended for the aeronautics and rail sectors, ships and industrial vehicles. Saint-Gobain also designs and supplies bearings and tolerance rings designed to reduce weight, noise and vibrations, and improve vehicle performance. For the aerospace market, the Group provides high performance technological solutions, such as polymers, composite mold-release films, seals and low-pressure conduits. It also manufactures air and ground radomes providing maximum radio frequency protection, while ensuring uninterrupted communication with optimal reliability.

b. Other industries

For all of its industrial customers in these sectors, Saint-Gobain is a reference partner for the decarbonization of industry, providing high performance solutions and meeting market expectations thanks to its capacity for innovation, its research and development potential, its proximity to its customers and its use of digital technology and data analysis.

The Group draws on strong expertise in materials science and formulation science. It has expertise in multiple state-of-the-art applications that make use of the specific properties of its materials (high temperature resistance, abrasion, chemical stability, surface properties, etc.). Many products are developed jointly with customers to cater to their specific needs, particularly in plastics, construction chemicals, and high performance refractory products for the metalworking and glass manufacturing industries. These areas of expertise are essential for the decarbonization of industry.

1.4.2 A RANGE OF SOLUTIONS BASED ON BUSINESS EXPERTISE

A – Solutions for local and global markets…

Based on the results of the "Transform & Grow" plan running over the 2019-2021 period, Saint-Gobain today draws on its global presence and its extensive offering to provide market players with a **genuinely solution-based approach**, which is one of the pillars of its "Grow & Impact" strategic plan. Beyond the traditional approach of meeting a specific need with an appropriate product, the objective is to offer its customers **end-to-end support for complex issues** modeled as use cases, in other words, illustrations of specific cases such as the construction of a single-family house or the renovation of a hospital. The Group analyzed all of its product and service lines to define 22 use cases in which it offers **solutions for local markets** (new construction and renovation for residential and non-residential buildings) and four use cases in which it proposes **solutions for global markets** (sustainable construction, sustainable mobility, sustainable industry).

Saint-Gobain's organization by country and by market enables it to operate as close as possible to its customers and anticipate their expectations, taking into account local specificities, whether in terms of architectural styles, building methods, climate, standards and regulations, or cultural particularities.

By capitalizing on this proximity to its customers, by combining its skills, by inventing new services, by strengthening synergies between its business lines, by accelerating innovation and use of data, by offering its employees an open and inclusive working environment, the Group differentiates itself and offers **the widest range of integrated solutions on the market** to better meet the expectations of its customers, as well as performance and sustainable development challenges.

B – … incorporating strong business expertise

a. Glazing for buildings and vehicles

To address the challenges associated with protecting the environment, aesthetics, comfort, ergonomics and safety, Saint-Gobain develops, produces and sells **high-tech glazing solutions** intended for the façade, window and interior decoration markets and to protect assets and people. With brands such as Saint-Gobain, GlassSolutions, Vetrotech and SageGlass (see below, section 1.4.3, p. 34), the Group's offering ranges from the production and transformation of flat glass to the distribution of glass solutions for the building market.

Saint-Gobain aspires to be the partner of choice for its customers: installers, processors, manufacturers, distributors and architects. The Group’s glass solutions **improve the energy efficiency of buildings and user comfort in all its dimensions**: thermal insulation, control of light inputs, aesthetics, interior design and decoration, protection against bullets and fire. These properties are obtained as a result of thin film technologies: using physical and chemical methods, stacks of films transform the glass into functional glazing. This means that **the most complex glazing** can consist of up to twenty successive layers. Saint-Gobain presents itself as the technological leader in the sector by bringing to market innovations such as Priva-Lite active glazing, which is electrically opaque on demand, or SageGlass solutions, with variable tint, mainly offered for façade projects. State-of-the-art offers also meet specific needs: glazing with burglar resistance or fire protection capabilities.

The Group’s glazing solutions play an essential role in both the **construction market** and the **renovation market** (see section 2.1.2, p. 47) by providing strategic benefits, particularly in terms of energy savings. In the case of the construction of an office building in India, for example, this results in savings of 9% on the annual expenditure on temperature regulation (i.e., more than €50,000 per year) compared with standard glazing. These advances include solutions such as the integration of Eclaz One in façade solutions for the construction of new multi-family buildings, or Planitherm Stadip glass for the renovation of single-family homes, in particular to increase the reflection of thermal infrared rays and limit the loss of heat by radiation.

Saint-Gobain is present with its glazing solutions across the entire value chain of the transport market (cars, trucks, public transport, rail, aerospace industry), from production to distribution and maintenance. The Group provides its clients with solutions thanks to brands such as Saint-Gobain (flat glass manufacturing and sales), Sekurit, a brand with a long history of bringing safety and comfort benefits to the automotive market (automotive glass and windshields), Sekurit Service (production and distribution of replacement glazing), GlassDrive and France Pare Brise (automotive glass fitting and repairing).

Endlessly recyclable, glass, in all its forms – from window and façade glass to automotive glass – is one of the areas where the Group’s commitment to the **development of the circular economy** materializes (cf. section 3.4, p. 115). This requires both investment in industrial processes – in particular to eliminate all types of contaminants present in glass waste – and also the development of efficient and sustainable collection networks. It is in this spirit that Saint-Gobain Glass France signed partnership agreements from 2019 with several companies specializing in the recovery of end-of-life windows. At the same time, Saint-Gobain Glass is developing several cullet sorting lines on its flat glass manufacturing sites, to ensure optimal sorting before adding this secondary material to the product mix. During spring 2022, the Saint-Gobain Group achieved a world first: manufacturing flat glass with 100% cullet and 100% green energy, for a zero-carbon production (scopes 1 and 2). Following this world first, Saint-Gobain Glass launched the world's first low-carbon glass, Oraé. The carbon footprint of Oraé is 40% lower than the European average for Saint-Gobain clear glass. Oraé is combined with the most efficient thin-film glazing in order to reduce both carbon emissions during use and the carbon footprint of the product.

b. Gypsum

Plaster-based solutions for partitions and coverings for walls, façades, ceilings and floors **provide Group customers with benefits** in terms of thermal and acoustic comfort, fire protection and humidity resistance, thus meeting the growing market demand. Gypsum is a decisive asset in Saint-Gobain’s vision, formulated as part of the “Grow & Impact” plan, and which aims to make the company the **worldwide leader in light and sustainable construction**. Among the advantages of this construction method (cf. section 2.3.5, p. 64), depending on the type of building, wall construction processes using plaster-based partitions can notably produce time savings of 20% to 50% compared to traditional materials, and bring environmental benefits such as reduced impacts in terms of CO_2 emissions and water consumption. In emerging markets in particular, the replacement of traditional masonry walls with plasterboard walls represents a very significant source of growth.

To develop this offer, the Group extracts and transforms gypsum into an extensive range of plaster-based products for the construction and renovation markets, through all of its brands such as Placo®, Rigips and Gyproc (see the list of Saint-Gobain's main brands below, section 1.4.3, p. 34), thanks to increasingly efficient and virtuous industrial facilities, particularly in terms of energy consumption, diversification of energy sources, and the commissioning of the first “low-carbon” plasterboard plant in Norway planned for 2023. These solutions comply with **the highest technological standards** and Saint-Gobain promotes their widespread adoption, they also remain a step ahead of new regulations concerning, for example, the elimination of formaldehyde to improve interior air quality (Activ’Air).

Gypsum can be recycled indefinitely in a closed loop, thanks to processes allowing the removal of contaminants embedded in the paper present on the faces of the plasterboard. The Group has waste recovery and gypsum recycling services in a dozen countries in order to supply its industrial sites with recycled raw materials (up to 30% of input materials in some plants), also **contributing to the Group’s strategic positioning in the global movement to expand the circular economy**. Saint-Gobain continues to expand in this market, strengthening its presence and industrial capacities, notably through the acquisition of Continental Building Products in the United States in 2020. In September 2022, Saint-Gobain launched the world's first plasterboard made from 50% recycled plaster. Called Placo® Infini 13, this innovation was developed at the Placo® plant in Chambéry, France. Saint-Gobain has also announced its first carbon-neutral plasterboard plant in Fredrikstad, Norway, to be operational by early 2023.

c. Ceilings

Through its **portfolio of complementary brands**, such as Ecophon, CertainTeed, Eurocoustic, Sonex, and Vinh Tuong (see the list of the Group's main brands below, section 1.4.3, p. 34), Saint-Gobain is **one of the world leaders in ceiling solutions**, providing benefits particularly in terms of thermal and acoustic insulation. The Group offers a **wide range of multi-material solutions** for ceilings and wall panels that combine acoustics and aesthetics for the comfort and well-being of the end user. Its main brand, Ecophon, develops high-performance acoustic systems (capable of halving noise pollution) intended primarily for non-residential markets (offices, schools, healthcare buildings). In 2022, the Saint-Gobain Group strengthened its presence in the acoustic insulation and ceiling markets through the acquisition of several international companies, including Clipso and Fade. These acquisitions complement the Group's know-how and geographical presence to offer to all its customers the most suitable solutions for their projects, whether it be museums, schools, hospitals, offices, collective or individual housing, or professional recording studios.

d. Insulation

In **residential and non-residential buildings**, Saint-Gobain's insulation market offering meets the **challenges of reducing energy consumption and improving thermal and acoustic comfort**. All of its brands, such as Isover, CertainTeed and Izocam, offer a wide range of products, from mineral wools (glass wool, rock wool), to polystyrene and polyurethane foams – on specific markets –, to bio-sourced products (wood fibers), thus covering the insulation needs of all types of buildings as well as their interior installations (roofs, walls, floors). Its offer brings benefits in terms of **ease of installation** for professionals and in terms of efficiency and sustainability for investors and owners.

The Group has considerably increased its production of glass wool for blowing, a mechanized solution, greatly reducing installation time. It is complemented by a whole range of solutions for insulating heating or air conditioning systems, improving their efficiency and reducing their energy consumption. The Climaver range, for example, is a "two-in-one" product that replaces metal ducts as well as the thermal and acoustic insulation used to protect them. The solutions proposed by Saint-Gobain for the exterior and interior insulation of walls also **support the strong momentum in the renovation market** (see section 2.1.2.A, p. 47), with innovations such as Optimax Habito, which saves installation time by 20% on average, reduces the risk of injury, and also reduces waste on site and makes the materials used in this solution completely recyclable.

The Group also provides **cutting-edge insulation solutions** for a very wide range of applications outside construction, ranging from engine compartments and vehicle interiors (cars, railcars, ships, etc.) to household appliances and photovoltaic panels.

In the insulation market, Saint-Gobain is once again demonstrating its **commitment to circularity**. It should be remembered that mineral wools can be recycled indefinitely. In France, Isover is the first player in the market to have launched a **glass wool waste recovery service**, recycling the waste by reinjecting it back into the company's production process. The Group acts both through the technical characteristics of its solutions and through initiatives such as its ILOOP project, supported by the European Union, to contribute to the gradual recovery of glass wool waste generated on construction or demolition sites, as well as through its participation in the European project for the recovery of mineral wool waste, WOOL2LOOP.

e. Mortars and construction chemicals

Protecting, insulating and decorating are among the key functions of Saint-Gobain's façade offering. The Group is one of the world leaders in the field of mortars and construction chemicals with brands such as Weber, Chryso and GCP. **The Group's special tiling solutions ensure safety and ease of use.** In flooring, its solutions cover various fields of application: new and renovated subfloors, leveling and finishing prior to laying a floor, protective coatings for industrial flooring, decoration with the use of self-colored mortars, solutions for areas of high footfall and underfloor heating, as well as a pump truck service to improve the productivity and comfort of installers.

A range of mortars and coatings is available, covering **all areas of construction**, to help in structural work, rework and waterproofing solutions. A line of admixtures caters to the growing demand for improved technical properties in concrete for use in construction.

The Group is expanding rapidly on the **construction chemicals market**, notably thanks to the acquisition in 2021 of Chryso, specializing in admixtures for construction materials, providing differentiated and innovative solutions and employing 1,300 people, as well as significant acquisitions in Mexico (Impac), in Romania (Duraziv), and in Peru (Z Aditivos).

In 2022, Saint-Gobain continued to grow significantly in the construction chemicals markets with the acquisition of GCP Applied Technologies, a global provider in concrete admixtures, cement additives and specialty construction building materials, comprising 1,800 people, as well as the acquisition of SIB France, a French distributor of decorative mineral flooring, dyed in the mass and offering greater sustainability. Saint-Gobain also announced a major partnership with Ecocem, an Irish company specializing in low-carbon cement. This partnership focuses on accelerating the delivery of low-carbon products to market. Designed to reduce CO_2 emissions from cement, mortar and concrete, these products will support the acceleration of the construction industry's transition to a low-carbon economy. These acquisitions represent a decisive step towards establishing the Group as a worldwide leader in construction chemicals, with more than €4 billion in sales. Pooling these resources and solutions offers customers a highly comprehensive portfolio and global coverage.

f. Exterior products

Saint-Gobain, through its CertainTeed and Brasilit brands, is present in the United States and in Latin America with a full range of outdoor products. For roofs, the Group offers premium asphalt and composite shingles, solar roofing solutions, roll roofing systems and accessories. For façades, it offers polymer shakes and shingle, and insulation cladding solutions. Saint-Gobain also supplies solutions such as barriers, terraces and balustrades. Solutions incorporating these various products provide the Group's customers with benefits in terms of aesthetics, ease of installation and maintenance, and resistance to bad weather.

g. Distribution of products, solutions and services for construction and housing

Saint-Gobain serves hundreds of thousands of customers each year on the **construction, renovation and home improvement markets**. With brands such as CEDEO, Point.P, Optimera and Dahl (see the list of the Group's main brands below, section 1.4.3, p. 34), the Group has a network of strong and complementary brands, both generalist and specialist. Primarily oriented towards trade customers, the Saint-Gobain trading brands also serve small and medium-sized businesses and large companies and allow for a **presence of the Group across the whole construction value chain**. They also support individuals in the completion of their projects with professionals. The various brands thus strive to balance their customer portfolios, a guarantee of solidity and profitability. Another major asset is the regional network: in France, the Group has more than 2,000 sales outlets, anchored in the local fabric, able to serve the most dynamic economic areas.

The Group's expertise in the field of distribution is **key to achieve the strategic goals of the "Grow & Impact" plan** (see section 2.3.1, p. 57) by providing its professional clients with a large array of solutions and **making Saint-Gobain a one-stop-shop provider**. It also allows for a very **high degree of proximity with the Group's clients**, thanks to the value brought by data collection and analysis (see section 2.3.3, p. 58) and thanks to the **support** Saint-Gobain provides its clients across the board, including training on its products and services (see below). It also enables the Group to capture the structural growth of the residential building renovation market in Europe (see section 2.1.2.A, p. 47).

Logistics is essential to distribution and receives special attention through the automation and robotization of processes. The trading brands are making their system of centralized logistics bases and adapted delivery centers increasingly efficient. This allows for a successful deployment of Saint-Gobain's e-commerce offering (regarding delivery times especially) for low-volume and low-weight products in particular. To support logistics, robust information systems are necessary. Thanks in particular to **data collection and analysis**, **digital technology** is one of the tools available to Saint-Gobain brands to offer customers a unique omnichannel experience: e-commerce, m-commerce, enhanced product content (features, descriptions, visuals, technical and regulatory sheets, etc.), as well as digital services that save time. The teams also benefit from productivity tools (robotic process automation), machine learning and optimal data exploitation using data processing algorithms. This approach allows the Group to better understand and model product and customer targets to optimize the work of the sales force. Ultimately, digital technology acts as a lever to boost Saint-Gobain's growth (see section 2.3.3, p. 58).

Through distribution, Saint-Gobain is also committed to supporting its professional clients throughout their journey. On the French market, the Group is actively delivering on this commitment by designing and marketing services ranging from training (via the creation of apprentice training centers (cf. section 3.2.4.B.b, p. 98 sq.) or training provided to more than 10,000 clients regarding the RGE label [9]) to the recovery of site waste (notably thanks to a partnership agreement with Ecodrop, a construction site waste collection service), digital solutions offering assistance with estimates and costing on construction sites (with the Solu+ platform), and the rapid generation of estimates and invoices (with the Tolteck solution).

Lastly, distribution is an area where **Saint-Gobain's demanding stance in the area of responsibility** materializes. This is reflected, for example, in the **search for an ever-smaller delivery logistics footprint**, notably thanks to "low-carbon" delivery solutions, the optimization of circuits and the installation of sales outlets in the heart of urban areas, as well as through the use of distribution chains as an essential tool in the collection of waste from construction sites, with a view to **promoting the circular economy**. In 2017, Saint-Gobain Distribution Bâtiment France set up structures to collect waste from the same types of construction materials, products and equipment that it sells to professionals, thus becoming a key private network of site waste collection points in the construction and public works sector.

h. Piping

Saint-Gobain offers complete solutions **drawing on more than 165 years of experience** in the water supply market to meet the highest expectations. Through its PAM brands, the Group produces and markets ductile cast iron pipe systems for drinking water and sanitation, covers and gratings for roads, as well as cast iron systems for collecting and evacuating wastewater and rainwater in buildings. Saint-Gobain's offer is aimed at public authorities, public and private water companies, as well as players in the mining, hydroelectric and industrial markets. To guarantee the preservation of water quality and the sustainability of these solutions, the Group offers a set of certificates and approvals in full compliance with all standards and regulations in force in its markets.

[9] *French acronym "Reconnu Garant de l'Environnement" (recognized as environmentally friendly).*

i. Construction industry

Saint-Gobain manufactures technical glass fiber fabrics for customers in the **construction and infrastructure markets**. Its range of innovative and sustainable solutions, combined with strong customer commitment, can cater for every kind of market need: grid systems to strengthen walls and floors; glass fiber mat solutions to improve product technical performance; ranges of wall coverings, joint tapes and insect screens; geogrids for the reinforcement of asphalt surfaces; technical fabric solutions for thermal insulation and protection against fire.

j. Surface solutions

Saint-Gobain offers **comprehensive solutions to shape, protect and bond surfaces of all materials**. Its solutions include abrasives, adhesives, sealants, tapes, composites, and films for complex and challenging applications. By working closely with customers, expert partners, and end users, Saint-Gobain designs and provides customized surface solutions to secure the best option for performance, cost and safety. It serves a **wide range of global and local markets: construction and habitat** (from rough cutting of concrete walls and floors to sanding of wooden floors and decorative finishes), **heavy industry** (steelworks, paper mills, and mineral extraction), manufacturing and **high-tech industries** (automotive, aerospace, and electronics).

k. Ceramics

Saint-Gobain has extensive expertise in ceramics and refractory materials, that enables the Group to serve a wide variety of markets such as the metallurgical, glass and abrasives industries, the automotive industry (notably the electric batteries market), as well as the aerospace, electronics, security and chemistry markets.

Saint-Gobain's strong R&D and innovation capabilities in the field of technical ceramics are unique and key to help major industrial players and innovators achieve their objectives in terms of decarbonization, lower environmental impact, and contribution to a more circular economy. In the case of the glass industry in particular, the solutions offered by the Group, notably through its SEFPRO brand, enable its customers to succeed in their technological transition towards "low-carbon glass" by reducing their energy consumption and CO_2 emissions. Valoref, a subsidiary of Saint-Gobain, offers a used refractories collection service for the end of life of glass furnaces; these materials are recycled and transformed into usable secondary raw material.

1.4.3 MAIN BRANDS AND COMPETITIVE ENVIRONMENT

A – Businesses for regional customers

Brands

Main brands[10]	Positioning
SAINT-GOBAIN	Effective and sustainable solutions for more comfortable, safer living places.
glassolutions SAINT-GOBAIN	Processing and distribution of effective glass solutions for residential and non-residential sector construction.
vetrotech SAINT-GOBAIN	Fire-resistant and high-security glazed solutions for building and marine applications.
SageGlass SAINT-GOBAIN	Smart tintable glass solutions.
placo SAINT-GOBAIN, gyproc SAINT-GOBAIN, British Gypsum SAINT-GOBAIN, rigips SAINT-GOBAIN, formula SAINT-GOBAIN	Gypsum-based products and systems for interior solutions.
Ecophon SAINT-GOBAIN, eurocoustic SAINT-GOBAIN	Multi-material acoustic solutions such as ceiling tiles, islands, wall panels, fabrics and coatings.
isover SAINT-GOBAIN	Thermal, acoustic and fire-retardant insulation solutions.
weber SAINT-GOBAIN	Solutions for construction chemicals, including mortars, solutions for façades and external thermal insulation, tile adhesive solutions, floor preparation and flooring solutions, sealing solutions.
PAM SAINT-GOBAIN	Full pipe system solutions for water supply, sewage and industrial systems
France	
POINT.P VOTRE RÉUSSITE COMMENCE ICI	Distributor specializing in building materials and construction products distributor.
CEDEO SANITAIRE · CHAUFFAGE · PLOMBERIE	Distributor specializing in plumbing, heating, sanitaryware.
PUM	Distributor specializing in water, energy and telecommunication networks.
LA PLATEFORME DU BATIMENT GAGNEZ DU TEMPS ET DE L'ARGENT	Distributor for urban renovation professionals.
asturienne Pas de toit sans nous	Distributor specializing in roof solutions, leader on the French distribution market for roof windows and non-ferrous metals.
DISPANO BOIS PANNEAUX MENUISERIES	Distributor specializing in timber and byproducts for new construction and renovation markets.
North America	
CertainTeed SAINT-GOBAIN	Solutions for building exteriors and interiors: roofs, siding, fences, decks, trims, insulation, partitions and ceilings.
KAYCAN	Solutions of siding systems for new construction and renovation markets.
Brazil	
telhanorte	Distributor to professionals and private individuals of home improvement products and services.

(10) *All the brands mentioned are trademarks and/or registered in the name of Compagnie de Saint-Gobain and/or one of its subsidiaries.*

Brazil and Europe	
Alterna	International distributor specializing in sanitaryware and kitchens.
Spain	
Distriplac	Specialist retailer of interior solutions and insulation.
Europe	
Altech	International distributor specializing in plumbing, heating and ventilation products.
NOVIPRO	International distributor of tools, PPE, construction chemicals and site equipment.
Europe (excluding France)	
ULTIPRO	International distributor specializing in heavy building materials, roofing, interior solutions.
Nordic countries (Denmark, Finland, Norway, Sweden)	
DAHL	Distributor specializing in plumbing, sanitaryware, heating, ventilation, civil engineering, industry, and cooling products.
OPTIMERA	Distributor specializing in construction materials for professionals and private individuals.
BEVEGO BYGGPLÅT VENTILATION ISOLERING	Distributor specializing in steel, insulation and ventilation.
Switzerland	
SANITAS TROESCH	Distributor specializing in bathrooms and kitchens, for professionals and individuals.

Competitive positions [11]

- Glazing: number 1 in Europe, number 2 worldwide (excluding China);
- Plaster and plasterboard: number 2 worldwide (excluding China);
- Insulation (all types of insulation products): number 2 worldwide, world leader in mineral wool and number 1 worldwide in glass wool;
- Roofing: number 3 in the United States;
- Vinyl siding: number 2 in the United States;
- World leader in mortars, number 2 in mortars and construction chemicals;
- Decorative and acoustic ceilings: number 3 worldwide;
- A world leader in ductile cast iron pipe systems;
- Number 1 in Europe in professional building materials distribution;
- A major player in the plumbing-heating-sanitaryware market.

Main competitors [11]

- NSG (worldwide)
- AGC Corporation (worldwide)
- Guardian (United States)
- Sisecam (Europe)
- Various Chinese glass manufacturers
- Armstrong (worldwide)
- CNBM (worldwide)
- Johns Manville (China, United States, Europe)
- Kingspan (worldwide)
- Knauf (worldwide)
- Etex (worldwide)
- Technonicol (Europe)
- Rockwool (worldwide)
- Owens Corning (worldwide)
- GAF (United States)
- Ply Gem (North America)
- Sto (worldwide)
- Ardex (worldwide)
- Mapei (worldwide)
- Sika (worldwide)
- Duktus-VonRoll (Europe)
- Electrosteel (worldwide)

(11) *Internal sources.*

- XinXing (worldwide)
- Jindal (worldwide)
- Ahlsell (Scandinavia)
- Chausson, Herige, Samse (France)
- Stark Group (Germany, Austria, Scandinavia)
- CG Gruppe (France, Poland, Netherlands, Norway)
- Holcim (United States and Europe)

B – Businesses for global customers

Brands

Main brands[12]	Positioning
SAINT-GOBAIN	The Saint-Gobain brand is used for many business lines serving global customers.
SEKURIT GLAZING IN MOTION	Innovative glazing systems for the automotive sector.
SEKURIT service	Saint-Gobain Sekurit Service: distribution of replacement glazing and related products for businesses in the automotive after-sales market.
GLASSDRIVE	European network of fixed and mobile assembly stations for automotive glazing repair, fitting and replacement.
FRANCE PARE-BRISE	French network of specialist automotive glazing repair, fitting and replacement franchise operators.
NORGLIDE	Bearings, in particular for the automotive market.
ADFORS SAINT-GOBAIN	Reinforcement and covering solutions comprising a broad range of technical fabrics for construction (insect screens, reinforcement grids and mesh, joint tapes, wall coverings), industry (glass fiber mat and mesh fabrics) and infrastructure (geogrids for the reinforcement of asphalt surfaces) markets.
Vetrotex	Glass fiber reinforcement solutions for use in industrial and construction markets.
HKO TRUST THE EXPERTS	Technical fabric solutions for high-temperature thermal insulation and protection against fire and heat for the industry and automotive markets.
CHRYSO SAINT-GOBAIN	Solutions in construction chemicals.
gcp	Solutions in construction chemicals: cement additives, concrete admixtures and other specialty building materials such as fireproofing, waterproofing and specialty grouts.
NORTON SAINT-GOBAIN	Abrasive solutions for all markets, materials and applications.
NORTON clipper	Light construction machinery, diamond tools and abrasives for building and construction.
flexovit	Abrasives for industrial applications.
TEK BOND / ONE BOND	Adhesives and sealants for domestic and industrial use.

(12) *All the brands mentioned are trademarks and/or registered in the name of Compagnie de Saint-Gobain and/or one of its subsidiaries.*

NORSEAL	Gasketing foam tapes to protect against environmental and mechanical influences.
NORBOND	Foam bonding tapes with adhesives for bonding applications.
VERSIV™	Composite materials for release, friction, protection and dielectric insulation applications.
SHEERGARD	Solutions protecting reliability of electromagnetic signal for radomes and communication systems.
SolarGard SAINT-GOBAIN	Window films for automotive and architectural glass solar control, privacy and safety, as well as paint and surface protection products.
SEFPRO It's a matter of trust.	Refractory solutions for glass furnaces.
ZirPro	Ceramic beads for milling, ceramic beads and grains for blasting, zirconium oxide powders and chemicals for the EV, 5G, new energies, automotive, aerospace, and surface treatment industries.
Valoref	Waste management services for refractories and technical ceramics.

Competitive positions [13]

Saint-Gobain's competitive positions are estimated as follows:

- leader in zirconium-based abrasive grains, ceramic balls and refractories for the glass industry;
- leader for automotive glazing;
- number 1 worldwide for bearings for automotive applications;
- leader for single-use tubes for the pharmaceutical industry;
- number 1 worldwide for aircraft radomes for communications satellites;
- number 1 worldwide for glass fiber wall coverings.

Main competitors [13]

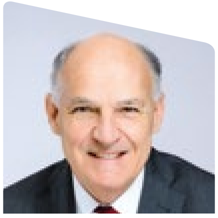
- Imerys
- Cumi Ceramics
- 3M
- Noritake
- Trelleborg
- NSG
- AGC Corporation
- Valmiera
- Fuyao
- Sika

(13) *Internal estimation.*

1.5 GOVERNANCE

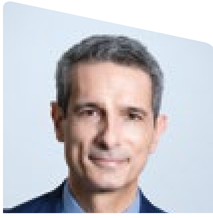
1.5.1 THE BOARD OF DIRECTORS

At December 31, 2022, the Board of Directors comprises the following members:



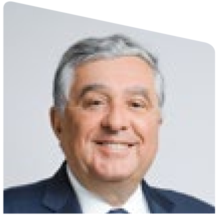
Pierre-André de Chalendar

Chairman of the Board of Directors of Compagnie de Saint-Gobain



Benoit Bazin

Chief Executive Officer of Compagnie de Saint-Gobain, Director



Jean-François Cirelli

Independent Director, Chairman of the Nomination and Remuneration Committee

Lydie Cortes

Employee Director, member of the Nomination and Remuneration Committee

Sibylle Daunis

Director representing employee shareholders

Thierry Delaporte

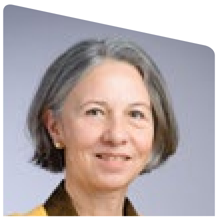
Independent Director

Lina Ghotmeh

Independent Director, member of the Corporate Social Responsibility Committee

Iêda Gomes Yell

Independent Director, member of the Audit and Risk Committee



Pamela Knapp

Independent Director, Chairwoman of the Audit and Risk Committee

Agnès Lemarchand

Independent Director, Chairwoman of the Corporate Social Responsibility Committee, member of the Audit and Risk Committee

Dominique Leroy

Independent Director, member of the Nomination and Remuneration Committee

Gilles Schnepp

Director, member of the Audit and Risk Committee

Jean-Dominique Senard

Lead Independent Director, member of the Corporate Social Responsibility Committee

Philippe Thibaudet

Employee Director, member of the Corporate Social Responsibility Committee

Secretary of the Board of Directors of Compagnie de Saint-Gobain:

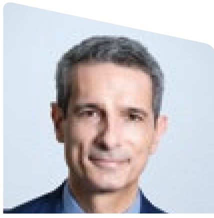
Antoine Vignial

Corporate Secretary

1.5.2 THE EXECUTIVE COMMITTEE

The Executive Committee

At December 31, 2022, the Executive Committee comprises the following members:

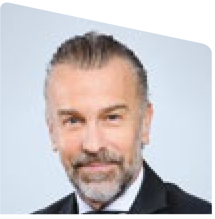


Benoit Bazin
Chief Executive Officer

Noémie Chocat
Vice-President, Corporate Strategy

Patrick Dupin
Senior Vice-President, CEO of the Northern Europe Region

Thierry Fournier
Senior Vice-President, CEO of the Southern Europe, Middle East, Africa Region



Javier Gimeno
Senior Vice-President, CEO of the Latin America Region

Cordula Gudduschat
Vice-President, Marketing and Development

Anne Hardy
Chief Innovation Officer

Benoit d'Iribarne
Senior Vice-President, Technology and Industrial Performance

David Molho
CEO of High Performance Solutions

Claire Pedini
Senior Vice-President, Human Resources and Corporate Social Responsibility

Laurence Pernot
Vice-President, Communications

Mark Rayfield
Senior Vice-President, CEO of the North America Region

Santhanam B.
CEO of the Asia-Pacific and India Region

Ursula Soritsch-Renier
Chief Digital and Information Officer

Sreedhar N.
Chief Financial Officer

Antoine Vignial
Corporate Secretary

The Executive Committee meets once a month. 37.5% of its members are women and 50% international profiles.

2

STRATEGY


VYCOR enV-S

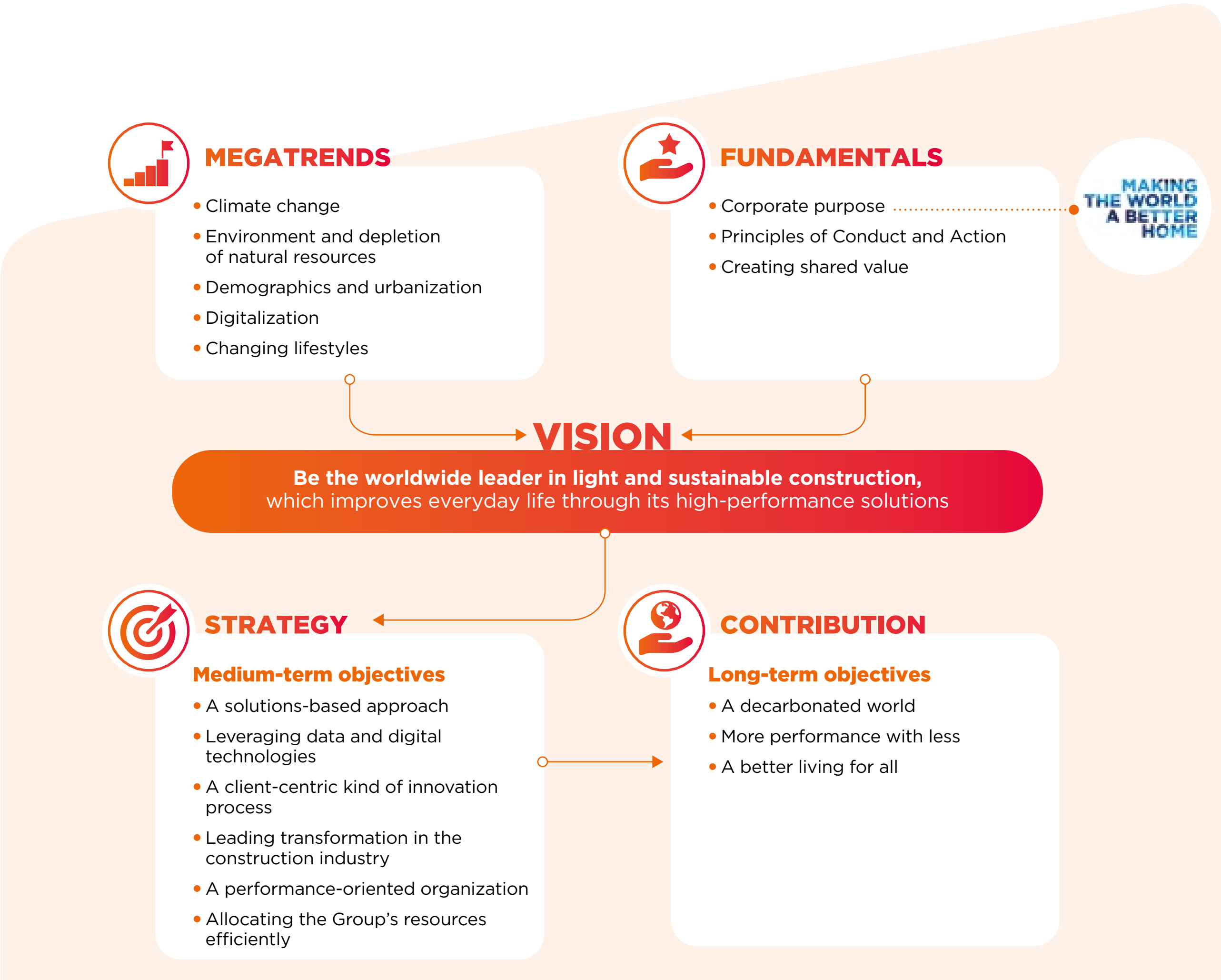
2 STRATEGY

In a highly volatile environment, determined both by cyclical crises and by **megatrends**, such as climate change, resource scarcity, continued urbanization, digitization and changes in lifestyles (see section 2.1.1, p. 43), **Saint-Gobain continues to evolve**. After the "Transform & Grow" plan (2019-2021), the "Grow & Impact" strategic plan (2021-2025 – see section 2.3.1, p. 57) aims to establish the Group as the **world leader in sustainable construction, which improves everyone's daily lives through its high-performance solutions** (see section 2.2, p. 56).

Based on its fundamentals (see section 1.2.2, p. 15), Saint-Gobain is transforming by disseminating a **solution-based approach**, integrating **data and digital technology,** pursuing a customer-centered **innovation approach**, at the forefront of the construction transformation, and improving its **organization**.

This search for short- and medium-term performance aims to enable the Group to respond to the expectations of its customers on the markets for **renovation of buildings**, **new and light construction**, and **decarbonization of industrial processes**. The evolution of all these sectors is crucial to meeting the challenges facing mankind. This is how Saint-Gobain is positioned to **contribute** - **in the long term, in a determined manner** - to the creation of a **low-carbon, more sustainable, safer and more engaging world** (see chapter 3, p. 70).

The **alignment** between its own business model, the interests of its stakeholders (see section 2.1.3, p. 52) and the company's global interests constitute the deep meaning of the Group's strategy and defines the unique value that Saint-Gobain brings. This is how its corporate purpose, "Making the world a better home", is materializing. In other words, the sustainable nature of the solutions offered by the Group in its three areas of development (renovation, new construction and industry) is a key growth driver for Saint-Gobain.



2.1 THE GROUP'S ENVIRONMENT

2.1.1 MAJOR CHALLENGES AND OPPORTUNITIES

Megatrends at work – climate change, scarcity of natural resources, urbanization and population growth, digitization and changes in lifestyles – will continue to shape the evolution of the world for decades. These fundamental movements represent many of the challenges that the economy and society face, to which Saint-Gobain provides tangible, immediately operational solutions, thereby offering huge growth potential for the Group.

These major trends create a world that is also constrained by a range of crises: geopolitical and regional, as well as global through the disorganization of supply chains, the increase in energy costs and its effects on the depletion of commodities, and rising interest rates. These crises make the economic, political and social context more volatile; they focus on the interdependence of all these phenomena, and on the urgency for society as a whole to provide solutions to the challenges it faces. For Saint-Gobain, the aim is to equip ourselves with all the agility necessary in order to be able to adapt at all times to a constantly changing environment and to be able to provide the appropriate answers for each of these challenges:

- On climate change, propose solutions for decarbonization of the construction and industrial sectors;
- Regarding the depletion of natural resources, reduce the collection of raw materials and accelerate towards a circular economy;
- In terms of continuous urbanization, provide solutions for building renovation, light construction and mobility;
- Regarding digitization, accelerate data innovation, collection and use;
- Finally, regarding changing lifestyles, offer solutions adapted to new uses, new expectations and their long-term evolution.

A – Climate change

The imminent environmental threat lies in climate change and its consequences on economic, social, environmental and geopolitical balances. The only answer to this threat is decarbonization of the economy as a whole, through a drastic reduction in greenhouse gas (GHG) emissions for all of the world's economies. This involves correcting an ongoing trend of increasing GHG emissions; an encouraging sign is that this increase is slowing [(1)]. In the context of the sixth IPCC assessment cycle [(2)], the Paris Agreement targets, signed in 2015, remain the priority: to keep temperature rise below 2°C – and, if possible, 1.5°C – compared to the pre-industrial era.

In the starkest terms, this means reducing global CO_2 emissions (estimated at 40.2 billion tonnes in 2022) by an average of 1.4 billion tonnes each year by 2050, according to the Global Carbon Project [(3)]. Each year, on the basis of the latest scientific work, the United Nations Environment Program (UNEP) Emissions Gap Report compares the gap between these commitments and the reduction required to meet the objective. Its 13th and latest edition, published at the end of 2022, entitled The Closing Window [(4)], indicates that the international community is not aligned with the target, the current trend leading to an increase of 2.8°C at the end of the century, while the commitments made to date will only be able to reduce this increase to a level of 2.4 to 2.8°C. Only a rapid and profound transformation of the global economic system can deliver the huge reductions in GHG emissions needed, i.e., a 30% reduction by 2030 to meet the 2°C target, in order to avoid climate disaster [(5)].

Among the sectors mentioned in the UNEP report, the construction sector is essential because it, alone, accounts for nearly 40% of the world's annual CO_2 emissions, two thirds of which are related to the operation of buildings (operational emissions related to heating, air conditioning, and sanitary hot water) while one third is related to the production of materials, their transport and to construction machinery, i.e., the embedded carbon [(6)]. The development of the construction sector is therefore central to the response to climate change, both in terms of new construction and for existing buildings, since it is estimated that nearly half of the current stock will still exist and will continue to emit carbon in 2050 [(7)]. Decarbonization necessarily involves massive renovation plans, particularly in developed countries, in order to improve the energy efficiency of buildings and the replacement of fossil fuels for heating and refrigeration with renewable energies.

(1) *The Economist, November 2022. https://www.economist.com/graphic-detail/2022/11/14/a-rare-reason-for-optimism-about-climate-change.*
(2) *Intergovernmental Panel on Climate Change, established in 1988 at the request of the G7, to provide detailed assessments of the state of scientific, technical and socio-economic knowledge on climate change, its causes, potential impacts and parade strategies. The IPCC is under the patronage of the United Nations Environment Program (UNEP).*
(3) *Le Monde, November 2022. https://www.lemonde.fr/climat/article/2022/11/11/les-emissions-mondiales-de-co2-restent-a-des-niveaux-record-cette-annee_6149409_1652612.html.*
(4) *https://www.unep.org/resources/emissions-gap-report-2022.*
(5) *Idem, p. XV.*
(6) *UNEP, Global Alliance for Buildings and Construction – 2022 Global Status Report for Buildings and Construction – https://globalabc.org/our-work/tracking-progress-global-status-report.*
(7) *International Energy Agency - Energy Technology Perspectives 2020, p. 8.*

The solution to climate change therefore combines the general public, governments (through regulation, taxation and investment), and companies, which have an essential role to play in minimizing their carbon footprint and maximizing their positive contribution to change. Saint-Gobain, which formalized its support for the Business Ambition for 1.5°C initiative supported by the United Nations Global Compact (for more on the partnership with the Global Compact, see in particular section 4.2.3, p. 150), committed to reducing its CO_2 emissions by 33% (in absolute terms) between 2017 and 2030. The Group has also set its target as contributing to carbon neutrality by 2050 (see section 3.3.1.B.b, p. 104).

Saint-Gobain, through its unique position in the value chain, helps to **meet the decarbonization challenge** by an offer to its industrial customers and the construction of solutions that actively contribute to this objective (see section 3.3.2.C, p. 107), in particular by improving the energy efficiency of buildings and therefore the avoidance of emissions through light construction techniques (see section 2.3.5, p. 64).

The Group also aligns its portfolio of activities with this objective; the acquisitions of Chryso in 2021 and GCP Applied Technologies in 2022 make Saint-Gobain a **world leader in construction chemicals**, with applied specialties, in particular decarbonizing new construction, as a **new additive technology allowing Saint-Gobain customers to produce low-carbon cement.**

In the field of High Performance Solutions, the Group's offerings enable its industrial customers to move towards more energy-efficient energy, a key approach to preserving their profitability and reducing their greenhouse gas emissions. The "Surface Solutions" Business Unit offers solutions that, for example, allow aluminum manufacturers to avoid up to 17% of their CO_2 emissions, and the wood industry a 54% reduction. In this area, co-development is key, and is reflected in Saint-Gobain's contribution to the economy by enabling the industry to make progress towards decarbonization.

Lastly, the Group is committed to reducing the impact of its own operations in terms of GHG emissions, particularly by continuing to improve the efficiency of its processes and through innovations such as the "low carbon" glass production pilot project completed successfully in France in 2022. In the Czech Republic, the electrification of glass fiber furnaces will ultimately reduce CO_2 emissions by 20%, i.e., 50,000 tonnes per year. The Group also doubled the share of low-carbon electricity in its energy mix between 2020 and 2021, now at nearly 40%. Saint-Gobain is continuing its path to contributing to carbon neutrality **by deploying increasingly advanced systems to measure and monitor GHG emissions** across its entire value chain. All of the Group's activities are concerned, including in distribution; in Norway, Dahl Optimera has moved to the complete electrification of its vehicle fleet, in order to achieve clean transport. Finally, Saint-Gobain also plays, more broadly, a key role by helping to mobilize the entire building value chain towards a common decarbonization goal.

B – Environment and the use of natural resources

Central to the sustainability of economic models and the ability of mankind to live on the planet, **natural resources** are becoming scarce, due to consumption that has tripled in 50 years [8]; it concerns both fossil resources extracted – including hydrocarbons – and resources constantly renewed, including drinking water. The "overshoot day" [9], i.e., the date on which mankind's annual demand on nature (ecological footprint) exceeds Earth's ability to regenerate natural resources over the entire year (biocapacity), tends to arrive earlier each year; it was calculated as July 22 in 2022 [10]. **Here too, the construction sector plays a key role**, with 50% of the consumption of natural resources, as well as 12% of drinking water consumption and 40% of solid waste production [11].

Saint-Gobain meets this challenge using its construction and industry solutions. In 2022, the Group was the **first industrial manufacturer to produce and market a plasterboard designed with more than 50% recycled plaster**, and which retains the same technical and functional performance as a standard plasterboard. Another example of an application is that, through the Placo® brand, Saint-Gobain will provide nearly 100,000 m² of removable and re-usable partitions for the 2024 Olympic Games, thereby serving the goal of a construction that is more frugal in resources and takes into account long-term sobriety objectives.

In Germany, Rigips launched RiCycling, a system that reduces the use of gypsum, from extraction to dismantling, further advancing its commitment to sustainability. For the Group's industrial customers, its Valoref brand, already the European leader in refractory waste recycling, diversifies the materials handled and internationalizes its activities in North America, China and India.

All of the solutions offered by Saint-Gobain for light construction are, in general, an essential response to the increasingly low impact of the construction sector as a whole, through a reduction in resources. This is how Saint-Gobain is accelerating its transition to a circular economy, taking into account the entire life cycle of its products and solutions, in order to limit their consumption of natural resources, extend their lifespan and promote their recycling, to reduce the production of non-recycled waste (see section 3.4.1, p. 116). This commitment also concerns the improvement of the Group's own processes; unrecycled waste decreased by 24% between 2017 and 2021. In France, this is how the Aniche flat glass plant launched the "Tri Calcin" (cullet sorting) project with the aim of significantly reducing its CO_2 emissions and recycling the glass available in local reconstruction sites. In Denmark, Isover has implemented a 'virtuous' program, "Glass to Wool", which recovers and recycles old glazing to make glass wool. Saint-Gobain also reduced its water emissions by 40% in 2021 compared to 2010, with a target of 80% by 2025. The Group's distribution activities, through their territorial coverage, play an important role in advancing towards a circular economy; Saint-Gobain Distribution Bâtiment France has thus become the first private network of waste collection points for construction sites.

(8) *Krausmann Fridolin et al., 2018.*

(9) *Calculated by the NGO Global Footprint Network on the basis of data from sources such as the International Energy Agency or the "Carbon Project". The calculation methodology is explained here: https://www.overshootday.org/2021-calculation/ and here: https://www.overshootday.org/about-earth-overshoot-day.*

(10) *Worldwide Fund for Nature, https://www.wwf.fr/jour-du-depassement.*

(11) *United Nations Environment Program-Sustainable Buildings and Climate Initiatives (UNEP-SBCI): "Building Design and Construction: Forging Resource Efficiency and Sustainable Development".*

C – Demographics and urbanization

In November 2022, the world's population surpassed the symbolic threshold of eight billion people. While experts predict a slowdown and a future halt to this growth, with a peak of 10.4 billion inhabitants in the 2080s, this megatrend has serious consequences due to its spectacular pace; it took only eleven years to populate the planet with this eighth billion, between 2011 and 2022. It nevertheless covers very different realities; in developed countries, the evolution of birth has already led to a continuous aging of the population, generating specific needs for adaptation of housing, prefiguring what will happen later on across the globe. In other geographical regions, the rapid increase in the population has led to serious tensions in the building sector and the ability to provide healthy and dignified housing to all.

However, the rapidly growing global population has also been predominantly urban since 2007 [(12)], with the urbanization rate already exceeding 80% in high and middle income countries [(13)]. The urban population is expected to grow by two billion over the next 30 years. The majority of mankind now lives in cities, which account for more than 60% of energy and natural resource consumption and more than 70% of global GHG emissions. This rapid urbanization has led to the need to build many new constructions quickly (particularly in emerging countries) and therefore a demand for solutions to increase productivity, by building faster and with less labor. Urbanization is also reflected in major constraints on waste management and energy supply, as well as all infrastructures such as transport, through modernized, densified, smart networks, renovated rolling stock, offering greater comfort and energy efficiency, not to mention opening up to innovations such as the development of drones in urban environments. It also concerns collective use areas, from offices to hospitals to places dedicated to sport, commerce and entertainment. Transport and buildings are therefore at the heart of the issue of urbanization, with the challenge of transforming buildings to move towards energy sobriety and preparing for adaptation to climate change, by designing and building resilient and adaptable cities over the long term.

Saint-Gobain has a central role to play in meeting the needs of both affordable and sustainable construction, so that everyone can benefit from decent, energy-efficient housing, and contributing to a comfortable urban life, using all its solutions for renovation, new construction, and infrastructure related to water supply. Through its distribution brands, the Group also provides solutions adapted to the urban environment, through a network of local points of sale, redesigned logistics to make it more virtuous, and a capacity to recover construction waste. It also contributes to the development of new, smarter and more sustainable mobility solutions (see section 1.4.1.B.a, p. 29).

D – Digitization

Digitization is a **major trend that has reached maturity** with the general public today; 30 years after the first SMS was sent, it is estimated that, in 2022, 73% of people over 10 years old worldwide, all countries combined, have a mobile phone. It continues to significantly influence the development of all the economic and industrial sectors in which Saint-Gobain operates.

In **distribution**, the underlying trend of constant expansion of e-commerce was further accelerated by the pandemic that began in 2020 and which led, for example, to the share of e-commerce exceeding 15% of total retail sales in the United States [(14)]. Beyond the transposition of offers via digital platforms, and the attention paid to the ergonomics of websites, the challenge today is to take into account user experience in a comprehensive way and thus recreate a direct and special link between brands on the one hand and customers and end users on the other, offering a customized experience to each. This can be done by designing offers integrating associated services; by collecting and analyzing data, while respecting privacy; by taking into account all channels and points of contact (web, mobile, social networks, and points of sale). In addition to individual customers, this radical customer relations challenge deeply redefines the relationship between professionals (particularly craftsmen) with their suppliers. The evolution of technologies and uses requires brands to constantly assess trends and, if need be, integrate new systems and new features such as augmented reality, m-commerce, or voice search. Beyond the purely commercial relationship, the compartmentalization brought on by digital technology encourages product brands and distribution brands to holistically redefine the relationship with all their stakeholders, including their employees, their suppliers, and the general public.

(12) *United Nations Department of Social and Economic Affairs: "World Urbanization Prospects 2018", p. 11 – https://population.un.org/wup/Publications/Files/WUP2018-Highlights.pdf.*
(13) *United Nations Department of Social and Economic Affairs, "World Urbanization Prospects 2018", p. 8 – https://population.un.org/wup/Publications/Files/WUP2018-Highlights.pdf.*
(14) *https://www.census.gov/retail/mrts/www/data/pdf/ec_current.pdf.*

In **industry**, digital systems continue to revolutionize processes and methods of organization and production. Widespread measurement, real-time data capture and control systems, automation, augmented operators, and the interconnection of industrial systems give rise to an ever-increasing volume of data and the ability to analyze it. After the arrival of computers and robots in factories (contributing, through their positive impact in terms of ergonomics, to improving the health and well-being of employees), this fourth industrial revolution enables progress in multiple areas: increased productivity (through the reduction of inventories, breakdowns, waste of time and material); greater agility by improving the flexibility of production processes; the new possibility of customizing production; and also minimizing of the environmental footprint of production, through the reduction of waste production, the optimization of logistics flows, the optimization of energy and raw material consumption, and therefore reduction of GHG emissions.

In **construction**, digitization is transforming the entire **construction** and **renovation** value chain. Upstream, it is the actual design (of buildings) that increasingly relies on digital models, or Building Information Modeling (BIM), offering an integrated vision of the building during all stages of its life cycle through a "digital twin"; on construction sites, 3D scanning and photogrammetry provide new knowledge of reality. As for construction itself, digital technology enables new operating methods such as off-site construction (prefabrication or modular construction), as well as 3D printing. Downstream, wireless monitoring, the interconnection of systems and home automation contribute to increasing the comfort of the home, to optimizing energy consumption of buildings, and to improving their safety. In transport infrastructures and high-rise buildings, the collection of real-time mass data also enables precise monitoring of the behavior of structures over the long term, predictive analysis and, ultimately, optimization of maintenance and better accident prevention, contributing to better management of the built stock throughout its life cycle.

For Saint-Gobain, digitization is a source of progress and improvement in performance, as well as a system for decarbonization of its industrial processes. This is a fundamental issue that affects all of the Group's activities and has major impacts on customer relations, recruitment and training, the innovation process, market positioning and industrial processes themselves (see section 2.3.3, p. 58), and on social and environmental responsibility.

E – Changing lifestyles

In Western countries, individuals spend an average of 90% of their time indoors [15], and the widespread use of remote working is redefining expectations for residential buildings, felling the structural trend of increasing the housing renovation market linked to energy sobriety targets. The entire **attitude to work** is being called into question, thanks partly to the digitization of work systems, but also because of the increase in geographical mobility, societal changes such as changes in family structures and the arrival of new generations on the labor market, or workers' demands for a better work-life balance. In terms of uses of buildings, stronger expectations on very concrete subjects related to health, comfort – in terms of noise, temperature, light, aesthetics, air quality – and the inhabitability of living spaces are added to these concerns. For example, 65% of exposure to outdoor air pollution is estimated to occur inside; the elimination of indoor pollutants from homes themselves – including volatile organic compounds – contributes to this same requirement.

All the megatrends affecting living places require **more modular and scalable buildings**, in order to facilitate the change of use of buildings and thus more easily switch from office to residential use, and vice versa, and also their ability to adapt to changing expectations, such as needs related to home care for the elderly.

Changes in lifestyles also have significant impacts on mobility. Globalization and an increase in the global standard of living have the effect of increasing people's mobility. The demand for decarbonization and the increasing density of residential centers are also leading to changes in public transport networks, which are being improved and made more efficient and environmentally friendly. With regard to individual vehicles, the transition is now fully underway towards models that emit fewer GHG, are more energy efficient and are cleaner, more comfortable, and able to interact in real time with other vehicles and with the entire environment (see section 2.1.2, p. 50). Beyond this technological revolution, we are witnessing a change to the symbolism of the car in the minds of consumers, and as a result a growing preference for use rather than possession. This underlying trend, which is part of a wider social movement, has very serious impacts in terms of vehicle design.

For Saint-Gobain, changes in lifestyles are both an incentive to closely monitor changes in customer expectations, and an important lever for transforming industry, construction and distribution in order to make them more virtuous and to provide ever more comfortable living conditions. In India, the Asepta ceiling slabs produced by Saint-Gobain Gyproc eliminate microbes and help equip spaces for a healthy environment. In the Netherlands, new schools built using solutions offered by the Group make it possible to better care for children with high-performance acoustics, brightness, optimum air quality and irreproachable thermal comfort.

In general, **the solutions offered by Saint-Gobain to design new, more energy-efficient and more enjoyable buildings to be used, to renovate the entire existing shell, and to deploy more efficient and environmentally friendly means of transport are among the essential solutions** to these new expectations.

[15] *Survey conducted by YouGov between April 15 and May 1, 2019 with a population of 16,853 adults in 14 European countries (Austria, Belgium, Canada, Czechia, Denmark, France, Italy, Germany, the Netherlands, Poland, Slovakia, Spain, Switzerland, the United Kingdom) as well as the United States.*

2.1.2 TRENDS IN THE GROUP'S VARIOUS MARKETS

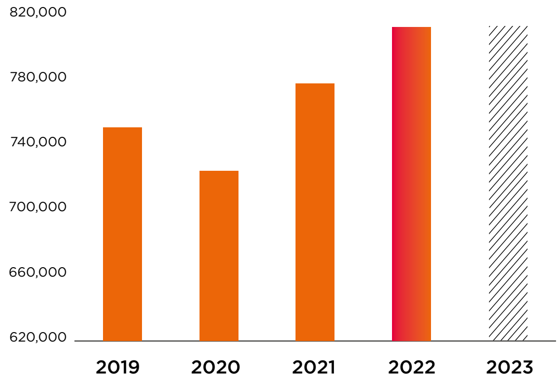
Saint-Gobain is driven by the acceleration of the markets in which the Group operates, and where it seizes growth opportunities. This dynamic is at work in all geographical areas and on global markets [16]. Despite a cyclical slowdown characterized by an inflationary environment – with its consequences on energy and material prices – and by the rise in interest rates – with its consequences on household confidence –, the major trends around the world are materializing in structural market changes that are favorable to the Group's development.

In Western European markets, the continued increase in the volume of the renovation market is in response to regulatory changes, at community level with the "Fit for 55" package. With an aging portfolio of buildings, the subject of energy is central; renovation is made imperative due to the objectives of reducing the European Union's strategic dependence and combating energy insecurity. The new construction sector is subject to stricter standards in order to deliver better results, particularly in terms of energy sobriety, and must respond to housing shortages. In North America, the construction market is characterized by an acceleration in light construction practices, while the pre-existing shortage has led to increasing demand for new housing. In emerging markets, robust population growth and continued urbanization have given way to light construction. Finally, on the global markets, the demand to combat climate change creates a very strong growth horizon for technologies and solutions to decarbonize industry, particularly the construction industry.

A – Renovation and building envelope

In mature markets, the evolution of the construction market is determined by major trends such as the increase in the ownership rate, or even the aging, of the population, which lead to increased need for renovation. It is also a market where the energy efficiency imperative is essential. The existing (and dense) housing stock is also aging; however, this is a sector where decarbonization technologies are developed and allow extremely significant gains in terms of avoiding GHG emissions, especially in a context of rising energy prices. The renovation sector is particularly promising for growth in Europe, where it accounted for over €800 billion per year in 2022 [17]. The figures accompanied by forecasts published as part of the Euroconstruct report (covering an area including Germany, Austria, Belgium, Denmark, Spain, Finland, France, Hungary, Ireland, Italy, the Netherlands, Norway, Poland, Portugal, the United Kingdom, Czechia, Slovakia, Sweden and Switzerland) of November 2022 show a particularly robust sector.

SIZE OF THE EUROPEAN BUILDING RENOVATION MARKET (€ bn), 2019-2023 [18]



The intervention of political authorities is decisive in this market. However, renovation (nearly 50% of Saint-Gobain's sales worldwide) corresponds to three key objectives concerning public strategies and therefore the link between policy makers and the population: the commitment to contributing to carbon neutrality, energy independence, and the protection of household purchasing power. At the European level, the REPowerEU initiative has resulted in an additional €56 billion by 2027 allocated to energy efficiency. On the regulatory front, the Energy Performance of Buildings Directive (EPBD) should lead to the introduction of mandatory Minimum Energy Performance Standards (MEPS). This is a historic moment: it is estimated that 70% of residential space in Europe needs to be renovated if we want to **achieve the goal of carbon neutrality**, bearing in mind that 55% of buildings in the European Union are in the worst energy classes E, F and G (the biggest consumers of energy per square meter). However, this objective assumes that the annual buildings renovation rate will be doubled within ten years, throughout the European Union. The priorities of the "RenovationWave" plan are to limit energy poverty, renovate public buildings, and to decarbonize heating and air conditioning [19]. The European Commission's strategy is to renovate 35 million energy-inefficient buildings and create up to 160,000 additional "green" jobs [20] in an environmental, social and efficiency-related public governance project. The renovation objective does not concern only residential buildings; office space is also concerned. In France, the latter is subject by decree to a 40% reduction in energy consumption before 2030, 50% by 2040 and 60% before 2050 for any surface area greater than 1,000 m².

(16) *Source: Oxford Economics – Saint-Gobain, Capital Markets Day, October 2021.*
(17) *Rapport Euroconstruct, November 2022. The scope is that of the 19 countries studied by the report.*
(18) *Idem, op. cit. (in billions of euros at 2021 prices). Figures for 2023 are estimates, and those for subsequent years are forecasts.*
(19) *European Commission, Directorate-General for Economic and Financial Affairs – https://ec.europa.eu/commission/presscorner/detail/en/fs_20_1844*
(20) *European Commission, Directorate-General for Economic and Financial Affairs – https://ec.europa.eu/commission/presscorner/detail/en/IP_20_1835*

EXPECTED BENEFITS OF ENERGY RENOVATION

Renovation support and incentive plans are an essential tool for meeting the main objectives. **Maximum application of the EPBD directive would thus deliver very significant results**, both on the percentage of buildings not renovated, on GHG emissions by buildings (by contributing to half of the necessary decarbonization efforts by 2030), and on their energy consumption [21]:

3 to 5%
Share of non-renovated buildings
(percentage of the total surface) by 2050, depending on the region in Europe, as compared to 47% to 65% in 2020.

-57%
Evolution of GHG emissions
for heating, cooling and domestic hot water in Europe by 2050.

-36%
Evolution of energy consuption
for heating, cooling and domestic hot water in Europe by 2050.

In the Member States, **there has been an acceleration in public investment plans to support energy renovation**: in Poland, the plan is budgeted at €3.5 billion per year, corresponding to the renovation of 250,000 housing units; in Italy, the government extended and increased the amount of aid granted via the "superbonus"; in Spain, the creation of "energy saving certificates" is a complement to the "Green Deal" announcing €7 billion for renovation. In the Netherlands, in addition to the 2022-2024 plan for the insulation of buildings, there is a ban on renting out housing that achieves lower than a D-class rating by 2030, in line with a principle similar to the one adopted in France, where the "MaPrimeRénov'" state scheme is the government's commitment to a target of 700,000 renovations per year.

The sector's growth prospects are therefore supported by both investment plans and **the constant strengthening of construction and renovation standards**, particularly in developed economies. Market growth is also driven by **adapting buildings to changes of use**, and in particular the explosion of **working from home** (cf. section 2.1.1.E, p. 46), which has consequences in terms of renovation and restructuring needs for both individual housing and office buildings. Other factors have similar effects, such as the increase in ownership rate in some countries, or the aging of the population, which requires renovating homes to make them livable for longer; the latter trend is a fundamental structural trend that is already evident in developed countries, in China, and will extend to the entire planet over the long term. By 2050, one in four people living in Europe or North America could be 65 or older.

In an unstable geopolitical context, beyond the subject of climate change, crises are finally confirming that there is an **urgent need for mass renovation of existing buildings from the point of view of the protection of the least favored households and public health**. The rise in energy prices, and the difficulty it causes for heating, should thus cause, in the event of a moderate winter – comparable to the average winters of 2000-2019 – an estimated overmortality of nearly 150,000 people on the continent in the winter of 2022-2023, or even more than 180,000 in the event of lower temperatures [22]. However, even without these crises, inadequate housing has particularly serious consequences. According to the WHO, unhealthy housing causes 130,000 deaths every year in Europe, a figure that can be reduced by investing heavily in improving the living conditions of residents through renovation and insulation. In addition to statistics and human benefits, this is a sensible investment in terms of public finances; a study showed that the renovation of 600,000 unsuitable homes in France, occupied by the smallest households, would cost €6.5 billion in public money, but in the long term would lead to a reduction in healthcare costs of nearly €500 million per year.

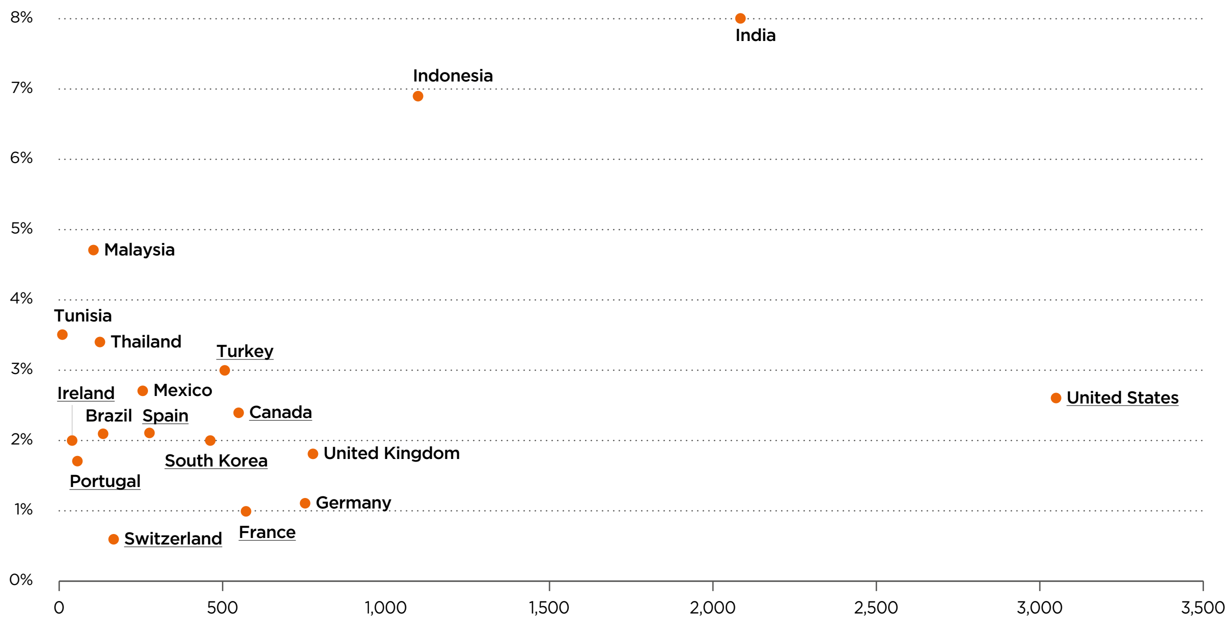
[21] *European Commission, Commission Staff Working Document/Impact Assessment Report accompanying the proposal for a Directive of the European Parliament and of the Council on the energy performance of buildings, 12/15/2021. These are estimated benefits obtained in the "High-II" maximum scenario.*

[22] *The Economist, November 2022. https://www.economist.com/interactive/graphic-detail/2022/11/26/high-fuel-prices-could-kill-more-europeans-than-fighting-in-ukraine-has*

B – New construction

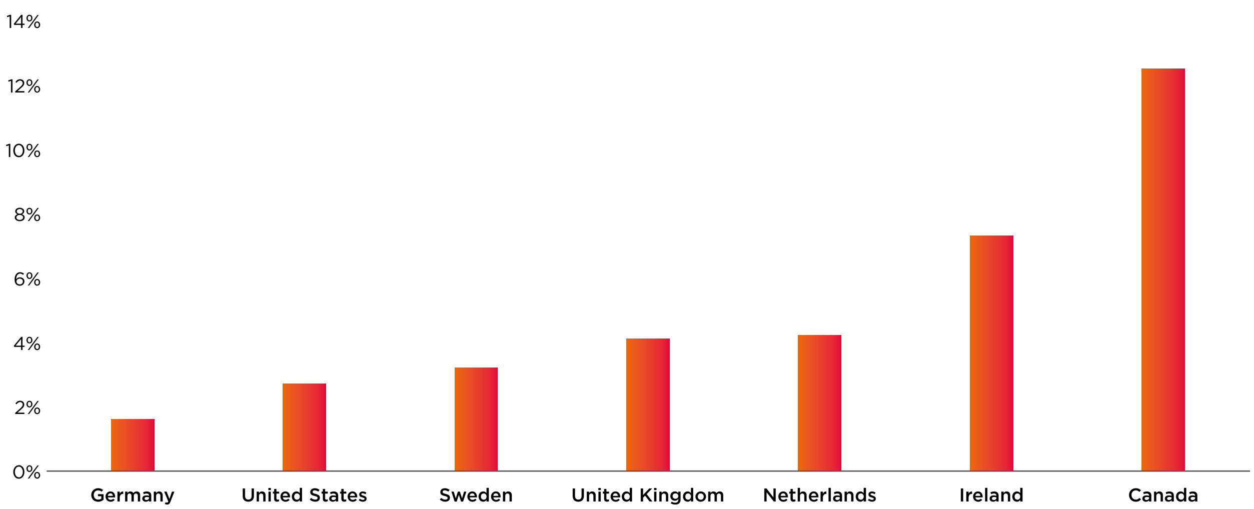
The new construction market is driven globally by structural trends such as population growth, urbanization and the need to replace buildings, with significant requirements in terms of carbon neutrality, circularity and productivity. The segment will generally remain dynamic in the coming years, with **very strong growth in emerging economies**, where volume growth is expected to range from 5% to 8% between 2022 and 2030 in countries such as India, the Philippines, Vietnam, Indonesia, Angola and Pakistan [23].

2022-2030 CONSTRUCTION MARKET SIZE AND FORECAST GROWTH [24]



In **developed countries**, the short term will be characterized by cyclical constraints such as the economic slowdown and rising interest rates, but market developments remain determined in the medium to long term by structural housing shortages.

HOUSING SHORTAGES IN SOME DEVELOPED COUNTRIES [25]



[23] *Oxford Economics, 2022.*

[24] *Oxford Economics, op. cit. Growth is indicated in terms of mean annual growth rate and market volume is indicated in billions of US dollars at 2015 prices. Underlined names refer to countries where Saint-Gobain made significant acquisitions or investments in 2022 (see section 1.3.1).*

[25] *Freddie Mae (US), Scotia Bank (Canada), HousingEurope.eu (European countries).*

It should be noted that new construction is subject to **regulatory constraints** that tend to strengthen regularly, in order to **accelerate the development of the sector and respond to the ecological challenges and those around energy transition**. In France, for example, the RE2020 system demonstrates the shift from thermal regulation (which began in 1974) to more ambitious and demanding environmental regulations for all market players, in order to continue to improve the energy performance and comfort of buildings, while reducing their carbon impact. It is structured around three main areas [26]: to continue to improve energy performance and reduce consumption by new buildings; to reduce the impact on the climate of new buildings by taking all their emissions into account over their life cycle, from construction to end-of-life (construction materials, equipment), through the operating phase (heating, sanitary hot water, air conditioning, lighting, etc.), through a life cycle analysis; and finally, to allow occupants to live in a living and working space adapted to future climate conditions by pursuing the objective of comfort in the summer. In particular, buildings will have to be more resilient to heat waves, which will be more frequent and intense due to climate change.

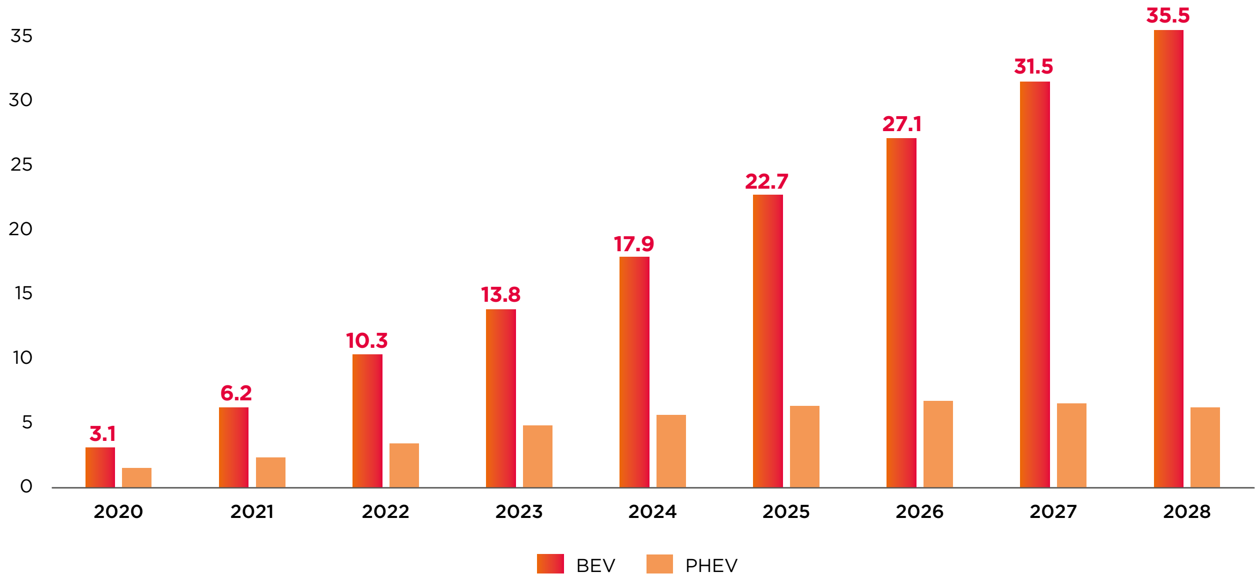
All of these constraints require strong mobilization from all players in the sector in order to carry out a real transformation, particularly thanks to the development and marketing of new technological solutions for the entire sector, particularly "low-carbon" concrete. Furthermore, traditional construction methods are challenged by the rapid emergence of **light construction techniques** (see section 2.3.5, p. 64) which offer **significant performance benefits** in terms of raw material consumption (up to 50% reduction), and therefore **decarbonization**. These techniques also save time (up to 20% of the constructive on-site process) and therefore **productivity** (building with fewer human resources), particularly in rapid urbanization situations. They also bring benefits in terms of **well-being**, thanks to improved thermal, acoustic and visual comfort. The penetration of this construction method is high because it responds to challenges both in developed countries (pressure on natural resources, search for productivity and lack of labor for professionals, expectations of modularity and environmental responsibility on the part of end users) and in emerging countries (benefits in terms of speed of construction, housing needs created by population growth). Its growth will therefore exceed that of the construction sector as a whole, offering particularly significant sources of value.

C – Industry

Sustainable mobility

Overall, after the contraction seen in 2020, and despite cyclical constraints such as the increase in the average price of vehicles, interest rates and the prices of basic materials (particularly metals), the automotive market is starting to grow again and will continue to grow in the short to medium term. Its global volume is estimated at 90 million units in 2025, i.e., a return to 2019 levels, and growth rates between 3% and 5% between 2023 and 2025. In the case of China, 2022 volume has already exceeded the pre-Covid-19 crisis level [27]. **The electric vehicle market, in which Saint-Gobain holds leading positions, will drive most of this growth, with extremely strong growth forecasts**, driven in particular by changes in standards, widespread constraints imposed by cities, and the continuation of government subsidy programs.

GLOBAL EV SALES AND FORECAST, 2020-2028 [28]



[26] *Ministries for the Ecological Transition, Regional Cohesion and Energy Transition – https://www.ecologie.gouv.fr/reglementation-environnementale-re2020.*
[27] *IHS, Markit Automotive, LVP+AP Forecast, December 2022.*
[28] *IHS, Markit Automotive, op. cit. Figures in millions of vehicles. BEV: Battery Electric Vehicles. PHEV: Plug-in Hybrid Electric Vehicles.*

The electrification of the vehicle fleet has begun a **radical acceleration** – which will mainly concern fully electric vehicles, unlike plug-in hybrids – including the European Commission's announcement of a ban on the sale of new thermal cars for 2035. All car manufacturers have since positioned themselves in relation to this deadline, by announcing their own roadmap for the electrification of their range. The "Fit for 55" strategy published by the Commission also stipulates changes in the taxation of fuels and the deployment of charging infrastructure for vehicles. It is indeed an **explosion in the electric vehicle market** that, in Europe and around the world, is mainly due to public regulation and subsidies; in China, the continuation of tax rebates in 2023 represents a public spending of nearly $15 billion [29]. However, this development has significant consequences on the sector's value chain, for example by making technologies that enable progress in terms of vehicle weight, thermal and acoustic insulation of the passenger compartment, engine insulation and connectivity even more necessary.

With regard to public transport, the growth and increasing density of urban areas, and the increasingly strict regulations adopted at the local level on pollution automatically lead to a growing demand for transport solutions that are effective in energy terms, connected, easier to maintain, and that offer users a higher level of safety and comfort. In particular, this means putting lighter, and therefore less fuel-consuming and less GHG-emitting, fleets into service. In maritime transport, decarbonization also involves the deployment of technologies that save weight, for example for cruise ships, and thus significantly reduce fuel consumption.

In 2022, the aviation sector, which has suffered an historic drop in activity volume due to the Covid-19 pandemic, already returned to a level equivalent to 85% of that of the pre-crisis operations in Europe, and is expected to catch up as early as 2025 [30], a trend that covers different situations between types of companies (i.e., historical or low cost) and geographical areas (Asia lagging behind in 2022 due to the persistence of restrictive measures to combat Covid-19). The global development of this sector is responding to a strong structural trend of increasing demand for both business flights, tourism and affinity travel. However, this remains a promising market with very strong medium- and long-term growth, with negligible impact from the crisis on the need for new aircraft by 2040, estimated at more than 43,000 aircraft, doubling the global fleet of commercial aircraft [31].

Other industries

Global industrial production is expected **to grow by 2.6% per annum over the decade 2022-2030** [32]. In this positive context, **all segments of this business sector** are gradually moving towards **decarbonization of their operations in general and their industrial processes in particular**, which requires massive financial investments.

Some of the segments in which Saint-Gobain is positioned should experience faster growth, for example, the health sector. Thus, the transition of **the glass industry** (which emits more than 80 million tonnes of CO_2 per year) to carbon neutrality at global level, involves both the use of new energies and significant needs in terms of innovative refractory solutions for glass furnaces. The constant expansion of **renewable energies**, which is essential for achieving the decarbonization objectives of the economy in general and heavy industry in particular, generates strong structural growth needs for flat glass and specialty glass (in the case of solar energy) and glass fiber (in the case of wind energy). The expected development of hydrogen leads to a growth in the market for advanced solutions such as technical zircon powders used to manufacture the high-temperature electrolyzers required in this industrial process. Another example is that in the **the steel industry**, the use of low-carbon technologies – such as grinding wheels for rolling mills –are among the solutions for manufacturers to move towards lower energy consumption and greenhouse gas emissions. Steelmakers, as well as aluminum manufacturers, are also in demand for refractory solutions involved in the design of new low-carbon furnaces. Finally, the growth of industries using refractory and ceramic materials generates, mechanically, greater needs in terms of the collection and recycling of these materials.

(29) *Idem.*

(30) *Business volume estimates (in terms of the number of IFR movements) in Europe (44 countries) compared to 2019, depending on the baseline scenario. Eurocontrol Stratfor, 7 year Forecast, June 2022.*

(31) *Les Echos, "Boeing estimates the aerospace market at $9 trillion over ten years", https://www.lesechos.fr/industrie-services/air-defense/boeing-estime-le-marche-de-laeronautique-a-9000-milliards-de-dollars-sur-dix-ans-1345993*

(32) *Oxford Economics, December 2022.*

2.1.3 THE GROUP'S STAKEHOLDERS

For many years, Saint-Gobain has incorporated the challenges of sustainable development into its strategy, practices and business model (see section 1.2.3, p. 20). The Group is convinced that consideration of the common good, ethics and social and societal issues is an essential factor in generating sustainable growth.

In 2020, the Group unveiled its corporate purpose: "Making the world a better home". The manifesto associated with this corporate purpose clearly states the involvement of stakeholders and the desire to act with them.

A – Managing relations with stakeholders

For Saint-Gobain, the interests of all of its stakeholders must be taken into account when defining its strategy. First of all, this involves building a dialog, and also ensuring that this dialog is transparent and based on mutual trust. Factors such as the size of the Group, its global dimension and the variety of its business lines mean that dialog must, above all, be organized in a decentralized manner, with each operational entity being responsible for conducting it within its own scope.

Saint-Gobain has mapped its ecosystem, identifying and grouping its stakeholders by category (see illustration below). For each category, a Group function responsible for organizing the reporting of information on its expectations – at local or global level – and producing a summary of them, has been designated as the point of contact. The preferred methods of dialog were also listed.

Stakeholder categories	Main stakeholders	Steering (partners)	Methods of communication	Examples of interaction in 2022	
				At local level	**At global level**
Market	• Customers, including: – Craftsmen – Specifiers – Ordering parties – End users • Suppliers	Marketing (sales teams, purchasing, etc.)	• Continuous meetings; • Publications and magazines, company websites, forums and trade fairs; • Publication of training manuals on energy efficiency and the environment; charter of recommendations promoting the insulation of existing buildings; participation in associations or groups; • Training for customers and end-users; • Suppliers charter, action plans to follow up on the Responsible Purchasing policy; • Test markets, business studies, focus groups, etc.	In Denmark, Saint-Gobain Distribution brands have developed their digital offering to improve the customer experience and better meet their expectations. A new innovative voice search system has improved and personalized the relevance of customer results. A digital ecosystem was created on the Dahl brand app in order to better identify each customer and their expectations better, and to facilitate their order.	PIM (or Product Information Management) is centralized information management software whose aim is to ensure consistent, multi-channel distribution of product data. By connecting information from different sources (ERP, Purchasing, Marketing, etc.), PIM manages and validates the regular updates from the various stakeholders, thus ensuring the consistency and reliability of the information that is then sent to customers via different channels (catalog, mobile applications, websites, etc.).

Stakeholder categories	Main stakeholders	Steering (partners)	Methods of communication	Examples of interaction in 2022	
Civil society	• NGOs • Foundations • Associations • Universities • Online media (social networks, blogs, etc.)	CSR (HR teams, communi-cation, marketing, etc.)	• Group publications • Meetings • Participation in university training courses • Forums in schools • Support for youth development	**At local level** In 2022, the Saint-Gobain Foundation supported the installation of solar panels to supply four disadvantaged schools in Lebanon and thus make the working environment more conducive to education while reducing their electricity bills. In total, this project will benefit more than 2,900 people within this community in Lebanon.	**At global level** The international final of the 17th Architecture Student Contest organized by Saint-Gobain brought together more than 1,500 students from 220 universities in 39 different countries. This year, the challenge was to build a sustainable architecture project focused on revitalizing an area of Warsaw. Contestants had to design a 14,500 m^2 multi-purpose center in an old plant and to integrate student housing. The first three awards rewarded teams from Finland, Latvia and Poland.
Local communities	• Local governments (elected officials, administrations, etc.) • Opinion leaders • Neighbors of Group sites (private or public companies, individuals, etc.) • Traditional media	Country organization	• Meetings held on the initiative of sites or country organizations • Solidarity initiatives • Regular meetings with elected officials and representatives from local administrations • Experimental work in the regions in partnership with the public entities and elected officials	**At local level** With its new health policy published in 2022, Saint-Gobain is committed to supporting local communities as closely as possible. The Group assures local residents that sites close to their homes must not be a source of nuisance and, beyond that, must make a positive contribution to their daily lives.	**At global level** In 2022 Saint-Gobain launched Build Change, a new sponsorship and sponsorship policy to inspire and accelerate the transition to more sustainable construction. This policy aims to support integration projects in the regions in which the Group operates, while strengthening its position as the world leader in sustainable construction, as well as the reputation and visibility of its brand, its commitments and its values.
Employees	• Employees • Temporary staff/ temporary workers • Employee representatives • Work/study students • Interns • Secondary and professional education	Human Resources	• Permanent contacts • Internal communication material • Meetings with Group managers • Bodies representing employees • Intranet • Website • Global or subject-specific surveys	**At local level** Saint-Gobain Brazil has built its "Viva Bem" program to support its employees towards a more harmonious and balanced life. The program is structured around proposals for access to care, training on budget management, and events for mental health assistance. This program has already paid off: 83% of respondents reported experiencing better balance in their lives.	**At global level** In 2022, for the fourth consecutive year, Saint-Gobain surveyed its employees for its satisfaction survey on me@Saint-Gobain. Again this year, the results are improving: inter alia, the commitment index reached 84% (+1% vs 2021) and the recommendation rate is 86% (+1% vs 2021). These results testify to the high level of employee satisfaction worldwide.

Stakeholder categories	Main stakeholders	Steering (partners)	Methods of communication	Examples of interaction in 2022	
Investors	• Shareholders including employees • Institutional investors • Individuals • SRI (Socially Responsible Investment) • Rating and ranking agencies	Financial communi-cation (CSR, governance teams, etc.)	• Group publications (brochures, etc.) • Website • Letters to shareholders • Shareholder guide • Public declarations • Meetings with investors • Meetings with individual shareholders	**At local level** The 35th version of the Group Savings Plan (PEG) carried out in 2022 was once again a great success, with a historical subscription rate. Employees in 53 countries can subscribe to the PEG, which represents 96.9% of the Group's total headcount. Each country develops its own offer locally to enable its employees to become shareholders.	**At global level** In 2022, Saint-Gobain published its first ESG Information Pack. This downloadable document is primarily intended for investors and is intended to consolidate and communicate information concerning the environment, social and governance issues.
Regulatory Authorities and public affairs partners	• Governments • Regulators • Inter-governmental entities • International organizations (UN, ILO, etc.) • Inter-professional associations • Green Building Councils	Sustainable development	• Public affairs • Participation in working groups, in most cases led by inter-professional associations, on various construction method-related technical issues, such as assessment of building performance. • Green Building Councils	**At local level** Saint-Gobain is a member of 40 local Green Building Councils (GBCs). The Group is also a partner of the European GBC (ERN) Network and serves as Vice-President of the World Green Building Council (WGBC).	**At global level** In its effort to limit climate change and its consequences for communities around the world, Saint-Gobain took part in the COP27 held in Glasgow, and interacted with many organizations in order to raise everyone's awareness and encourage new decision-making.

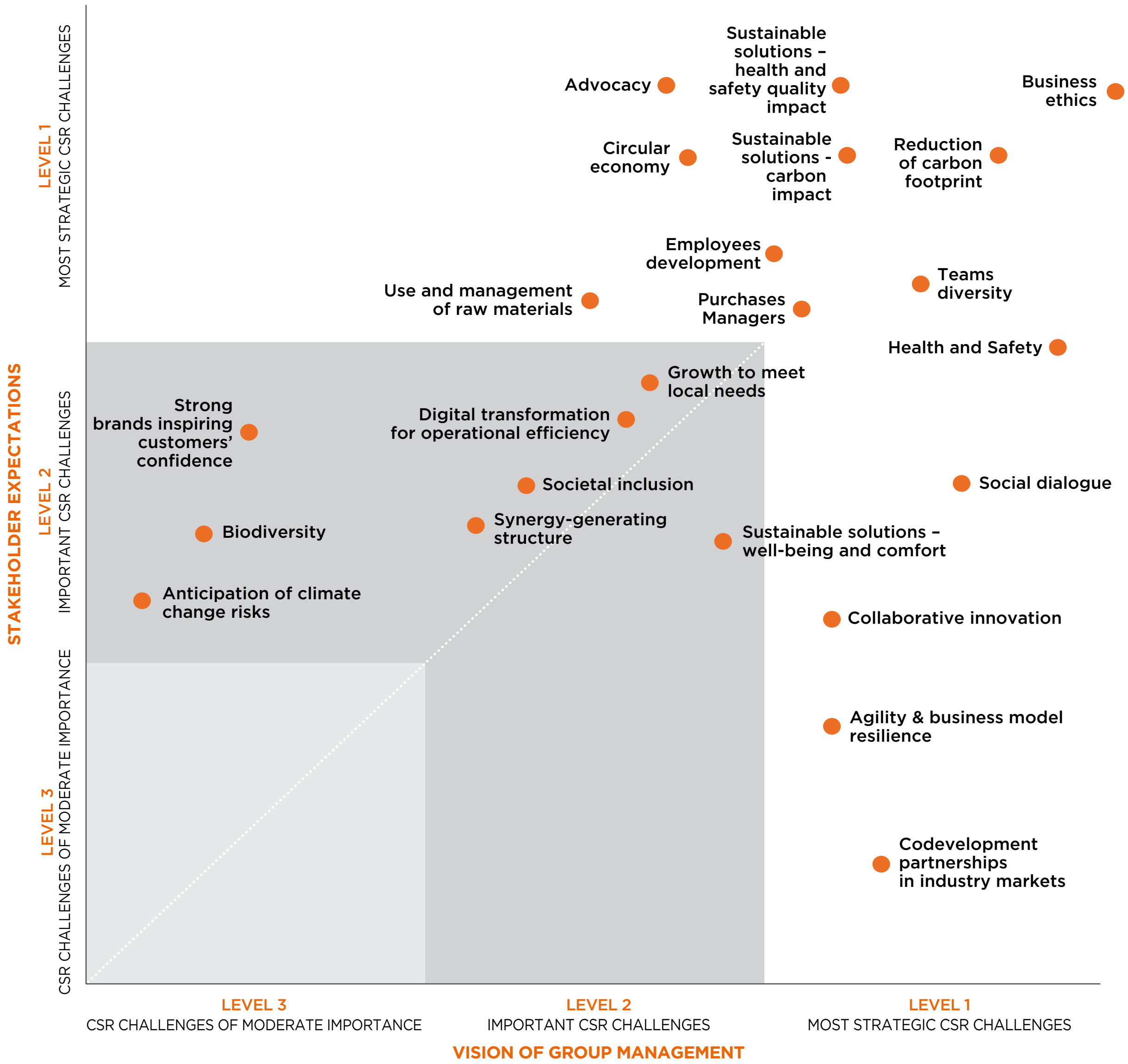
B – Structuring and prioritizing the issues: materiality analysis

In reporting terms, materiality relates to the extent to which measures have a significant impact on an organization and its ability to create financial and non-financial value, for itself and its stakeholders. Based on a mapping of its stakeholders, Saint-Gobain identified priority issues and carried out a materiality matrix, i.e., a graphic representation of the importance of these issues, based on the expectations of stakeholders and the vision of the Group's management teams.

The materiality matrix published by Saint-Gobain was reviewed in 2020 with the help of Mazars. The following methodological principles have been adopted:

- Identify priority issues, based on the documentation available on the Group, its activities and its environment;
- Share these issues with its main stakeholders;
- Prioritize these issues by comparing stakeholder expectations against management's vision.

A methodology note is available on the Group website. The assessment is based on information gathered during interviews with experts, customer surveys, employee surveys, minutes of meetings with various stakeholders, and internal interviews. For example, interviews with external stakeholders conducted in the context of the Group's corporate purpose or the "me@Saint-Gobain" survey conducted among Group employees were included in the analysis, as were the Group's transformations as part of the "Transform & Grow" program in 2019-2020.



C – Assessment of the main non-financial risks and opportunities

In accordance with French legal and regulatory provisions (articles L. 225-102-1, R. 225-105 and R. 225-105-1 of the French Commercial Code), Saint-Gobain conducted a survey of the risks and opportunities linked to Corporate Social Responsibility (CSR). The materiality analysis contributed to the identification of the main CSR risks and opportunities for the Group. Details of the methodology used are provided in the Declaration of Non-Financial Performance (see section 9.3.3, p. 385).

To perform this analysis, Saint-Gobain used:

- The CSR materiality analysis;
- The risk identification methodology used by the Internal Control Department, which has been adapted to address long-term non-financial issues.

Nine [33] long-term non-financial risks and opportunities have been identified:

- Diversity;
- Energy efficiency and carbon intensity of operations;
- Business ethics;
- Management of skills and talents;
- Responsible supply chain management;
- Integration of recycled materials into products;
- Energy and carbon performance of products and services;
- Occupational health and safety;
- Product safety.

Details of the risks and opportunities, the policies and action plans, as well as the measurement of the Group's performance are detailed in the Declaration of Non-Financial Performance (see section 9.3.3, p. 385).

[33] *Risks and opportunities are published in alphabetical order in French, without prejudging their relative importance for the Group or its stakeholders.*

2.2 THE VISION

Saint-Gobain wants to be **the worldwide leader in light and sustainable construction, which improves everyone's daily life with its high-performance solutions**. The Group aims to continue its growth and become leader in most of its markets, by outperforming its competitors. This ambition implies, through its values, actions and commitments, **transforming the market and guiding change, becoming a reference for all its stakeholders**: its employees, its professional customers in the construction and industrial sectors, its end consumers, regulators, and local communities, the media and citizens. Being a leader also means being a pioneer and paving the way for others, constantly innovating with and for the entire ecosystem in which Saint-Gobain operates.

The Group's value proposition is reflected in the marketing of alternative solutions to traditional construction, by means of constructive modes and lighter products, which are both more sustainable and more efficient, **maximizing its environmentally friendly impact** on the entire value chain (for example, by reducing GHG emissions over the entire life cycle of its solutions, by making it easier to modify, deconstruct or reassign buildings, by enabling gains on all types of comfort, or by increasing the productivity of the Group's customers and all professionals), while **minimizing the footprint** of Saint-Gobain's operations (particularly by reducing CO_2 emissions in logistics flows and industrial processes, as well as the decrease in the consumption of non-renewable natural resources and waste production).

Saint-Gobain's continued growth is achieved through the "Grow & Impact" strategic plan announced at the end of 2021 (see below, section 2.3). It is based on solid fundamentals: while it is one of the oldest companies of European origin, with more than three centuries of existence (see section 1.2.1, p. 14), the Group has also been able to transform rapidly and profoundly in recent years. This is how Saint-Gobain has developed one-third of its business portfolio by making around 100 acquisitions and nearly 70 disposals in recent years. This development also assumes a disciplined financial approach (see section 2.3.7, p. 68). This is primarily reflected in dynamic management within its scope, through value-creating acquisitions and targeted disposals of underperforming businesses. The Group made major acquisitions in 2021 and 2022, such as those of Chryso and GCP, to establish itself as a worldwide leader in the fast-growing – and essential for decarbonization of the industry – construction chemicals segment. Saint-Gobain has also made strategic investments for the future in order to increase its production capacity and upgrade its systems. Under this plan, Saint-Gobain has set **ambitious targets for the 2021-2025 period** [34] organic growth of between 3% and 5%; an operating margin of between 9% and 11%; and a return on invested capital between 12% and 15%. The Group also aims to align its geographical profile with the growth regions of its markets, with the aim of balancing its presence between Western Europe (55% of its sales), North America (20%) and emerging countries (25%). In terms of markets, Saint-Gobain's objective is to maintain its balance between 20% of sales from the global business lines and 80% for the Group's local customers.

[34] *Assuming the absence of a major economic crisis.*

2.3 THE STRATEGIC APPROACH

2.3.1 A STRATEGIC PLAN: GROW & IMPACT

Saint-Gobain has set up a “Grow & Impact” plan to achieve its medium- and long-term objectives by accelerating its operational priorities: a solution-based approach, the use of data, the pursuit of customer-centric innovation, transformation of the value chain and development of a performance-oriented organization. In this context, the word “Grow” refers to the Group’s determination to pursue its growth by designing, producing and distributing innovative, efficient and sustainable solutions. The word “Impact” refers to the responsibility of having a positive impact on everyone’s lives while ensuring personal and collective well-being. This strategic plan, adopted for a period of four years, is therefore just the beginning; it is a transformation lever to enable Saint-Gobain to make a significant contribution to meeting the global challenges of decarbonization, circularity and the search for a better living for all (see chapter 3, p. 70).

As part of the “Grow & Impact” plan, Saint-Gobain has identified clear medium-term objectives: leverage the opportunities offered by the **evolution of the renovation market in Europe**, drawing on its very dense coverage and its leading position as a solution provider, develop its role in the **lightweight construction** market (see section 2.3.5, p. 64), particularly in North America and emerging countries, through its portfolio of solutions for residential and commercial buildings; capitalizing on its technological lead and innovation potential to **provide to its industrial customers** (particularly in the construction and mobility sectors) **solutions to make progress in the field of sustainable development**, on the decarbonization, circularity, and well-being fronts.

In 2021, the first year of the plan was already characterized by **historical performance**, with organic revenue growth of +18% compared to 2020 and nearly 14% compared to 2019. Saint-Gobain had thus delivered remarkable performance on particularly promising underlying markets over the long term. This success can also be seen from an environmental and societal point of view, with carbon emissions still falling in 2021 (-27% vs 2017 on scope 1 and 2 emissions), in line with the 2030 target of -33% vs 2017 and the goal of contributing to carbon neutrality by 2050.

For the entire period covered by the “Grow & Impact” plan, the Group is continuing its transformation in a methodical and disciplined manner in order to serve its strategic priorities: accelerate its growth to exceed that of its markets; strengthen its leading role in contributing to building a “low-carbon” economy; strengthening the Group’s profile as part of a dynamic of targeted acquisitions and divestments that create value; maintain a very good level of margin, with a constant focus on the differential between prices and costs; continuing strong free cash flow generation; continuing its operational excellence program; maintaining structural improvement in its working capital requirement while maintaining good inventory levels; and, finally, stepping up its industrial investments.

2.3.2 A SOLUTIONS-BASED APPROACH

The combination of a global presence and an extensive offering allows Saint-Gobain to offer market participants a solution-based approach combining several products and services. Beyond the traditional approach of best meeting a specific need with a dedicated product, the objective is to **support clients dealing with complex issues by offering them sustainability and performance benefits, or contribution to sustainable development**. In Poland, for example, the Group launched a comprehensive catalog of partition solutions and building elements using of five branded Saint-Gobain products: Ecophon, Glassolutions, Isover, Rigips and Weber. Designed for architects and contractors, it is also intended for all persons involved in the construction process (individual investors, appraisers, etc.) as it provides practical and reliable information on all technical parameters, facilitates the collection of documentation required for the project, and describes Saint-Gobain’s solutions.

The Group’s organization by country and market enables it to be as close as possible to its customers, anticipate their expectations and offer them the appropriate solutions. **By combining its skills, inventing and offering new services, implementing its full potential for innovation, and strengthening synergies between its business lines, Saint-Gobain offers integrated solutions** that better meet its customers’ expectations. This approach, which represents a major differentiating factor for Saint-Gobain, is implemented in several areas.

This is firstly **developing cross-selling**, in particular through vertical market solutions, with joint sales forces mastering a whole portfolio of brands, with training services for professional customers and end consumers, or even with specialized sales channels. Many of the teams in the 75 countries where Saint-Gobain operates have pooled their sales forces and adjusted their sales conditions to sell solutions from several construction brands to the same customers. This is the case, for example, in Brazil, where four brands have been grouped within joint sales teams, allowing them to approach all types of decision-maker together, from the requirement writer to distribution. This approach makes it possible, in concrete terms, to meet all customer expectations by combining additional Saint-Gobain materials for the same project. In the case of the construction or renovation of a school, the Group can therefore make use of all solutions in terms of thermal, acoustic and visual comfort by providing solutions for partitions, floors, ceilings and glazing. In this case, the architect’s work is greatly facilitated, and the Group exploits the full range of its know-how while increasing the volume of its sales. Another illustration of this principle is that, in the case of the shipbuilding market, the “Saint-Gobain Marine” Business Unit offers the opportunity to find all the Group’s solutions that meet the demanding needs of this sector, all in the same place, from fire protection to acoustic performance, and weight, fuel consumption (and therefore CO_2 emission) reduction. With this unique organization, customers benefit from full support and optimal contact with each of the brands. In the mobility field, Sekurit Services, a specialist in replacement automotive glazing, and Saint-Gobain Surface Solutions have combined their sales approach in order to offer customers a more comprehensive range of solutions.

This involves **offering systems**, i.e., a combination of products and services, which guarantee a given technical performance and often combine benefits in terms of sustainable development and productivity. This approach corresponds to a growing demand from customers because it brings benefits in terms of efficiency and speed; because it responds to a growing shortage of skilled labor; and because it responds to an increasing demand for system-wide performance and not a product or material. It is also a strong differentiating factor for Saint-Gobain.

This approach includes prefabrication, light façades, partition systems, building science, High Performance Solutions, and connected glazing solutions. The same product, offered as part of a system, can itself result from the combination of several products owing to collaboration between the various Group entities. For example, there is the case of GlasrocX, a solution proposed by Rigips, which combines an Adfors non-woven sail with a Gyproc board and offers benefits of protection against moisture both inside and outside. This solution is complemented by the application of mortars developed by Weber. Also worthy of mention are the Duo-Tech (France) and SilentFx (United States) special acoustic plasterboard solutions, consisting of two plasterboards bonded with the special Greenglue adhesive, which improves the acoustics of the solution while remaining flexible, avoiding the creation of an acoustic bridge and ensuring perfect bonding.

In many countries, the external technical insulation system (ITE or ETICS), offered by Weber, combines Weber coatings, Isover insulating materials and the Adfors grid to build a certified system. In the Middle East and Spain, Saint-Gobain recently launched a new light façade system consisting of GX plasterboards combined with Isover insulating materials, which are complemented by the application of Weber plasters. This creates new technology façades with a traditional rendering that respects the aesthetics of the environment but offers the qualities of resistance to local climatic conditions. Another example, through the Optimax solution, which results from the combination of a Habito board with a fastening accessory and good mechanical glass wool, Placo®-Isover offers a fast and convenient system in terms of installation in France while guaranteeing the same performance.

This solution-based approach consists finally of offering services, and thus ever more options to the Group's customers across the entire value chain. This is notably the case in the field of shared logistics and kitting services, intermediation platforms, after-sales services, automated warehouses, recycling services and digital solutions. In Finland, for example, distributors can combine solutions from the three Weber, Isover and Gyproc brands as part of the same delivery, which facilitates their inventory management while improving the level of service to their own customers.

By means of this approach, Saint-Gobain improves its competitive edge by offering integrated offers for a wide range of situations, from the renovation of single-family homes, hospitals, schools, and collective housing, to the construction of new offices and collective and individual housing, green mobility and the decarbonization of industry.

2.3.3 LEVERAGING DATA AND DIGITAL TECHNOLOGIES

Accelerate digital technology, leverage the data revolution

Digital technology has already transformed all of the business sectors in which Saint-Gobain operates (see section 2.1.2, p. 47). The Group approaches this subject as a lever for progress and performance improvement, and also as a cross-functional challenge, which concerns both its internal operations (industrial processes, management, employee engagement), its relations with its suppliers, its customers and other stakeholders, as well as its social and environmental responsibility.

Data, the fuel of the 21st century, is becoming increasingly important in Saint-Gobain's model. It has become an essential lever in all its dimensions; owing to the **collection of an increasing volume of data**, the commissioning of **new algorithms** and the deployment of **new technologies**, it is now possible to obtain a much more precise knowledge of the real situation, and thus prevent, predict and model scenarios, all of which help decision-making in all business sectors.

Industry

Digital technology has totally transformed factory organization: machines are connected in real time and data analysis allows for better control of production processes, more rapid resolution of any technical issues and, more generally, an increase in operational efficiency. Digital technology also helps **customize** deliverables further along the value chain and opens up further opportunities for co-development. Plant engineers use the data to better understand the complex dynamics of manufacturing chains, which helps to better control industrial processes and thus improve efficiency, deploy predictive maintenance approaches, as well as reduce variability, defects, waste, energy and raw material consumption, and greenhouse gas production. This is **an essential level for progress in achieving the Group's decarbonization** (see section 3.3, p. 100) **and circularity** (see section 3.4, p. 115) objectives. This fourth industrial revolution, or "**Industry 4.0**", is also based on **advanced automation and robotization of industrial tasks**. Within the Group, thousands of robots and automatic trolleys perform repetitive tasks in complete safety. Operators are connected and are assisted by the use of augmented reality, which is particularly effective for maintenance or troubleshooting. With production units where software and machine tools interact directly with each other, **a number of applications have been made possible**, such as the real-time monitoring of production, automated alert systems, predictive maintenance and product quality optimization, by reducing both costs and the quantity of resources and energy employed. As an example, the "Construction Industry" Business Unit uses software based on artificial intelligence to optimize the operation of its fiberglass furnaces. Reducing the cost of data storage and the price of sensors has contributed to the **introduction of tools to assess and monitor production in real time**, such as edge computing solutions, based on a nano-computer equipped with open-source artificial intelligence software for key systems. This approach, launched, for example, in the abrasives manufacturing plants in India, constitutes a first step towards the development of multi-factory global artificial intelligence solutions, using data storage and enrichment. In total, more than 60% of Saint-Gobain's main industrial sites are already connected to the Group's digital manufacturing hub, thus creating a digital production ecosystem.

Digital technology and data are also used to **protect the health and safety** of operators working on the Group's industrial sites. Within the "Surface Solutions" Business Unit, an application based on data collection enables users to minimize their daily exposure to vibrations, thus preserving their health and safety, while increasing productivity.

Customer relations

Beyond the optimization of industrial processes and logistics, data is the key to Saint-Gobain's transformation into a solution provider, (see section 2.3.2, p. 57) thanks to the in-depth knowledge of customers provided by the multiple points of contact between them and the Group throughout the value chain, and the mass of data they generate.

In the retail sector, Saint-Gobain's digital platforms enable rapid digitization of interactions with customers. The deployment of advanced data analysis systems based on artificial intelligence enables a better understanding of the customer and therefore a greater proximity to them, as well as an increase in sales and profit margin.

New innovations are constantly supporting the consolidation of relations with business customers; at CEDEO, this means, for example, the establishment of "click & collect" lockers to simplify the lives of craftsmen, who sometimes have to go to work outside their branch's opening hours. They can place an order online and retrieve it in lockers at any time, day or night. At Point.P, the roll-out of digital systems for professionals allows them to be ever more efficient and to continue to develop their skills, always in line with the sector's developments. Configurators, simulators, software, etc. – the brand offers a wide range of digital systems: Solu+, Cap Renov+, Tolteck and the "Objectif RGE" application, which prepares craftsmen for the RGE certification examination ("Recognized Environmental Guarantor").

Relations with suppliers

Digital technology is also changing the way we interact with suppliers. Digitization of supplier processes requires centralization of the Purchasing Department and the automation of traditional tasks, notably through electronic auctions using new online tools. Campaigns to monitor suppliers' e-reputation have also been undertaken, with significant outcomes, to identify potential problems and promote a responsible purchasing policy.

3D, a driver of acceleration and performance

3D continues to grow across all Saint-Gobain Business Units: it is now deployed on more than four continents, in the glass business as well as those dedicated to mobility, insulation, roofing and façades. The unique ability offered by three-dimensional visualization to model the properties and structure of the most complex materials, combined with data science to boost the marketing and product development approach, allows for a faster time to market. In particular, it has enabled the development of more than 50 new products in the roofing business in North America. In all stages of construction or renovation projects, the digital model, or Building Information Modeling (BIM), which offers an integrated vision of the building during all stages of its life cycle through a "digital twin", modifies the very design of buildings, and allows custom parts to be cut in the factory, with customized deliveries on site. This technological revolution paves the way for an increase in the Group's sales; it maximizes Saint-Gobain's contribution to the productivity of its business customers, with savings of up to 30% in terms of installation time, and also offers considerable room for improvement when it comes to minimizing their environmental footprint, with savings of up to 20% of waste produced during the installation phase, moving towards zero waste.

Structure the organization, recruit employees, attract talent

In 2022, the Group's "Digital and Information Systems" function continued its development in order to continue to move towards a project-oriented and business-oriented approach. Rather than a traditional approach based on infrastructure, this is about directing the Group's efforts and resources to support all teams on the ground, in an agile way, to enable them to make the most of Saint-Gobain's organization, which gives priority to local resources, while deploying the strength of a global organization.

To disseminate the data-related approach successfully, it is essential to allow all of its employees to embrace this technological revolution; for this reason, the DnA Academy, launched in 2019 in three countries (Poland, France and Spain) to accelerate the transition to a data culture in the industry, is now expanding to other activities. Today, several thousand people within the Group have participated in awareness training, and several hundred of them have pursued this approach by training in programming and machine learning. The DnA Academy continues to develop and adapt to needs, particularly for the supply chain, marketing and all management professions, as well as for engineers and data specialists.

This global approach is complemented locally by DnA Hubs, which bring together data science specialists, local IT managers, and managers to identify and propose promising use cases. In general, the Group deploys its technologies step by step, convinced that early, inexpensive advances can quickly be a source of progress; this involves deploying agile approaches through the testing of local solutions in proof of concept mode, some of which will then be repeated in order to be rolled out to larger scopes. In India, the DnA Garage extracts the value through advanced analysis of the data collected through all of the Group's local activities, from internal and external sources. The meeting of data specialists, engineers, translators – experts linked to business priorities – and application developers helps identify use cases, design models, develop pilots, and support projects that focus on customer knowledge, marketing analysis and operational efficiency.

In addition, Saint-Gobain is reinventing its methods by adding a growing number of talents in software engineering and data expertise. These include data analysts and data engineers, who build data pools to store, clean and test them.

Data for sustainability

Data collection and analysis are also an essential lever to enable Saint-Gobain to achieve its development and transformation objectives in terms of GHG emissions and circularity of the economy. The Placo® factory in Chambéry (France) rolled out a data collection and analysis project, which optimized manufacturing processes to minimize the consumption of raw materials and the quantity of non-compliant products, thereby increasing energy sobriety and improving its economic and environmental balance sheet. The general collection of data and its processing using algorithms are essential for monitoring the progress made towards decarbonization, and in particular the quantified CO_2 reduction targets assigned to each Group plant. In plasterboard production plants, the deployment of sensors and a detailed analysis of real-time data have enabled the precise management of gas combustion using an algorithm that adapts the intensity of the dryers. In order to achieve the ambitious objectives of decarbonization and preservation of raw materials faced by the construction sector, this data-based approach must be considered across the entire value chain, taking into account production and logistics – notably by using digital modeling tools – and more generally throughout the entire life cycle of the solutions that the Group provides to the markets.

2.3.4 A CLIENT-CENTRIC KIND OF INNOVATION PROCESS

A – Putting the customer at the heart of innovation

The environment in which Saint-Gobain operates is a rapidly changing world, subject to fundamental trends on a global scale (see section 2.1.1, p. 43), massively digitized (see section 2.1.1.D, p. 45), and where there are very high expectations in terms of energy sobriety, the fight against climate change and limiting the use of natural resources, as well as productivity to deal with a growing shortage of labor specialized in construction and renovation. In a complex model such as Saint-Gobain (see section 3.1.1, p. 72) the methodologies applied to innovation must necessarily evolve. It is only by means of its technological and environmental innovation capacity that Saint-Gobain is the leader in sustainable construction. In essence, innovation is a non-linear process, which requires time to ask the right questions before converging towards solutions. It presents itself in three essential facets: knowledge of the customer's needs, scalability, and value creation.

Cultivating proximity with the Group's customers

The collective approach to innovation applies both internally and more broadly, including Saint-Gobain's stakeholders outside the organization, primarily among its customers. This approach to innovation, geared to the outside of the organization, leads to open and cross-functional methods, involving all of the Group's teams. The main objective is to better understand the specific expectations of customers in each of the Group's markets, in order to identify use cases and situations where Saint-Gobain will bring value, reduce time to market and optimize return on investment. For **architects and engineers**, this means technical support, ease of collaboration, and ease of testing new products and solutions; for **craftsmen and building contractors**, this involves the supply of products and materials, access to distribution sites, ease of installation, advice on installation, and project management support; for **developers**, this is the total cost of ownership, on-time delivery, and advice to help anticipate changes in standards; for **owners and occupants** of buildings, this concerns in particular the multiple dimensions of comfort, customization, maintenance costs and property prices. In addition to the diversity of business sectors, **the diversity of situations and expectations in each geographical region** must also be taken into account. For tropical or semi-tropical areas, X-terium plasterboards, an innovation by Saint-Gobain Plaka, with their high resistance to moisture – avoiding, for example, the development of fungi or algae – allow the creation of external partitions. This is why Saint-Gobain's eight cross-functional R&D centers are deployed all over the world (France, Germany, the United States, China, India, Brazil), as close as possible to local situations.

If customer knowledge is acquired in particular by managing the customer relationship, collecting and analyzing data (see in this chapter, section 2.3.3, p. 58), **innovation seen through the prism of co-development** is carried out through a full range of tools and initiatives: deployment of training and methodologies, investments in test benches, development of real or virtual prototyping resources to accelerate customer validation, and creation of specific locations. "Design thinking" approaches and user experience in the development of new products, systems and services are also deployed in the various R&D centers. For the Group's industrial customers, Saint-Gobain's High Performance Solutions are particularly concerned by this approach.

The Group's distribution activities (see section 1.4.2.B.g, p. 32) are also a valuable tool for developing a more detailed knowledge of the market needs, owing to the proximity with the customers that they make possible.

Multiply approaches

As a result, the R&D teams are able to run scenarios for the use of different prototypes and to evaluate, modify and propose solutions that meet the expectations of customers in the mobility or construction industry markets. The determined response that Saint-Gobain has given to the consequences of the pandemic has proven that this priority given to customer relationship can be satisfactorily and productively maintained through digital initiatives such as virtual tours, real-time and remote brainstorming, or virtual and augmented reality. Finally, teams of building science specialists, present in the various R&D centers around the world, are working to improve comfort continuously for end users and the ease of installation for craftsmen, as well as to reduce total cost of ownership for building owners. In Germany, the Rigips and Isover Development Center team (Ladenburg) has put this approach into practice by involving customers in the creative process, from reflection to the creation of prototypes. With its "Smart Gypsum" showroom, Rigips has developed a unique initiative: to generate innovation and creativity in the same place and to develop solutions that meet the real needs of customers and their practical requirements. Specialists in smart homes have been added around professionals from construction companies or manufacturers of prefabricated houses. Meetings and focus groups gathered concerns, expectations and their vision for construction over the next 5 to 10 years.

B – Place innovation at the heart of all the solutions provided by Saint-Gobain

Since it was founded, the Group has consistently placed research and innovation at the heart of its strategy. Nearly 400 patents are filed every year by Saint-Gobain. Saint-Gobain's efforts focus on research-based innovation, particularly in terms of products and manufacturing processes, but they also apply to other fields, such as innovation in business models and in services. They are guided by several priority areas:

For the **construction markets**, innovation includes advanced technologies such as prefabrication and robotization. Construction solutions via three-dimensional printing minimize the use of materials, facilitate more advanced customization possibilities, and promote an 80% faster construction process. Composite exterior thermal insulation systems, installed on lightweight façade frames, combine within the Group the expertise of the construction trades and those of High Performance Solutions. They allow the amount of CO_2 to be divided between two and four compared to concrete wall solutions, and represent a weight saving of 85% compared to traditional walls, with the corresponding gains in terms of speed and safety during installation. In the area of glazing, the iWin solution launched in 2022 by Saint-Gobain Glass brings big data into the stream, transforming each insulated glass element into a traceable resource throughout its life cycle, before, during and after its use, from installation to recycling. Innovation is evident in all areas of construction with, for example, Saint-Gobain Building Glass having developed Miralite Easysafe safety mirrors, manufactured in one step through a process combining paint, silver and anti-chip resin. By integrating a new "hemp concrete" activity into its range of solutions, Weber has enhanced its strategic offering of "eco-committed" products and services. Another example of innovation that promotes greater respect for the environment and the transition to the circular economy is the Group's workshops in Switzerland, which provide solutions that combine Isover glass wools with wooden constructions for construction sites throughout Europe. Still in the construction field, Placo® has marketed a modular solution of self-porting and adjustable structures for all types of needs, the Placo® Cube system, which meets the ever-increasing expectations of the market in terms of privacy, acoustic comfort and storage of construction materials. Saint-Gobain is fully committed to the digital transformation of construction, as evidenced by the three Manufacturing Leadership Awards received in 2022 by CertainTeed and Saint-Gobain Research North America. These awards reward industrial companies for their innovations in digital transformation. In distribution, innovation is reflected in the design of integrated services for craftsmen or contracting authorities and project managers on construction or renovation projects.

For **mobility**, innovation helps improve vehicle comfort (noise, vibration, aerodynamics, thermal comfort, etc.), reduces the overall weight of the vehicle, and enables the development of new features and uses in terms of safety, information and entertainment. Lightened glazing thus increases the range of electric vehicles and improves energy efficiency. In India, Vistadome trains are equipped with Saint-Gobain Glass solutions that provide brightness, thermal insulation and soundproofing. Innovation is present across the transport market, for example, with Solar Gard, the global leader in glass and protective films, developing a range of antimicrobial products with unparalleled clarity. In space, the solutions offered by Omniseal are essential for the smooth running of spacecraft launch operations, both for carriers and onboard satellites.

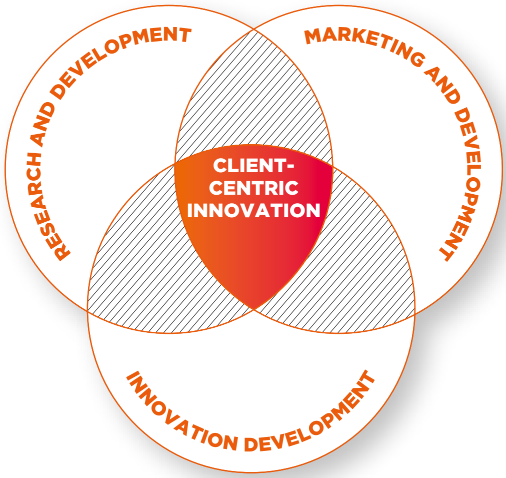
In the **industry**, the goal is to innovate to enable Saint-Gobain customers to decarbonize their processes.

C – Encourage creative thinking, adapt methods

Innovation is one of the five “Attitudes”, the pillars of Saint-Gobain’s management culture. This implies a deliberately collective approach. Innovation is always born from a team, different people coming together, chance and serendipity; it presupposes a gathering of forces, different points of view. It also benefits from failures, which enable progress on the condition that their teams keep the right state of mind. Being open-minded and thinking outside the box, taking original paths, questioning practices inherited from the past to suggest and experiment with new ones: these are some of the skills exploited by all Saint-Gobain’s employees.

In terms of operational management, this assumes that Saint-Gobain adapts its organization and methods in order to create conditions for creativity, encourage empathy with customers to spread co-development, give its space to divergent thinking, spread agile methods, tolerate failure – hence the “Grow from failure” training program available on the Boost platform – as well as to promote open innovation. Among the initiatives put in place, the Group has rolled out Innovation Catalysts, committed employees, trained in the mindset, methodology and innovation tools, having developed specific skills to put them into practice effectively, and who support their colleagues in the implementation of their innovation projects, both internally and externally.

The reorganization of Saint-Gobain enables the innovation process to move away from a silo approach, freeing up strong synergies across the Group. In 2022, the Group completely reviewed the organization of innovation, notably by tightening the links between R&D, marketing and the new “Innovation Development” Department.



More generally, it involves providing all employees with information and tools to innovate, thereby developing new skills, and acquiring, mastering and disseminating appropriate methodologies internally. The central objective is to **foster an innovative mindset**. It is about cultivating curiosity and empathy with customers and the courage to challenge achievements and assumptions. The aim is also to build diverse teams, which are in a position to seek solutions, design prototypes and judge the applicability and viability of the solutions conceived, at all times. Initially developed for the High Performance Solutions (HPS) scope, the Saint-Gobain Innovation Hub exchange, mutual assistance and resources platform is gradually expanding to offer the entire Group the necessary training and tools to bring innovation projects to a successful conclusion.

D – Approaching innovation in ecosystem mode: open innovation and co-innovation

To complement its in-house capabilities, Saint-Gobain has been deploying its innovative approach through exchanges and partnerships around the world with its customers and suppliers, with an ecosystem of start-ups and via scientific collaborations and partnerships with the academic world.

Scientific and academic cooperation

The SUN international network of universities is the **framework for long-term academic collaboration** that provides access to the most recent scientific advances in the fields of interest to the Group and to a rich pool of young talents. More specifically, this leads to the establishment of partnerships with various institutions in the data science and artificial intelligence fields. For example, the German Textile and Fiber Research Institutes and Saint-Gobain’s “Céramiques” Business Unit have signed an agreement to jointly develop solutions in the field of metal oxide ceramic fibers. It is therefore expected that ceramic fiber, already widely used in the industry to protect itself from high temperatures, is to be improved in the coming years.

Open innovation and cooperation with start-ups

Through NOVA, a unique structure created in 2006, Saint-Gobain plays an active role within the global start-up ecosystem. NOVA aims to enable disruptive innovation by identifying opportunities for long-term partnerships and turning these into a reality. It also favors the development of new ideas and business models.

Identify adequate projects

In order to select the most relevant projects aligned with the Group's strategy, in a win-win approach for both parties, NOVA balances activities across a three-dimensional matrix based on transversal target areas – aligned with Saint-Gobain's "Grow & Impact" strategic plan and its long term growth objectives –, the engagement of internal business unit teams, and geographic coverage.

In terms of target fields of activity, NOVA takes into account the most important topics for the entire Group, such as the **productivity of the construction businesses**, buildings that are both durable and fostering better health, the **digital client experience**, **electrification of transportation**, industrial **energy transition**, the **circular economy** and high performance solutions. This approach takes into account aspects related to digitization and the contribution to sustainable development. It also provides targeted support to Saint-Gobain teams working on industrial markets such as mobility – in particular on autonomous vehicles – and life sciences.

Examples include:

- AMT (United Kingdom), a start-up implementing post-processing of 3D printed polymer components;
- Fibrecoat (Germany), developing new fiber-based products for the aerospace industry;
- Hyperframe (USA), proposing a metal framing system for the construction of commercial buildings;
- LivSpace (India), specializing in the optimization of office spaces;
- Mobility Work (France), developing a community-based maintenance management platform;
- OMNEX (Belgium), producer of expanded glass panels for new buildings, renovations and conversions;
- Spectralics (Israel), which develops optics and imaging technologies based on wave control to enhance automotive head-up displays;
- Treble (Iceland), a sound simulation platform with unprecedented levels of speed and accuracy enabling real-time audiovisual VR experiences of building designs;
- Tri'n'Collect (France), offering recycling services for construction waste.

Identifying opportunities through multiple sources

Initiating relationships with startups takes place in many different ways: via VC investors, incubators, accelerators, as well as through NOVA's involvement in key events (ranging from the Climatetech Summit in the United States to the Africarena Startup Challenge" in South Africa and the CSRtech Summit in China). Internal stakeholders also play an increasingly significant role, showcasing a shift in Saint-Gobain's corporate culture: more often than not, the NOVA team is nowadays introduced to start-ups by local business teams, as was the case in Iceland with Treble.

Deploy a variety of collaboration models

Nova works with Saint-Gobain teams to set up **strategic co-development partnerships**, **distribution or marketing agreements**, or even licensing agreements. Since the end of 2016, NOVA has extended its expertise to the **acquisition of financial stakes in start-ups**. The latter can take several forms: initial investment; follow-up investment in a company in which NOVA already has a holding; and investing via a specialist fund rather than directly. The total investment value of NOVA in start-ups to date amounts to around USD 100 million (at fair market value price). NOVA concentrates on the initial stages in the life of start-ups; Hyperframe, a start-up which has developed a metal framing system for commercial buildings construction, was only a two-person company when the relationship with Saint-Gobain was launched via an acceleration program with Greentown Labs, a Massachusetts-based climatetech community and incubator that brings together startups, corporates, investors, politicians, and others.

Development: a dynamic of growth

The progressive ramp-up of NOVA's operations has allowed to build an impressive funnel which led to 1,000 projects being screened in 2022, more than 300 reaching the stage of "active deals", and around 50 projects (including new direct investments, follow-on investments, new fund investments, and joint development/commercial agreements) closed during the year, after due diligence and final negotiation.

Investing through dedicated funds

NOVA is also a limited partner in three investment funds targeted for the Group's business lines and geographical regions: Navitas Capital for construction and Phoenix Venture Partners (PVP) for material sciences, both in the United States, and Environmental Technologies Fund (ETF) in Europe, focusing on sustainable development. NOVA has also invested in a new venture fund in China, Richland Capital, with a focus on high-performance solutions.

Partnering with incubators

To support its approach, Saint-Gobain has partnered with several incubators through NOVA. These include:

- Greentown Labs in the United States, specializing in green technologies, which opened a second site in Texas in 2021;
- Impulse Labs in France, which specializes in the incubation of construction startups;
- Cubo in Brazil, a specialist in digitization;
- Digihub Germany, local hub in Aachen for startups with digital solutions;
- Polyhub in Italy, incubator of Politecnico di Milano, a renowned school in Italy;
- Tus-Holdings in China, a company that develops, builds, and manages TusPark, the largest university science park in the world;
- Also in China, the Impact Hub Innovation Center in Shanghai.

Investing in innovation: a testimony to Saint-Gobain's trust in a more open world

Whatever the form of collaboration with startups, Saint-Gobain's philosophy is based on three values: an approach that benefits all stakeholders, a passion for learning and researching new ideas, and an open and flexible approach to relationships. NOVA also acts as a **portal to the outside world**, helping to connect internal teams with new ways of working and with innovation produced outside the Group.

E – Leveraging innovation to improve environmental performance

Through the dissemination of eco-innovation practices (i.e., the design of solutions with minimized impacts and optimized benefits for the environment and health), innovation is also ultimately emerging as an essential way of achieving Saint-Gobain's objectives in the **sustainable development** field on all measurement scopes: on the Group's operations, as well as on the upstream and downstream parts of the value chain. Resulting from innovation in construction chemistry, new adhesive mortars offered by Saint-Gobain enable, for example, a 46% reduction in CO_2 emissions, a 28% reduction in water consumption, and a 25% reduction in use of raw materials compared to comparable products; still in construction, the Adfors and Chryso entities offer decarbonization solutions to global players in the sector. This approach applies to all of the Group's activities and industrial processes: the first "low carbon" plasterboard plant will be operational in Norway in 2023, a tangible demonstration of the commitment made by Saint-Gobain to reduce its CO_2 emissions (scopes 1 and 2) by 33% by 2030 compared to 2017, with a focus on contributing to carbon neutrality by 2050. For its industrial customers, Sefpro and Norton offer specialty materials for decarbonizing manufacturing processes. In the field of mobility, brands such as Sekurit and Norseal are marketing solutions that improve the energy efficiency of electric vehicles.

Innovations such as Placo® Recycling, for example, enable the Group's professional customers to access a network of 180 approved collectors who recover sorted plaster waste from construction sites in order to be able to prepare them to become a secondary material, recovered by reintroduction into the manufacturing process of new boards. Tens of thousands of tonnes of plaster are recycled each year, accelerating the transition to a circular economy across the entire construction value chain.

In France, Isover has launched a new biosourced insulation made of recycled textiles: Isocoton, a high-performance biosourced insulating material, made from locally recycled textiles, soft to touch, easy to fit. This solution, which contributes to a more circular economy, provides the Group's clients with an alternative to traditional solutions for interior insulation of buildings.

2.3.5 LEADING TRANSFORMATION IN THE CONSTRUCTION INDUSTRY

Unlike a traditional construction whose massive walls (bricks, cement, etc.) carry the weight of the building, **light** construction consists of constructing a skeleton – made of wood, metal, concrete or a combination of these materials – on which light façade systems and internal partitions are connected. This type of construction, carried out on site or prefabricated – partially or totally – **reduces the environmental impact** of construction and **optimizes the consumption of resources** while ensuring **superior performance**. While it is traditional in certain markets, such as individual housing in the United States and Scandinavian countries, **this approach is intended to develop very rapidly throughout the world** due to the decisive advantages it brings, particularly in terms of speed of construction. This concerns emerging countries, where dynamic demographics generate strong demand for new housing, as well as a series of developed countries, which are suffering from a shortage of residential premises (see section 2.1.2.B, p. 49), and those where qualified labor is in short supply, as light construction techniques have particular advantages in terms of ease of construction, transformation and dismantling. It's about building quickly, better and cheaper. In France, the RE2020 regulation, which requires measuring a building's environmental impact throughout its life, will encourage the development of light construction and recycled and recyclable materials with lower carbon intensity. Many similar initiatives in Sweden, the Netherlands, the United Kingdom, the United States, Brazil and South Africa are moving in the same direction. Wood construction, in which Saint-Gobain has strong expertise, offers significant growth prospects in many markets, in all construction segments. Engineering woods now represent a growing potential for Saint-Gobain: excellent alternatives to load-bearing walls, with laminated wood panels (CLTs) replacing those in reinforced concrete, while poles or beams in laminated and glued (commonly referred to as GlueLam) or laminated wood (LVL) replace steel. The lightness and mechanical resistance of engineering woods makes it possible to build ever higher residential towers, and can even meet certain seismic requirements. However, the very nature of the material opens the way to sustainable construction, with a low carbon footprint for wood construction. While it is a popular solution for new properties (particularly as part of RE2020), wood is also suitable for renovation, particularly for elevations or extensions. Wood construction also allows for innovative approaches; the city of Lübeck in Germany has chosen Saint-Gobain Brüggemann to build a temporary primary school with its wooden modules. The interim establishment will be moved after a few years to be used elsewhere for other purposes.

Lightweight construction solutions such as façade systems and lightweight partitions also provide significant benefits in terms of the quantity of materials consumed (-79% in the case of a residential building [35]) and greenhouse gas emissions, **thus making a crucial contribution to the objectives of construction decarbonization and orientation towards a circular economy**. Prefabrication techniques consist of manufacturing the various components of a building in a factory, including water and electricity circuits, and assembling them on site. They are a solution to the challenge of labor shortages and, with **lower production and construction costs**, they also save time by as much as 25-50% as well as **delivering of more affordable housing**, meeting both the imperatives of protecting household purchasing power in developed countries and providing decent and comfortable housing for all in emerging economies. Singapore, Australia and the UK are increasingly opting for modular buildings to deal with labor and housing shortages; the Nordic countries, such as Sweden, are already building 90% of individual prefabricated homes. In Norway, Byggsystemer, a subsidiary of the Optimera retailer and leader in its market, is surfing this wave by offering several types of prefabrication, from pre-distribution of wood to roof structures and ready-to-use items for small homes and large buildings. Among the offers developed by the Group, Glasroc X plasterboard, covered by a technical mineral pulp developed by Adfors, can be used on the façade, owing to its improved resistance to humidity and UV radiation. A new production line dedicated entirely to the manufacture of coated glass matting was opened in 2022 in the Czech Republic. In Germany, in 2021, Saint-Gobain renovated a childcare center in just three months, using custom prefabricated and pre-cut panels. In India, the combination of advanced glazing and modular construction techniques enabled the construction, in just 45 days, of the Indian Ministry of Defense's research and development center in Bangalore, a 1.3 million square meters building. In France, the Saint-Joseph Hospital chose to use Isover's F4 façades, sized and pre-decoupled in the factory; they are easy to disassemble and recycle, facilitating future expansion projects.

For Saint-Gobain, which offers a very wide range of expertise in this field, **light construction is at the heart of its contribution to a more environmentally friendly economy**.

Also at the cutting edge of the sector's transformation, **construction chemicals**, which groups together all the chemical components used to paste, join, waterproof, protect, strengthen and perfect different construction materials, both in new construction and renovation, for buildings and infrastructures (tunnels, bridges, roads, railways, dams, etc.). This sector takes a leading role as **its innovative technologies** – and its multiple applications – **reduce energy consumption, reduce the carbon footprint of cement and concrete, and promote the circular economy**. They therefore play a major role in the transition to low-carbon construction and are an essential component of the Group's strategy to be the leader in sustainable construction; this is why Saint-Gobain is strengthening its leadership and accelerating its growth in this sector, through the acquisition of Chryso in September 2021 and GCP Applied Technologies in September 2022. Construction chemicals now account for more than 270 Saint-Gobain sites, spread over 75 countries. This market is currently estimated to be worth between €80 billion and €90 billion, with annual growth significantly higher than that of the construction market in general. The Group, with a revenue of more than €4 billion and a rich portfolio of brands (including Weber, Chryso, Impac and TekBond), is clearly positioned among the world's leading players in this key segment.

2.3.6 A PERFORMANCE-ORIENTED ORGANIZATION

While it is one of the oldest companies, Saint-Gobain is also one of the fastest-changing companies in recent years. Rather than thinking in terms of obstacles and steps, it is about developing a model that can adapt continuously, in the context of a world that has become fundamentally unstable. To achieve this, the Group is committed to continuously improving its organization.

A – Developing human capital: recruiting, training and growing talent

Saint-Gobain's development depends first and foremost on **the quality and expertise of the men and women who make up the Group**. This is reflected first and foremost in **the attention paid to recruitment**, in a context of tight supply in all the functions and business lines proposed by Saint-Gobain, in production, distribution and support functions. The Group is therefore fully committed to the race to **recruit the best talents in all specialties**, including engineers, digital & data scientists, sales and marketing staff, product managers, supply chain and sustainability specialists. Beyond the recruitment process and the attention paid to its brand as an employer, it is **Saint-Gobain's collective ability to train, nurture and constantly develop these talents** that will enable it to stand out. With digital technology and refined data processing, career paths can be more easily individualized and the HR support policy customized (see section 3.2.3, p. 94). As for managers, the "SG Talents" program aims to identify those who have significant evolution potential or key skills. This attention to individual career paths within the Group also includes talent retention, through initiatives such as the Young Talent Program, developed in Germany and Austria to attract and retain young executives and develop their skills, and to support them over a year and a half in order to see them progress and to be able to occupy positions with greater responsibilities.

[35] *Saint-Gobain, Oct. 6th, 2021 Investors Meeting, Presentation, p. 50.*

As a rule, **employee development**, which implies taking into account individual aspirations as well as the organization's needs, entails listening to each employee, providing internal (geographic, functional or inter-Group entity) mobility options, and measuring satisfaction and engagement on a comprehensive and regular basis. In the final analysis, all of the Group's actions resulted in a record employee engagement index of 84% in 2022 [36], with 86% of respondents considering that their working conditions are good (see section 3.2.2.B, p. 92).

For the eighth consecutive year, the Group has been certified "Top Employer Global". This certification is a major asset for the roll-out of the "Grow & Impact" strategic plan; it confirms that the Group is well positioned to retain and attract the right talent needed to implement its ambitions, and to meet a challenge: **have the best teams in a diverse and inclusive work environment**.

This ambition is put into practice by using a whole series of mechanisms: from the quality of social dialog to training programs, compensation policy and well-being in general. It is also about **promoting diversity in all its forms**: the variety of points of view, experiences, cultures and backgrounds has a positive impact on the working conditions and creativity of the teams, on the potential for innovation, and on results. **Saint-Gobain continues to make progress**, particularly in terms of gender equality. In 2022, the percentage of women among managers at the Group level was 27.4%. In 2022, for the fourth consecutive year, Saint-Gobain was also present in the Bloomberg Gender Equality Index. This index tracks the performance of companies that have committed to supporting gender equality in their organization through ambitious goals and aggressive policies. At both Group and local level, the Saint-Gobain teams are working to encourage the recruitment and development of women; through their initiatives, changes in behavior and operating methods, the internal culture continues to evolve. The role of women within the Group concerns all activities, countries and levels in the organization, including businesses deemed to be "physical" or "dull", where diversity still needs to gain ground. This is why the Group has now formulated new targets for 2025: reaching 30% of women among managers, and 30% among members of the Business Units' Executive Committees.

Generally speaking, the Group is committed to always maintaining a diversity index above 90%, which was the case in 2022 when the diversity index was 91.8%. **Over and above diversity, inclusion is the essential target, ensuring that the contribution of each employee, male and female, is given its true value**. In this area, Saint-Gobain is making progress through targeted recruitment, the implementation of objectives and performance indicators, and internal awareness-raising campaigns.

B – Building a culture of trust, responsibility and collaboration

Saint-Gobain's new organization, aiming to empower countries and at local level, **entails building trust**, as a condition for effective delegation of authority and **fostering cross-functional collaboration** between all the Group's functions and business lines at global level. The impact that the pandemic has had on the ways of working has demonstrated the relevance of this new organization and of new management methods. Saint-Gobain's positioning as a **solution provider**, capable of assembling products, systems and services, makes this increased collaboration essential for implementation of the new "Grow & Impact" strategic plan.

The TEC (Trust, Empowerment, Collaboration) approach, which concerns **all Group employees**, applies to **behavioral, organizational and cultural aspects** of life at Saint-Gobain: **trust, empowerment, and collaboration** lie at the heart of Saint-Gobain's transformation and growth model. This implies promoting reciprocity and environmentally friendly collaborative behavior, which must free up individual energies within its teams, which contribute to the development of collective intelligence.

TEC represents a **significant change in corporate culture within the Group, which primarily concerns managerial culture**: the aim is to **establish, by default, the principle of trust** and thus move from a vertical, traditional structure, to an **open, learning organization, leaving the freedom of act at local management** level in the 75 countries where Saint-Gobain operates. It also responds to the underlying trends affecting the world in which the Group operates, and in particular to the disintermediation brought about by new technologies, which makes managerial methods obsolete and promotes profound changes in the relationship between individuals and work. Successive lockdowns, the advent of remote working and the adaptation of working conditions at production sites have required employees to increase their autonomy. The atomization of organizations has called for greater flexibility and adaptation. In this regard, the Covid-19 crisis served as a launching ramp to reshape the rules of management and interpersonal relations. In this sense, the TEC approach represents a way of aligning Saint-Gobain's strategy with changes in the lifestyles and expectations of its various stakeholders (see section 2.1.3, p. 52), as well as a way of enhancing its brand as an employer.

The TEC culture also helps make **the innovation process more efficient**, and also **helps to align it with customer needs** by removing barriers between countries, business lines (solutions for construction and solutions for industry) and functions (for example, researchers, marketing specialists and technicians).

To **implement this approach on the ground**, the Group is relying increasingly on its training program (see section 3.2.3.C, p. 95), as well as on approaches such as collective and individual coaching, made accessible to a greater number of employees, or even the gradual roll-out of 360° assessments, which are accessible to all employees and were made routine in 2022 for the entire "top 150" of the organization. Giving and receiving feedback is also encouraged, so as to strengthen collaboration and trust, across the whole Group (for example via the annual me@Saint-Gobain survey), at individual level (by developing the capacity to ask for feedback and to provide it) both in project management (for example via the Evolve collaborative platform) and at individual level (by developing the ability to request feedback and receive it).

[36] *Internal survey "me@Saint-Gobain", 2022.*

Among the initiatives put in place to promote the spread of the TEC culture throughout Saint-Gobain, two programs are deployed via the Unicampus program, combining courses and collaborative activities. The first is the virtual training session entitled "Become a Saint-Gobain culture champion to serve strategy", accessible to all Group employees, and highly recommended for new recruits. The second, called "Grow your Impact as a TEC leader", is a workshop specifically dedicated to managers in charge of teams.

A new toolkit for managers and their teams is available to those who wish to work on these topics as a team. It includes content, articles, videos and books to study the notions of Trust, Empowerment and Collaboration in depth. For the second year in a row, the annual me@saint-gobain survey (see section 3.2.2.B, p. 92) contains a TEC index composed of 10 questions, which is used to measure progress on a collective basis. Each manager can therefore measure the TEC index for their scope and draw up an improvement plan with their teams. Lastly, Saint-Gobain has developed and launched a new 360° assessment system for managers based on TEC behaviors. The Group's 150 senior executives carried out their assessment, accompanied by a debriefing with a coach in 2022. A team assessment, on the same basis, is being developed.

C – Give priority to local resources

Since 2019, Saint-Gobain has been organized according to its customers and therefore by geographical areas for its regional businesses, and by global Business Units within its High Performance Solutions division, with a view to **improving agility and remaining as close as possible to its customer base**. Based on the "Transform & Grow" plan, the Group's **corporate governance model**, which is as close as possible to its markets, is part of a resolutely "multi-national" approach. The new organization has enabled a **profound culture change**, highlighting the empowerment of teams, their **performance**, and the satisfaction of customer needs, and granting a high degree of **decision-making autonomy** at local level.

Saint-Gobain's organization and culture are therefore profoundly transformed, with a **simplified structure** (one boss principle) and 90% of CEOs native to the region in which they operate. The new rules for executive compensation (bonus entirely linked to the performance of the country or market) are aligned with performance: priority given to cash generation, ROCE, EBITDA and ESG impact (on greenhouse gas emissions, diversity and safety). In full control of the Group's development in their market, they also aim to shape the evolution of local construction ecosystems.

D – Leveraging the Group's global footprint

At the global level, the strength of an international group makes it possible to **build a pool of expertise to support its local activities**. First of all, this involves the widespread **sharing of best practices**. The **sharing of knowledge and expertise**, essential to promote synergies, is facilitated by meetings between innovation and marketing professionals, and has materialized with the creation of the "Hive" community. Evidence also of this dynamic is the roll-out globally via the Unicampus program (see section 3.2.3.C.c, p. 96), of a training offer that includes courses on the principal central offices (marketing, industrial performance, sustainable development, research and development, purchasing, etc.) combining theory, practice and experience sharing.

This approach also involves **setting up cross-business platforms** at Group level. It also involves the **deployment of shared service centers** in areas such as human resources or the finance function. Saint-Gobain's global dimension also allows us to test numerous innovative business models in different contexts and promote the exchange of best practices between countries.

This **clearly differentiates** Saint-Gobain from its competitors: in addition to its in-depth knowledge of local markets, the Group sets itself apart from local competitors through its **capacity for innovation and the operational excellence** provided by its cross-functional organization at global level. Through the richness of its offering and its ability to offer complete solutions adapted to each customer segment, Saint-Gobain stands out from its local and international competitors.

E – Search for synergies

Saint-Gobain's new organization, in general, encourages **synergies in support functions**: with unique customer services, shared online stores and common logistics, sales forces can work more efficiently and devote more time to cross-selling and upselling. It has also led to **changes in sales structures**. The search for synergies is an essential condition for the Group to be a solution provider (see section 2.3.2, p. 57). On the other hand, the objective is to offer customers combined offers and to make the Group a one-stop shop for a given application. Using these synergies, **Saint-Gobain facilitates the customer experience** by offering complete building systems along with exclusive related services. The customer only has to place a single order to receive all of the products at the worksite, while a Saint-Gobain team also ensures smooth progress of work on site.

Finally, synergies are also generated through the **spreading a culture of innovation**, (see section 2.3.4, p. 60) developing dynamic project management methods and placing the client at the heart of the approach. This culture has historically been expressed in different ways within Saint-Gobain:

- The Group's industrial business lines can thus benefit from the experience of retailers in terms of digitizing their product and service offering for customers;
- The regional businesses, in the construction markets, are increasingly developing a co-development approach, a model that is in the DNA of the High Performance Solutions businesses. They thus benefit from the experiences already existing within Saint-Gobain.

2.3.7 ALLOCATING THE GROUP'S RESOURCES EFFICIENTLY

In terms of allocating financial resources, Saint-Gobain's approach aims both to target investments in order to stimulate growth and to maintain a portfolio that is both agile and value-creating.

A – Implementing an investment policy targeting growth

a. Seizing growth opportunities in key markets and ensuring sustainable development

Saint-Gobain continued its investment policy to **strengthen its industrial capacity** in the countries where the market is growing at the fastest pace, through the commissioning of new production lines and new plants. This is an effort totaling more than €830 million in 2022, including more than €560 million outside Europe (North America, Asia and developing countries).

With regard to **plasterboard** (drywall), in 2022, the Group announced the commissioning of a new production line in Vizag, **India**, with a capacity of 40 million m^2 of plasterboard. In **China,** the Group is investing more than €42 million in the sector to prepare the construction of the second tranche of the Yangzhou site (plaster and gypsum board (drywall)) and to open a new plant in the city of Binzhou, in the north of the country. In Yuzhou, Saint-Gobain is building a new site to **recycle** up to 500,000 tonnes of desulfurized gypsum, a by-product generated by local power plants, to produce 40 million m^2 of plasterboard and 200,000 tonnes of gypsum powder per year. The Group is also continuing its growth policy in **Africa** with the acquisition of a gypsum-based product plant in Nairobi, **Kenya**; this new site enables us to cater to growth in local demand.

With regard to **mortars,** in 2022 Saint-Gobain opened a new dry mortar industrial site in Antalya, **Turkey;** these facilities will allow production of 200,000 tonnes per year, in a consciously "Industry 4.0" approach. The Group's investment in this market is also reflected in the commissioning of new plants in Muscat, **Oman** and Manila, **Philippines**, as well as by launching new production lines at the industrial sites of Haiphong, **Vietnam**, and San Luis Potosí, **Mexico**.

Among the **innovative construction solutions**, expanded clay is a lightweight, insulating and fire-resistant material. Thanks to an investment of €2 million and the deployment of advanced measurement technologies, the Häädemeeste site in **Estonia** will be able to rapidly increase production volumes, with a target of 350,000 m^3 per year, while at the same time reducing its carbon footprint.

In the glass sector, investments aim in particular to increase the efficiency of processes and their contribution to sustainable growth. The Chennai site in **India** is carrying out a renovation process, notably through the use of high-quality refractories, in order to achieve a 25% increase in production and a 15% reduction in energy consumption. In **Germany**, the reconstruction of the glass furnaces is underway at the Köln-Porz site, with the aim of modernizing all the installations and significantly reducing the carbon footprint of the flat glass manufacturing process. In **China,** a new production line was put into operation at the Saint-Gobain Sekurit site in Minhang, Shanghai, to produce laminated windscreens for electric vehicles, with an annual capacity of 900,000 windscreens.

In terms of abrasives, in 2022, the Group inaugurated a new production site in Bangalore, **India**, withith state-of-the-art technologies to reduce the production of industrial waste, energy consumption and CO_2 emissions. This plant will enable Saint-Gobain to respond to the growth of the market in the **construction**, furniture and **automotive sectors** in India, the **Middle East** and **South East Asia**.

Also in High Performance Solutions, in 2022, the Group opened a new silica glass manufacturing line in **Poland**, in Gorlice. This production, under the Adfors brand name, will provide solutions to Saint-Gobain's customers in growing markets such as **high-temperature insulation** and **batteries for electric vehicles**.

b. Supporting the Group's commitments and its transformation

To achieve its long-term goals, and in particular to meet its commitment to achieving carbon neutrality by 2050, Saint-Gobain has set up a capital investment budget over several years to support the reduction of its CO_2 footprint. For 2022, these efforts represent more than €60 million in investments in research and development, but also nearly €130 million to reduce CO_2 emissions, including nearly €60 million for Europe, more than €30 million for the Americas and more than €17 million for the "High Performance Solutions" activity alone.

B – Ensuring agile and value-creating portfolio management

Saint-Gobain pursues a strategy of managing its business portfolio that is both dynamic and value-creating.

a. Continuing the strategy of value-creating acquisitions

In 2022, Saint-Gobain completed or signed 44 acquisitions for €1.9 billion in sales. These acquisitions are perfectly aligned with the Group's strategy laid out in the Grow & Impact plan. Saint-Gobain's vision, to be the worldwide leader in light and sustainable construction, naturally leads to external growth that favors sectors such as **construction chemicals**, strengthens the Group's positioning in **lightweight and sustainable construction methods around the world**, and enables it to continue to **improve its technological leadership**.

In the field of **construction chemicals**, Saint-Gobain completed the acquisition of **GCP Applied Technologies** Inc., the global leader in the industry, on September 27, 2022, after obtaining approval from the relevant competition authorities. This planned acquisition was announced on December 6, 2021. GCP provides the Group with a world-renowned platform for cement additives, concrete adjuvants and solutions for infrastructure, commercial and residential construction. This acquisition is a decisive step in strengthening Saint-Gobain's offer to decarbonize construction, thus supporting its strategy as a worldwide leader in sustainable construction.

In order to expand its presence around the world – particularly in concrete adjuvants, which are essential to the decarbonization of construction – the Group has also finalized the acquisition of **Matchem** in **Brazil** and has signed an exclusive agreement with **IDP Chemicals** in **Egypt**. These two companies are positioned in the growth segments of the building and infrastructure sectors, in geographical areas that are expected to experience strong growth in the coming years.

In the field of outdoor construction materials, on July 29, 2022, Saint-Gobain finalized the acquisition of **Kaycan**, which had been announced on May 31, 2022. Kaycan is a major player in the market, generating more than half of its revenues in **Canada** and the rest of the **United States**. With this acquisition, the Group strengthens its status as a world leader in sustainable construction, by becoming a major player in Canada's façade beveling market and expanding its outdoor cladding offering in the United States, through solutions including aluminum and processed wood. Saint-Gobain has thus consolidated its leading position in the North American market and complemented its range of sustainable construction solutions.

In **Portugal**, the Group signed an agreement to acquire **Fibroplac** – recognized for the high quality of its plasterboard production – and **Falper**, which has developed an advanced digital solution for the design and production of light steel structures. These two acquisitions will support and accelerate Saint-Gobain's strong growth in the Portuguese market, both in plasterboard systems and prefabricated modular construction.

Saint-Gobain and Turkish group Dalsan announced that they have signed a **joint venture agreement** under which they will merge their plaster and plasterboard businesses in Turkey. In 2023, once the industrial investment of the new Turgutlu plant (Manisa) has been completed, with their combined know-how and expanded production capacity in plasterboard and plaster, this partnership will provide Turkish consumers with access to the most comprehensive and innovative portfolio of light and sustainable solutions for the construction and renovation of the building shell as well as for interior partitions. Saint-Gobain and Dalsan will also benefit from an optimized and modern industrial system, ready to serve local developers and export customers in neighboring countries.

Regarding its **High Performance Solutions**, Saint-Gobain completed two acquisitions: in the **United States**, **Monofrax LLC**, a leading regional player in the electrocast refractory market, and in **South Korea** with **Global SFC**, a major player in nano-ceramic window coating film technology. These acquisitions will strengthen the Group's technological leadership and thus boost the growth of its global activities.

b. Continuing a regular portfolio review to focus the Group's strengths

Saint-Gobain continued its portfolio optimization strategy, aimed at enhancing the Group's growth and profitability profile in line with the objectives of the "Grow & Impact" plan in the light of three decisive criteria: the strategic suitability of the activity in relation to the rest of the Group; its performance against Saint-Gobain's own value creation criteria; and its prospects within the Group's global organization.

In 2022, Saint-Gobain completed or signed 20 disposals worth €3.8 billion in sales.

Following several disposals made by Saint-Gobain since 2018 in Europe, the Group sold its **glass** processing businesses in Estonia, as well as in Germany and Austria.
In the **United Kingdom**, Saint-Gobain sold two processing sites specializing in the production of double glazing, at Motherwell (Scotland) and Canterbury (England). In **France**, the Group also sold its glass transformation business Saint-Gobain Glassolutions Grand-Ouest. This transaction allows Saint-Gobain to concentrate its investments on innovative solutions for sustainable construction, such as the so-called "low-carbon" glazing offer, which has just been launched on the market, or the recycling of glazing.

In the **retail** sector, the Group sold all of its distribution activities in the **United Kingdom**. The agreement, signed in December 2022, provides for the sale – which is expected to be finalized in Q1 2023 – of all its trademarks, including **Jewson**, its wood and building materials distributor. It followed with the sale of **International Decorative Surfaces** (IDS), its distribution business specializing in floor coverings, worktops and laminates, **CTD Tile Group**, its distribution business specializing in tiling and **Ideal Bathrooms**, its distribution company specializing in plumbing, heating and sanitary products. Saint-Gobain also sold its retail business in **Poland**. Lastly, the Group sold its wood processing and distribution business in **Denmark**, due to insufficient positioning and critical mass.

Saint-Gobain concentrates its High Performance Solutions activities on markets where the Group, thanks to its leading positions and its capacity for innovation, enables its industrial clients to accelerate their approach to carbon neutrality and circularity. It is with this in mind that Saint-Gobain sold its "**Crystals and Sensors**" business, which specializes in radiation detection for medical imaging, security, nuclear safety, oil and gas operations and environmental monitoring, and provides sapphire-based products for medicine, industry and the electronic and aerospace sectors. Following the same approach, in 2022, the Group finalized the sale of certain ceramic activities in Brazil (**Vinhedo**) and the United States (**Latrobe**), intended mainly for the traditional steel market.

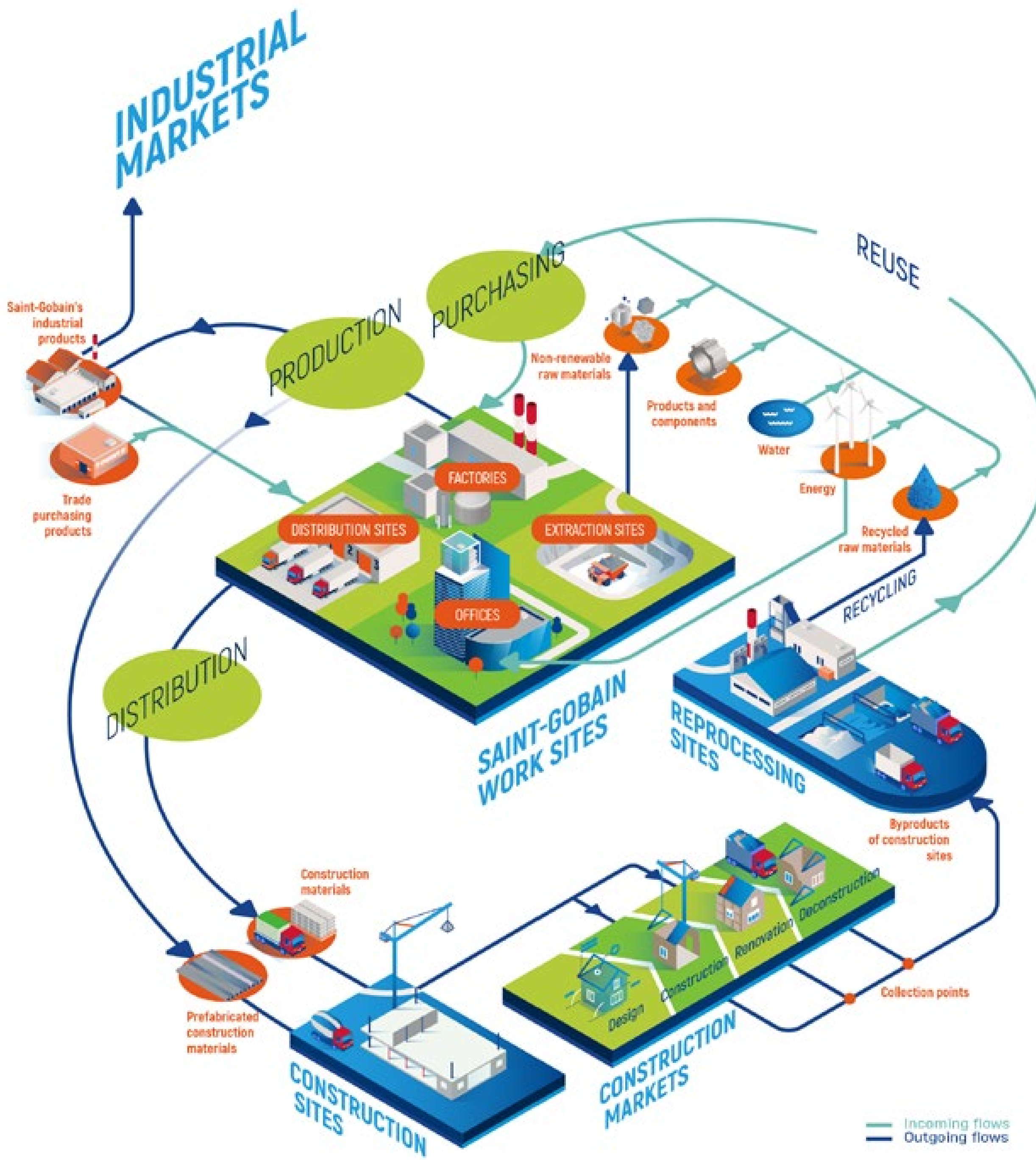
3

AN EFFICIENT AND RESPONSIBLE GROUP

3.1 MANAGING IMPACTS ACROSS THE VALUE CHAIN

3.1.1 VALUE CHAIN AND IMPACTS

Saint-Gobain's value chain: from raw material purchases to the end user integrating the end-of-life of products.



3.1.2 PURCHASING AND LOGISTICS OPTIMIZATION

A – Purchasing

Purchasing is a key factor in Saint-Gobain's competitiveness. Its organization is adapted to the specific features of its activities and the countries where it is located to ensure its efficiency and manage supply chain risks. Purchasing meets the needs of the Group's manufacturing and distribution activities. Although the purchasing functions are based on shared policies and on a common base, especially the implementation of the Responsible Purchasing policy (see section 3.1.2.B), they do not operate at the same level of the Saint-Gobain value chain:

- Non-trade purchases: these relate to purchases upstream of the production stage (raw materials, energy, chemicals, components, etc.), purchases of equipment used for production (machinery, civil engineering, etc.), all logistics expenses, as well as purchases of support functions (IT, marketing, human resources, environment, health and safety, communication, finance, audit, etc.);
- Trade purchases: downstream purchases of the production to ensure the offerings of the Group's distribution brands.

Saint-Gobain's purchasing policy favors the establishment of medium- and long-term contracts and partnerships with its suppliers.

The Group is committed to develop the professionalism of its buyers through training activities. A training path is open to all Group's buyers within the scope of the Purchasing School. More specific training courses intended for trade buyers complete this program. These training courses, which are particularly important for newcomers in the purchasing function, provide them with tools that enable them, and their teams, to achieve behavioral excellence in their daily activities.

Beyond the specific features connected with its activities, Saint-Gobain recognizes the major role the purchasing function plays in competitiveness, innovation and sustainable performance. Buyers are especially committed to the 2030 CO_2 roadmap, both for the control and the reduction of scope 3 emissions and for the development of renewable or decarbonized energy purchases (see section 3.3.3, p. 113) or to support the development of ever more sustainable products and solutions.

The supply chain of industrial sites is mostly local. Under 4% of a region's purchases are made outside its geographical region. This implies the management of a large number of suppliers. More than 205,000 companies supply the sites, of which about 21,000 account for 91% of Group purchases. Trade purchases are concentrated around over 15,500 suppliers.

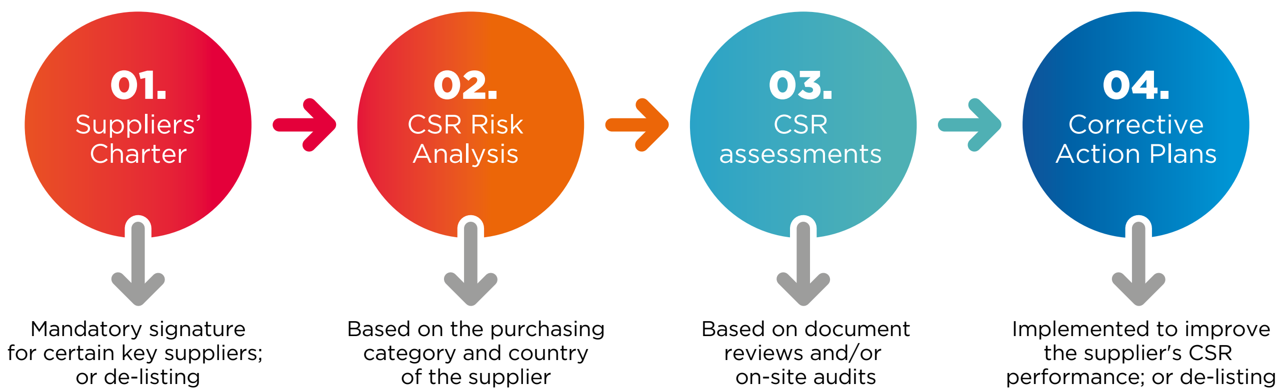
B – Responsible purchasing

In an environment where supply chains are becoming more complex, and where the collective awareness of the impacts of purchasing on stakeholders is growing, the responsible purchasing program aims to integrate ethical requirements into the purchasing process, both for suppliers, based on the supplier charter, and for buyers, by applying the buyer charter. It helps manage and reduce the environmental, social and societal risks associated with Saint-Gobain's supply chains.

Thus, ethical criteria respecting human rights, working conditions and compliance with standards, health and safety and the environment are integrated into the purchase process. The responsible purchasing program is implemented with high standards in accordance with the Group's general purchasing principles to develop long-term relationships with suppliers.

The program is based on ISO 20400 standard. An audit conducted in 2021 by an independent third party validated the approach and attested of its maturity.

The "responsible purchasing" program includes four major steps set out in Saint-Gobain's vigilance plan:



a. Risk management

The CSR risk mapping of purchases, developed by Saint-Gobain, includes risks related to sourcing country and risks related to purchasing category. Risks linked to human rights, particularly forced labor and child labor, and corruption risks are inherent to the environment of the countries of origin.

Risks linked to purchasing categories include environmental performance, and more specifically the carbon and water footprints, as well as health and safety impacts. The mapping uses recognized international sources to assess the specific risks by country and by activity. While the general principles and sources are identical, the impact of purchases and the risks for the company are weighted according to the nature of the purchase:

- Upstream purchases, managed by the non-trade purchasing team;
- Purchases related to distribution activity offerings managed by the marketing distribution teams and the trade purchasing teams.

In accordance with this procedure, purchasing categories or suppliers with specific risks have been identified, such as:

- Purchases of some natural raw materials such as wood or sand;
- Particular types of subcontractors working directly on Saint-Gobain sites;
- Purchases made in countries exposed to risks regarding human rights in general and child labor, corruption and working conditions in particular.

b. Risk management and mitigation measures

The process and tools used to manage risks for trade and non-trade purchases are aligned. However, the action plans put in place are specific to each of the two purchasing teams, to maintain management methods and a level of control adapted to the risks and potential negative impacts of each of the activities.

For non-trade purchases

Depending on the level of risk identified, suppliers answer an evaluation questionnaire based on documentation. It is verified and evaluated by a third party, and an on-site CSR audit takes place depending on the results. The entire approach forms part of a constant dialog with the supplier and leads to the establishment of action plans and CSR performance improvement plans. In 2018, the evaluation questionnaire and its related score scale were reviewed to check that they corresponded to the types and levels of risks identified by the mapping. Since 2021, following the reassessment of the minimum performance thresholds, the suppliers concerned have been invited to undergo a new assessment to comply with the Group's reinforced requirements.

Saint-Gobain has set a target of having assessed the CSR performance of more than 90% of suppliers identified as at risk and generating annual revenue of more than €100,000 with the Group for the period 2017-2022. In the context of a global health crisis in 2020 and the impacts on supply chains since then, 74.5% of these at-risk suppliers have been assessed.

The Group wants to conduct around 40 to 50 CSR audits a year, mainly in emerging countries.

The use of the “SMETA 4-Pillar” standard for on-site audits is widespread, so that suppliers' audit efforts can be better shared with all of their customers. Based on the results of the assessments, the relevant buyer implements a corrective action plan with the supplier, including priorities and deadlines for implementation.

In the event of non-compliance with these action plans or implementation deadlines, a supplier de-listing policy is applicable, after which the supplier will no longer have access to the Group's calls for tenders and all entities of the latter will withdraw from any ongoing partnerships.

The Responsible Purchasing policy is being rolled out to non-trade suppliers via a private digital platform developed by Saint-Gobain and entirely dedicated to responsible purchasing. Suppliers have access to it to acknowledge receipt of the Group Suppliers Charter, to send essential supporting documents electronically (wood certificates, quality certificates, ISO standards), to answer self-assessment questionnaires, to obtain all information on Saint-Gobain's “responsible purchasing” guidelines and to access details of their CSR evaluations or, where appropriate, CSR audits.

The responsible purchasing approach also includes ongoing training for buyers on the Group code of ethics, with particular emphasis on the fight against corruption, the working conditions of employees of suppliers, forced labor and child labor. Constant information on the sustainable development stakes is also communicated. The Non-Trade Purchasing Department has issued a “Best Practices” brochure for all purchasers, to remind them of the CSR best practices to be built into the entire purchase process.

For trade purchases

The procedures and tools are aligned with those already in place for non-trade purchases. Given the different nature of purchases, certain risk criteria and their weighting and performance monitoring are managed separately by the marketing and purchasing teams of the distribution entities. The program is overseen by members from the Group's responsible purchasing team. Accordingly, synergies and best practices for responsible purchasing are shared between the various buyers, while performance measurement is both maintained and adapted to operational risks and opportunities.

This implementation is coupled with training sessions for buyers. Strategic suppliers are the ones primarily targeted by the deployment of the Responsible Purchasing program. This concerns the European partners of the distribution entities that supply more than €3 million as well as the main partners by retailer in each country. These identified suppliers cover more than 75% of trade purchases (see section 4.2.2, p. 137).

At the same time, the marketing and purchasing teams of the “Building Distribution” Business Unit are continuing the qualification and control audits of the plants of their own-brand suppliers, especially in India and China. The purpose of these audits is to assess their management system, the environmental, social and legal aspects of production activities, and to ensure that the products are of good quality.

Following each audit, the supplier receives a report as well as recommendations on compliance with an expected effective date or paths for improvement.

c. Risk management related to natural raw materials

Sand

Purchases of sand by Saint-Gobain are intended for glass and glass wool production, production of mortars, and distribution activities. Given the quality of the sand required for our business lines, purchases are mainly made from open and mechanized quarries. Suppliers undergo evaluations of their environmental and social practices as part of the Responsible Purchasing policy. Finally, the Group is implementing an action plan to reduce its sand consumption by substituting it with recycled materials as part of the circular economy program (see section 3.4.1, p. 116). Since 2018, an indicator to monitor the reduction of extractions of virgin natural raw materials has been implemented (see section 4.2.2, p. 137).

Timber purchases

Saint-Gobain's activities have an impact on the timber sector either through the supply of packaging (pallets and boxes) or by purchases of timber for construction markets as part of its distribution activities. Environmental and social risks and those related to human rights adherence primarily affect trade purchasing. Saint-Gobain is committed to fighting deforestation through a "Timber Purchasing" policy, by acting ethically and responsibly throughout the Group's value chain to preserve forests, the local populations living in them, and biodiversity. This policy was issued in the early 2000s and updated in 2020.

To control risks and ensure traceability of purchases, the "Timber Purchasing" policy is based on a due diligence method in compliance with the requirements of the European Union Timber Regulation (EUTR), and the recommendations of recognized institutions or specialized non-governmental organizations (NGOs), such as the red list of endangered species maintained by the IUCN (International Union for Conservation of Nature) and reports of NGOs involved in the fight against deforestation. In particular, for species or regions at risk, specific certifications are required, such as the FSC (Forest Stewardship Council) label.

To ensure that the risks related to purchases can be controlled, Saint-Gobain carries out an inventory of its timber products purchases and their derivatives. This year, 95.7% of timber products and their derivatives from trade come from responsibly managed timber. An audit of this inventory was carried out by a third party specializing in deforestation issues at the end of the year in 2020 and has confirmed the solidity of the program to secure purchases and compliance with the "Timber Purchasing" policy.

As part of a continuous improvement process, the Group maintains a transparent and regular dialog with non-governmental organizations (NGOs) to promote responsible forest management.

Saint-Gobain has not completed the CDP questionnaire on forests since 2020. The Group shares CDP's objective of combating deforestation for responsible forest management. It seeks a transparent dialog with the CDP so that the specific nature of construction timber is better valued in the ratings. The questionnaire is currently focused on issues related to the use of palm oil or exotic species which are little or not present in the construction business lines. As a result, the answers to the questionnaire and the assessment are not very representative of the conducted actions and their efficiency.

C – Optimization of the supply chain

Ensuring optimized management of supply chain, from supplier to customer, is an essential part of both industrial efficiency and customer service. By ensuring the optimization of inventory levels, supply chain efficiency is also a crucial factor in cash management.

The Group's supply chains are mainly local and managed by country organizations. Global coordination and a team of experts allow common logistics optimization tools, dedicated training and customized supply chain improvement programs to be provided. These teams of experts work directly in the countries with the support of the general management bodies to raise awareness of all functions, identify potential for improvement and draw up action plans to be implemented by the country teams. Depending on the maturity of local supply chains, actions may involve optimizing the management of product lines by the marketing teams, adapting planning (customer forecasts such as plant scheduling), or optimizing transport. The objective is to maximize customer satisfaction while optimizing financial and environmental impacts.

Saint-Gobain has also developed digital programs such as "Industry 4.0" and "Supply Chain 4.0" to optimize transport. Whether it is for its purchases or customer delivery, the Group has programs for route optimization, optimal vehicle loading and more efficient travel planning by coordinating inbound and outbound transport to avoid empty kilometers.

Thus, the Group uses supply chain modeling, optimization and simulation software to find the best balance between delivery times, costs, inventories and carbon footprint.

Logistics represents more than a third of Saint-Gobain's scope 3 CO_2 emissions, so, optimizing it both upstream and downstream of the value chain is a key factor in reducing Saint-Gobain's carbon impact and achieving the target of a 16% reduction in scope 3 emissions by 2030 (see section 4.2.2, p. 137).

In partnership with logistics service providers, the Group favors the use of vehicles that comply with EURO V and VI emission standards or promotes the transition to lower-emission fuels for the fleet.

Saint-Gobain is committed to using transport modes in an agile way, switching to less-polluting multimodal transport modes such as rail and river or sea transport whenever possible.

Numerous actions have been taken, such as the initiatives of Point.P in France to develop river transport in the Paris region. For example, the Quai de Javel branch in Paris receives deliveries by barge, thus avoiding the use of trucks.

3.1.3 MANAGING THE DIRECT IMPACTS OF THE SITES

A – Risk identification and management

Saint-Gobain's industrial and distribution activities have an impact on the environment, employees and stakeholders, especially local residents near the sites.

To manage its risks, Saint-Gobain has implemented shared risk identification and measurement methods. They are rolled out at all sites worldwide. The Group implements risk prevention and control policies for both industrial risks and environmental, health and safety risks.

a. Preventing industrial and distribution risks

The aim of the industrial and distribution risk prevention policy is to reduce the likelihood of accidental events, to minimize their severity if they do occur, and finally to preserve the continuity of business operations. This policy applies to all Saint-Gobain sites.

Defined and led by the Risk and Insurance Department, this policy is rolled out within the organization to the sites by a network of prevention coordinators. A risk prevention manual is the Group reference base and is available in some fifteen languages. It includes the applicable standards, procedures and technical rules, methods for identifying and reducing risks, including natural risks, and the drafting of emergency and business continuity plans. This manual may be shared with the relevant stakeholders, such as permanent on-site subcontractors. The risk assessment tool is used by all operational sites and provides an objective assessment of the protection and prevention level. It takes into account both human factors (organization, procedures, communication, training, etc.) and physical facilities. This means that each site is able to identify its areas for improvement, develop action plans including investments, and use the tool to measure progress.

The Group is rolling out business continuity plans for each site according to the risk assessment and the vulnerability of processes to unforeseen interruptions including an anticipation of the impacts of an accident so as to limit its effects. The aim is to fully or partially ensure customer service and recover operational capacities as quickly as possible. The subcontractors working on the sites are involved in the process and must commit to a prevention plan.

Saint-Gobain constantly adapts its risk management system to better anticipate the potential risks associated with the effects of climate change. In 2022, this system was enhanced with a study conducted on the effects of climate change in the major regions where Saint-Gobain operates. This study was conducted for over 500 industrial sites in 52 countries. The potential impacts were analyzed based on various global warming scenarios. Action plans to further increase prevention, particularly in the face of natural disaster risks, are being rolled out. They include a proposal for changing the design of specific sites to anticipate potential risks.

b. Environmental, health, and safety risks

Saint-Gobain's environmental, health and safety policy is applied at all its sites. Its deployment is based on a reference framework that describes the environmental, health, and safety management system and explains the risk identification and management approach. This management system is based on ISO or equivalent certification requirements, in particular ISO 14001 and ISO 45001.

Whether it is certified or not, each site of the Group carries out its own assessment of environmental, health and safety risks under the site officer's responsibility. To do this, a standardized method has been deployed and is regularly updated. Training courses are organized for site teams, and a digital application incorporating risk analysis, assessment and management actions has been developed. This tool facilitates the deployment, reliability and monitoring of risk management action plans at all of the Group's sites.

An environmental, health, and safety risk matrix is also included in the internal control reference framework. Compliance audits are conducted, and external certification procedures supplement the control system. An internal audit standard also enables the monitoring and verification of action plans at the sites.

Audits of the environmental, health, and safety management system are conducted by the functional department concerned. These audits are conducted as a priority at ISO-certified or equivalent sites. In addition to these audits, a version of the audit methodology has been developed for smaller sites for which ISO certification is less suitable.

During acquisitions, a process for integrating new entities into the Group is deployed by the country teams, including potential compliance of the environmental, health and safety management system.

Lastly, a training matrix defines the training on managing environmental, health, and safety risks for the teams according to the position held. It is a particularly relevant tool to use to define employee training courses.

B – Operational and Industrial Excellence Program

While the sites are directly managed by country organizations, as is the case for risk management, central coordination is ensured to deploy best practices, accelerate the implementation of technical innovation and optimize the performance of the sites. The Technology and Industrial Performance Department coordinates the operational excellence programs.

a. WCM program

Saint-Gobain's World Class Manufacturing (WCM) program combines standardization of methods, tools and best practices with the modularity required to adapt to a wide variety of industrial processes and site sizes. It is based on continuous performance improvement methods such as Lean, Six Sigma, TPM (Total Productive Maintenance), or 5S. This program defines the logic, the objective of rigor, and the actions to achieve continuous improvements in terms of quality, performance and sustainability by integrating a high level of service and customer satisfaction.

The WCM program is based on certification procedures such as ISO 9001 for quality, ISO 14001 and 50001 for the environment, ISO 45001, ILO OSH 2001 and ISO 45001 for health and safety. Its management, the monitoring of its execution and the improvement of the performance of the sites are managed across the businesses in coordination with the departments of the sites.

The deployment of the WCM program at a site is adapted to its priorities, size, strengths and weaknesses and its objectives in terms of financial and environmental performance, quality and customer satisfaction. Thus, each site establishes its own roadmap, in accordance with international guidelines, standards specific to its business line, the expectations of its customers and the improvement objectives set. A WCM network of expertise has been set up to enable better dissemination of the program, the optimization of resources by country, region or business line, as well as the sharing of expertise on each of the program pillars. A central team heads up the WCM network, trains the teams, creates and applies the program standards, circulates the tools and provides site-specific assistance on request.

Saint-Gobain's WCM program is based on eight pillars, each one representing an area of excellence:

The foundations of the program define the methods and tools:

- Analyzing losses to determine a prioritization of actions;
- Resolving problems with logic, rigor and precision for lasting improvement;
- Involving and engaging employees in a proactive approach;
- Improving standards to make progress easier to deploy and more robust over time.

Achieving industrial excellence is a demanding process that requires gradual, methodical and constant implementation. To support the sites in this process, training programs are rolled out during sessions led by the central teams. In 2022, more than 2,500 employees were trained.

The benefits in terms of competitiveness, improvement of customer service, stability of performance and employee commitment can be measured at each stage of the site path. Stringency levels have been established to set principles shared by the entire organization. Each of these requirement levels matches both a performance objective set by the business and a maturity milestone in the program. Audits verify the robustness of the implemented actions and the sustainability of the results obtained. As of the end of 2022, 173 sites were certified Bronze, 50 Silver and two Gold.

The WCM program delivers a significant reduction in production costs while minimizing risks in terms of health, safety, environmental and industrial risks. The "Quality", "Industrial performance" and "Environment" pillars contribute significantly to reducing Saint-Gobain's environmental footprint by reducing production waste and water consumption and by improving energy efficiency. The WCM program and its extension to the supply chain represent a change of culture and management system, with the aim of bringing a high level of service to customers, better competitiveness and greater efficiency, while continuously improving the health and safety of all Group employees and those of its partners. It fosters and promotes employee engagement and mobility. Finally, it contributes to the success of the digital transformation of plants and to the adoption of its methods and tools by users (see section 3.2.3, p. 95).

The methods developed in the "People Development" pillar make it possible to manage Saint-Gobain's technical skills by adapting training programs, employee career paths and, if necessary, the search for external skills. This pillar is also essential to strengthen the TEC culture (see section 2.3.6, p.66)

b. Quality and the product compliance program

The Group's Quality Department aims to increase customer satisfaction by improving the quality approach through product compliance and reducing costs of poor quality.

The quality culture developed at the sites is based on the ISO 9001 or IATF 16494 certification standards, the "Quality & Process Control" pillar of the WCM program, or the "Internal Quality Control" reference framework (see section 6.2.5, p. 241). Training programs on the culture and tools of quality and compliance are also offered as part of UniCampus (see section 3.2.3, p. 95) or e-learning courses.

As product compliance is a constantly evolving process, Saint-Gobain has complemented the measures already in place in 2021 with a program to strengthen the culture of product quality and compliance. The program is designed to remind countries and local teams of the key principles and processes related to product quality and compliance throughout the product life cycle, from design to production, marketing, use and finally end of life.

This program includes four steps:

- Awareness campaigns at all Group levels;
- Definition of a roadmap by local management teams;
- Evaluation of the effectiveness of measures in the countries for each activity;
- Definition and implementation of sustainable improvement plans if necessary.

A network of local facilitators (nearly 100 facilitators trained by the end of 2022) has been set up to support the teams in the countries or activities during deployment and to ensure the sharing of best practices, thus promoting the continuous improvement of procedures. The progress of the program's implementation is monitored by a committee created for this purpose, consisting of Executive Committee members (see section 1.5.2, p. 39).

C – Protecting the health and safety of employees

The health and safety of employees are absolute priorities, and Saint-Gobain makes them central to its corporate culture. It is important for everyone to participate in their own health and safety, and those of all of their colleagues.

a. Employee health and well-being

In terms of health and well-being, Saint-Gobain adopted a policy in 2013 and updated it early 2022. It sets out the guidelines for action to protect the health and promote the well-being of its employees, customers and suppliers, users of its products, as well as residents living near its sites. The action plans focused on external stakeholders are described in section 3.2.1 p. 90 of this chapter.

To ensure the same level of protection and medical care for all its employees worldwide, the Group has established mandatory standards, medical monitoring protocols and recommendations for health and industrial hygiene. They are supplemented by specific standards for certain activities.

All Saint-Gobain sites worldwide must implement the health policy. The actions implemented by each site are prioritized on the basis of risk assessments in accordance with the "risk assessment and control" standard.

The adaptation of workstations and their adaptation in case of limitation of the employee's working capacities are also central points of implementation of the policy. Preventive programs and programs to promote health and well-being, including access to healthcare and social protection for employees and their families (see section 3.2.3, p. 94) are implemented.

The recommendations concerning the organization of first aid and the equipment of the entities with automatic external defibrillators were communicated.

Chemical risk management

Saint-Gobain is committed to reducing and controlling chemical risks (hazardous substances and products, dust). Three complementary tools have been developed to support the sites in managing chemical risks:

- The internal standard and its implementation guide on the assessment and control of the risk linked to chemical agents provides guidance to industrial sites how to conduct a periodic assessment of exposure to hazardous substances according to precise minimum rules. It is supplemented by risk management guides (ventilation and personal protective equipment, examples of chemical management and storage procedures, activity-specific product inventories, etc.) as well as training kits;
- The SBASE database provides a list of chemical substances and their classification, according to their level of danger on the basis of an internal classification system. This database is updated on an ongoing basis by internal and external experts in response to changes in the classification of the various regulatory frameworks, such as REACH in Europe;
- The SAFHEAR management tool allows each industrial site to prepare and document its own inventory of the chemical substances and products used and also potentially generated during industrial production processes. In the second phase, it allows sites to document the results of exposure assessments. These data are consolidated worldwide.

The inventory of products and substances used by Saint-Gobain entities is a continuous improvement process. As of the end of 2022, 81% of the sites have used SAFHEAR to update their inventory. The Group's objective is to have 100% of its sites covered by an up-to-date inventory by the end of 2025 (see section 4.2.2, p. 137).

Training, educational materials and technical assistance help develop the skills of health managers on site. In 2022, more than 200 people have taken at least one e-learning module related to the assessment and control of chemical risks.

Lastly, Saint-Gobain actively monitors updates to the European list of candidate substances for authorization or subject to authorization or restriction and anticipates the deadlines for authorization of substances, in order to complete its substitution and to fulfill its communication obligations with its customers.

In countries outside the European Union, subject to other chemical regulations such as the US "Toxic Substance Control Act", the Environmental Protection Act and the Chemicals Management Plan in Canada, or "China REACH" in China, the Group applies the regulations in force and monitors their evolution.

This cross-functional control of the management of chemical substances and products is also part of the product innovation and stakeholder information processes, particularly for consumers (see section 3.1.4, p. 84).

A health risk management indicator

Saint-Gobain has defined a risk control indicator for the health of its staff relating to its activities in line with its health standards.

Following the HICE (Health Indicator for oCcupational Exposure) indicator targeting noise exposure (HICE Noise), a new indicator dedicated to exposure to chemical agents has been calculated since early 2023 (HICE Chemicals). The health indicators are applied to all sites affected by exposure to noise and/or chemical agents. They correspond to the rate of potential exposure to these health hazards and aims to promote the prioritization of actions to reduce the risks of exposure to employees on the sites.

The "HICE Bruit" indicator has been communicated twice a year to the Group's Executive Committee since its deployment in 2021. At the end of 2022, it stands at a 17.4, which means that, on average, on each site, 17.4% of the work situations of employees and permanent subcontractors are subject to potential noise exposure.

The "HICE Chemicals" indicator also tracks the progress that remains to be made in assessing and reducing chemical exposures at each site. HICE is the percentage to these exposures that are subject to potential exposure to hazardous substances that should be assessed or reduced. At its first communication early 2023, it reached 69.5 with a "validation rate" of risk assessments equal to 36%. This means that 36% of the sites have had the quality of their risk assessment validated by a trained person in accordance with the Saint-Gobain requirements listed in the "risk assessment and control" standard. For these sites, the indicator is HICE 16.1. By default, the indicator for other sites that need to start or improve their risk assessment is HICE 100. The average for all sites, with or without a validated assessment, is HICE 69.5.

Managing the risks of musculoskeletal disorders

A standard for assessing factors that may contribute to the occurrence of musculoskeletal disorders and a grid for detecting ergonomic factors were developed in 2021. The ergonomics standard lists the risk factors to be assessed and specifies the method for assessing these risks, in particular on the basis of international standards (for example, EN ISO 14738:2008 and ISO 11228-3). The detection grid is an easy-to-use tool that lists the criteria to be assessed. It aims to identify improvements to be made to a work situation through a before/after rating.

The Group has a set of information and precautions as to the use of exoskeletons. A dedicated platform brings together the results of the work and recommendations of the INRS (*Institut National de Recherche et de Sécurité* – the French national research and safety institute for the prevention of occupational accidents and diseases) and the IFA (*Institut für Arbeitsschutz der Deutschen Gesetzlichen Unfallversicherung* – the institute for occupational health and safety of German social insurance body covering accidents) to cover the use of an exoskeleton for the prevention of musculoskeletal disorders (MSDs).

b. Safety

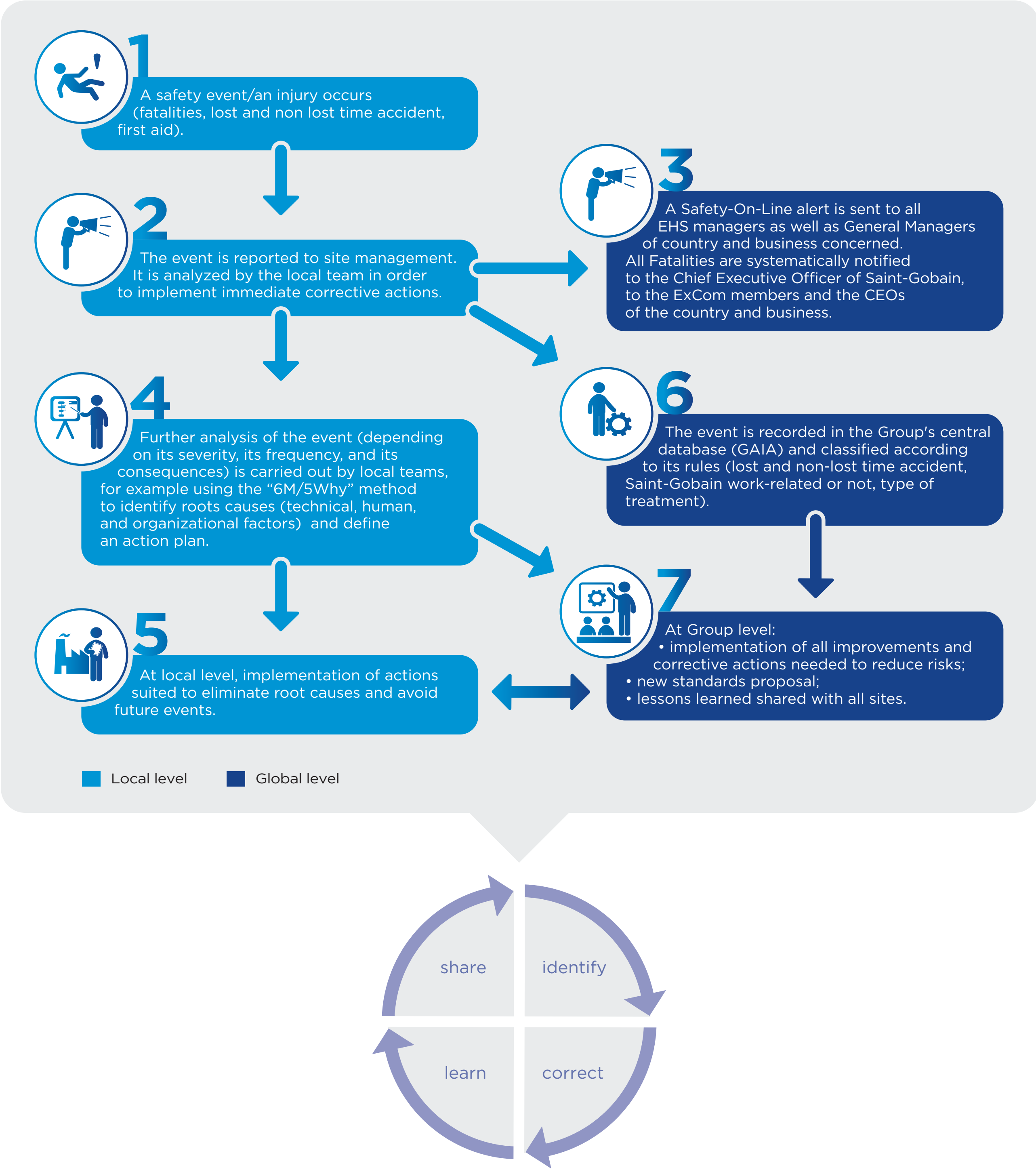
Saint-Gobain ensures that all employees on its sites, including temporary workers and subcontractors, have safe working conditions and environments by identifying, reducing and controlling risks.

At the highest level, the management has demonstrated its involvement in the development of a culture of safety within the Group. All meetings of the Board of Directors and the Executive Committee include safety performance reviews. Operational management is responsible everywhere and guarantees all aspects of safety: objectives, action plans and performance measurement. To underline this commitment, part of managers' annual variable compensation is based on actions and results in the area of safety. The performance of safety inspections and the application of safety standards are also considered.

To build on this result and sustain the overall effort, the TRAR indicator has been included in the criteria for the long-term compensation plan since 2017 (see section 5.2 , p. 183).

Daily safety management

This approach affects all Saint-Gobain's businesses and endeavors to place safety at the heart of the Group's corporate culture. The reporting and processing of safety events are as follows for events leading to injuries. Other events, such as "near misses" and dangerous situations, are handled locally (reporting, analysis of causes, archiving, consolidation and communication).



When a serious or potentially serious event (SIP for "Serious Injury Potential") occurs, local management informs their superior. Once the victim has been rescued and immediate correction action has been taken, an in-depth analysis of the accident is conducted, with the aim of determining the root causes (technical, human and organizational factors) and developing an action plan. This analysis is undertaken with the local management, and an action plan is approved.

The results of the analysis and the key points identified are then shared via the global networks of EHS facilitators, either at an entity or global level, and also with management. Alerts are circulated and shared with other sites, in order to raise awareness among staff about certain risks and to ask the following questions: "Could such an event occur on our site?" and "If so, what can be done to prevent it?" Sharing information in this way helps to strengthen the action already taken, such as risk assessments for all operations and the introduction of internal standards.

The message about identification of potentially serious events is periodically reinforced, for example during the "call to action" for all site managers organized by the Group's general management in February 2022. It is essential to be aware of them, to analyze them in depth and then to take appropriate action to eliminate the root causes of these events, which have limited consequences, but have the potential to cause much more serious damage (such as a fatal accident) if the circumstances had been slightly different. An awareness-raising video was also broadcast throughout the Group in 2022.

Safety inspections are organized on all sites according to the SMAT (Safety Management Tool) methodology. These inspections aim to encourage open dialog with the person visited, on the subject of safety and health, following the observance of work practices by the inspector. The positive points are noted as a priority, as well as any dangerous acts or conditions, which form the subject of an immediate priority action or an action incorporated into an action plan. A guide has been developed to help local teams train visitors and people visited and promote the exchange of best practices. In 2022, 465,149 SMAT visits were carried out in the Group, which represents a ratio of 2.4 visits per employee, temporary worker and permanent subcontractor.

Numerous training and information materials and tools have been developed or updated to support local teams in identifying and managing risk situations. For example, the tool "60s to Think" has been adapted to a more modern format and a communication on the concept "Dare to Take Care" has been distributed. 1,415 people completed at least one e-learning module in 2022. Two technical videos on SIP and SMAT have been translated into several languages and were viewed more than 1,000 times in 2022. A digital platform called eSuite, bringing together EHS applications to help sites on a daily basis to collect information on safety visits, risk assessments, event analyses, action plans, etc., was strengthened in 2022 by integrating it into the MDH (Manufacturing Digital Hub) of the OPEX (Operational Excellence) department. 228 industrial sites are using the eSuite. Its deployment will be increased in 2023.

Solid results

Saint-Gobain's safety commitment applies not only to its employees and temporary staff, but also to on-site subcontractors.

At the end of 2022, the TRAR (frequency rate of accidents with and without lost time for Saint-Gobain employees, temporary workers and permanent subcontractors) was 1.5. It was 1.9 at the end of December 2021. This significant reduction is attributable to awareness-raising initiatives taken at the beginning of the year by both General Management and the countries and businesses. France, for example, has seen its TRAR decrease by 41% in 2022.

As of the end of 2022, 76% of the entities did not declare any occupational accidents, compared with 74% in 2021. The "Millionaires Club" comprises the most exemplary Group sites in terms of safety, with 1 million hours worked or five years without any accidents involving lost time, including all the individuals present on a site (employees, temporary workers, subcontractors, visitors, etc.). At the end of 2022, a total of 236 sites were in the "Millionaires Club" (compared with 227 at the end of 2021). It values the entities that have the best results and that demonstrate to all that the objective of zero work-related accidents is possible. Among these sites, 86 are "Silver Millionaires" (with ten years without a lost-time accident) and 56 "Gold Millionaires" (with 15 years without a lost-time accident).

Saint-Gobain's safety commitment applies not only to its employees and temporary staff, but also to on-site subcontractors. A training and awareness-raising course on specific risks related to the presence of on-site subcontractors is offered to the teams of the sites. The buyer network is also involved in training and informing subcontractors on the security standards to be put in place and respected.

D – Environmental protection

In addition to the environmental impact management actions integrated into the "environment" pillar of the WCM program (see section 3.1.3, p. 77), thematic policies are deployed at the sites for stronger impact reduction measures. Each Saint-Gobain site implements an environmental management program that complies with the Group reference base (see section 3.1.3, p. 76)

a. Energy and air emissions

Saint-Gobain's policy on "energy, atmospheric emissions and climate change" aims to reduce its greenhouse gas emissions, by reducing its energy consumption while switching to low-carbon solutions, whether through its industrial processes, infrastructure or logistics, on all sites. To coordinate measures to reduce energy consumption and greenhouse gas emissions (scopes 1 and 2) energy and climate managers have been appointed for the most energy-intensive industrial processes. They are tasked with analyzing performance gaps relative to the best performers and with sharing best practices to be replicated across all sites.

Each site, in a manner commensurate with their impact, sets the progress targets and monitoring procedures for managing energy and atmospheric emissions, taking into account comparisons on processes between the different sites. All of these actions are part of the CO_2 roadmap, established to track the Group's commitment to contribute to the objectives of contributing to carbon neutrality by 2050 (cf. section 3.3.3, p. 113).

Greenhouse gas emissions

Direct CO_2 emissions of Saint-Gobain (scope 1) are mainly related to its industrial activities. These CO_2 emissions result from the combustion of fossil fuels and chemical reactions used in the manufacturing processes (e.g. the decarbonization of carbonates in the glass fusion processes). The Group's indirect CO_2 emissions (scope 2) are essentially connected with its electricity purchases. The use of recycled raw materials in industrial processes makes it possible to reduce energy consumption, particularly for glass melting. In the case of flat glass, energy consumption is reduced by 3% when the percentage of cullet is increased from 20% to 30% of raw materials. This reduction in energy consumption is accompanied by a reduction in CO_2 emissions (scope 1), while the reduction of virgin raw materials contributes to a reduction of greenhouse gases due to supply chains ("scope" 3).

The Group is encouraging energy audits on its sites and is setting up a system for energy management drawing on ISO 50001 certification. As of the end of 2022, 161 sites in the scope concerned were ISO 50001-certified, representing 39% of Saint-Gobain's annual energy consumption. In addition, the Group has developed an energy audit of industrial facilities to identify solutions for improving the energy efficiency of facilities, in particular through better insulation. This tool, which is currently being deployed, will contribute to the identification and implementation of measures to reduce the energy consumption of sites, as well as the resulting emissions.

Fight against air pollution

Saint-Gobain has an active approach to controlling all atmospheric emissions. Environmental managers coordinate this process. When the primary measures are not sufficiently effective, dust emissions are controlled by investments in electrostatic precipitators or bag filters, depending on the type of industrial facility. This equipment also makes it possible to filter the heavy metals resulting from impurities contained in certain raw materials. Some of the Group's plants, mainly glass furnaces and pipeline production sites, emit substances that contribute to the acidification of environments such as sulfur dioxide (SO_2) or nitrogen oxides (NOx). The primary measures introduced to reduce sulfur dioxide emissions include the reduction in energy consumption and the use of fuels with a low sulfur content. Primary measures to optimize processes, particularly combustion, make it possible to reduce NOx emissions at source. In addition to these primary measures, equipment for the secondary treatment of sulfur dioxide and nitrogen oxides is also installed.

Saint-Gobain Glass is continuing to install atmospheric pollution control equipment on all its float production lines, taking advantage of line stoppages and repairs. On its 28 glass furnaces, 23 are equipped with a system for the treatment of dust and SO_2, and 15 of a NOx. In three years, these actions have reduced dust emissions by 30%, SO_2 emissions by 20% and NOx emissions by 12% per ton of product sold.

Some industrial sites are affected by Volatile Organic Compound (VOC) emissions as a result of their industrial process. On-site monitoring is based on measurements as needed. The aim is to check that emissions are below the limits set by the environmental operation permit; as such, it is heavily dependent on the local context. Optimization of raw materials can reduce VOC emissions, while secondary measures through a decontamination unit are implemented when necessary.

b. Water management

Saint-Gobain's Water policy ("Water policy") confirms the desire to reduce the impacts of the Group's activities on water resources as much as possible, whether in terms of water intake or discharge. The long-term objective is to withdraw as little water as possible and to aim for "zero discharge" of industrial water in liquid form, while avoiding generating new impacts for other natural environments and/or for other stakeholders. To this end, Saint-Gobain does its utmost to:

- reduce water withdrawals from the natural environment and optimize processes to minimize water consumption;
- reuse "process" water whenever possible;
- recycle on-site or off-site with appropriate treatments;
- not degrade water quality by reducing and controlling discharges into the natural environment and preventing any accidental pollution;
- not compete with local populations for access to drinking water.

To assess the water sensitivity of its sites, the Group uses the global "Aqueduct" atlas of the WRI organization. This atlas is based not only on qualitative and quantitative physical risks (such as water stress or flood risk), but also on stakeholder risk (like access to water). This tool enables each industrial site to assess its water risk from "low" to "extremely high". In 2022, 75 sites representing approximately 7% of water withdrawals and 3% of Saint-Gobain discharge were located in high or extremely high-risk areas.

Most of the water discharges are from cooling plants where the water does not come into contact with any chemicals used in the process. The risks of impact on the quality of our water discharges are limited to certain of our activities, such as the manufacture of fiberglass and glass wool, the use of certain ceramic materials and certain types of abrasives and the use of certain products in our chemical construction business. Industrial sites are required to comply with local regulations and environmental permits regarding effluent treatment and quality measures. In 2022, the Group published a technical guide on water efficiency for these industrial sites, which defines the applicable treatments according to the nature of the waste.

The “Focus Site” program consists of supporting sites which contribute to 80% of the Group’s environmental indicator. In 2022, 41 sites contributed 80% of Saint-Gobain’s water discharges and 109 sites for 80% of the samples. These focus sites drew up a short-, medium-, and long-term action plan to reduce their impact. The Group’s commitment to water preservation has led it to participate, since 2012, in the CDP Water Disclosure, which aims to encourage businesses to report in detail on the risks and opportunities concerning water management and to report results transparently. In 2022, Saint-Gobain obtained an A- rating.

c. Resource management

Saint-Gobain has the long-term ambition of not producing any non-recovered production waste and of maximizing the recycled or bio based content of its products and packaging. The Group believes that waste should be considered as a strategic resource and that secondary materials (from reuse or recycling) or co-products should be used whenever possible as a substitute for non-renewable virgin resources. The policy of sustainable management of resources aims to promote the responsible management of resources in order to promote the transition to the circular economy.

The main focuses for the deployment of this policy are incorporating as much reused, recycled or bio-sourced content into its products as possible, generating as little production waste as possible, and recovering waste from its processes internally or externally.

In line with Saint-Gobain’s Health policy and in compliance with local regulations, the management of hazardous waste is closely monitored to protect the health of employees, residents, customers and users of its products and services.

Reducing and recovering waste

The industrial sites are working to reduce the quantities of waste generated in accordance with the three Rs hierarchy: Reduce, Reuse and Recycle. Incineration and landfilling should be reduced until they are eliminated.

Operational excellence carried out in the WCM program (see section 3.1.3, p. 77), particularly in terms of quality and productivity, is the first approach to reduce waste and optimize the use of resources. The sites then seek to reuse production waste in their own industrial process. Thus, sites are investing in units to reprocess their waste and adapt their industrial processes. For example, in 2022, investments were made at several sites in the United States, such as in Nashville, Arkansas, where the manufacturing site is now able to recycle in a closed loop this production waste, equivalent to more than 50,000 tons per year, thus saving as much virgin material and avoiding the environmental impacts associated with landfilling.

Even for industrial processes favorable to the incorporation of recycled materials, optimizations are possible. Saint-Gobain’s plasterboard manufacturing plant in Vietnam has introduced a process to separate the paper from the plasterboard during a waste reprocessing phase. The plaster is reincorporated into the process when the paper is recycled in the manufacture of cardboard via an external recovery network. Production waste generated during the production of bitumen membranes in the United States is recovered externally for use in addition to bitumen in road construction or renovation.

Some of the waste generated during the production of mineral wools is reprocessed before being recovered externally as a secondary raw material for the roofing industry or for certain manufacturers that manufacture acoustic ceilings. The Group is also involved in the creation of recycling networks with the help of external local partners. Progress in the reduction and recycling of waste made at certain Group sites shows that “zero non-recovered waste” is an achievable ambition.

Increase the share of recycled materials used in production

Some of Saint-Gobain’s products can be recycled indefinitely in a closed loop in their industrial process, for example glass or plaster products. Industrial processes are then adapted to replace natural raw materials with recycled materials from internal or external collection whose characteristics, in terms of granulometry, moisture or impurity rate, may differ from virgin materials. With the support of external partners, channels are being set up to collect, transport, sort and reprocess waste, before turning it into secondary raw materials that can be put back into our processes. Other Group products also accept the replacement of virgin raw materials by recycled materials from other consumption circuits, for example glass wool, cast-iron pipe, ceramic grains and powders.

Actions are also being taken in all the Group's businesses to accelerate the transition to a circular economy, for example through innovation initiatives, the development of new industrial processes for recycling products at the end of their life cycle, the implementation of industrial symbiosis enabling us to use the waste from certain industries as raw material for our own needs, etc.

This change in composition, which involves reducing extracted virgin material inputs to replace them with recycled materials from end-of-life product recovery channels requires adapting industrial sites, in particular raw material storage areas, composition workshops, or even industrial processes themselves.

The amount of recycled material in the products depends mainly on the existence of efficient, sustainable collection networks capable of supplying the sites.

The approach applied to products also applies to the packaging that accompanies them. Action plans are rolled out at the central level and relayed to the national level to increase the recyclability and recycled content of the packaging used.

The procedures for collecting end-of-life products are described in section 3.4.4, p. 118.

d. Biodiversity and land use

Saint-Gobain is particularly committed to protecting biodiversity at its high-impact sites or in areas with remarkable biodiversity. Thanks to the experience acquired in the field of extraction activities, the Group now has strong internal expertise in the area; it has adopted a biodiversity policy, the aim of which is to preserve, restore, enhance and boost biodiversity, and to this end to encourage the involvement of all relevant stakeholders.

A mapping study of all Saint-Gobain sites, carried out using geographic tools such as WDPA, is updated regularly and makes it possible to assess their sensitivity to ecosystems based on their proximity to areas of high biodiversity value. The protected areas considered are areas recognized by the International Union for the Conservation of Nature (IUCN) or more locally defined as Natura 2000 or RAMSAR areas. In 2019, the study was continued, adding as criteria the environmental impact of the sites, the expectations of stakeholders and the actions already undertaken in terms of biodiversity. This made it possible to finalize a list of around one hundred priority sites in 2021, the vast majority of which were quarries, for the implementation of biodiversity management plans and the sharing of best practices.

Out of the 99 underground or surface quarries operated by the Group worldwide, the vast majority are for the production of gypsum (72, representing 73%). A charter for the environment and biodiversity in all Saint-Gobain's quarries and mines was published in 2019, capitalizing on the experience acquired over many years in gypsum. The Group's quarries are operated and then restored with the aim of preserving the environment in accordance with the local rules. During the operating and restoration period, the effects on residents and on the environment are reduced as much as possible: visual impact, dust, noise and vibration, consequences to road traffic and repercussions on the local natural environments. In 2022, 28% of Saint-Gobain priority sites, around two thirds of which are active quarries, already had a biodiversity management plan analyzed centrally. "Biodiversity representatives" have been appointed at each of the priority sites. A training module explaining the challenges of biodiversity and the successful implementation of a biodiversity management plan was rolled out, and around twenty best practices in terms of biodiversity were distributed internally.

Saint-Gobain participates in the "Act4nature International" program, a voluntary commitment to biodiversity from international companies: one of the strong commitments concerns the implementation of biodiversity management plans for all active open-cast quarries by 2025.

3.1.4 DESIGNING AND DISTRIBUTING SUSTAINABLE AND EFFICIENT SOLUTIONS

A – An innovation process focused on safety and performance

Saint-Gobain regularly develops its innovation methods and processes to meet new market expectations, particularly the development of ever more sustainable solutions (products, systems and services). The innovation approach, made up of iterations, creativity, agility and openness to the outside world (university, partners, etc.), puts the customer at the heart of the project from the identification of needs to the validation of prototypes.

The methods used concern local projects and international projects (via pilot countries). The marketing teams are involved in the characterization of needs (functional analysis) and formalize functional specifications. These specifications are the foundations for the development of the innovation that will be taken up by the R&D teams. Customers are also involved in the validation of industrialized solutions before their launch.

Saint-Gobain has a procedure for monitoring innovation applied to products, which is initiated by the R&D and marketing teams. The tool is a sequenced operational roadmap for the development teams, where every step in the innovation process is reviewed by a committee set up for this purpose. This methodology allows for the identification of and prompt attention to potential problems. Close monitoring of the progress achieved and product performance means that the process of innovation is faster and more secure.

The environment, health and safety checklist, introduced in 2008, is integrated into the innovation process. It enables a qualitative assessment of the substances included in product formulations and identification and reduction of environmental and health and safety impacts throughout the product life cycle. With regard to hazardous substances, the aim is to prevent the use of new hazardous substances and reduce their use in raw materials while reducing and controlling exposure levels. The innovation process incorporates normative and regulatory requirements, from the functional marketing specifications stage. Local marketing teams ensure that products comply with regulations and standards applicable in the countries of commercialization. The process for launching new products, systems and services is checked within the framework of internal control (see 6.2 , p. 230). It is regularly updated to improve the quality management system procedures and associated monitoring indicators. Technical products are launched after sales force training and reinforced support by product managers and technical trainers. In several countries, they intervene directly on the worksites when installers use a differentiating innovation for the first time, throughout the launch phases until the sales organization reaches a sufficient level of maturity. The marketing and sales community, which brings together teams in different countries and activities, shares best practices and facilitates the integration of newly acquired brands.

Saint-Gobain University's Unicampus program (see section 3.2.3, p. 95) offers five training courses on the innovation process. In 2022, 1928 people were trained. These training courses are intended primarily for the R&D, the marketing functions of local activities and newcomers in marketing or central R&D teams. A product compliance training module has also been integrated into the program. Concrete courses combining theory, practice and experience sharing are offered widely to the principal offices involved in the innovation process, such as marketing, R&D, purchasing, production and industrial efficiency.

A new training course was launched in 2021, "Derisking a key success factor for your innovations", whose objective is to greatly increase the success and impact of innovations while reducing lead times by relying on better anticipation. Built around the Business Model Canvas, it helps identify all types of risks and conditions for the success of innovation projects at each stage of development, including launch.

Finally, the World Class Manufacturing (WCM) industrial excellence program (see section 3.1.3, p. 77) ensures the deployment of best practices in terms of quality and product compliance at industrial sites, based on the ISO 9001.

At the European level, the Group contributes to the work of the European Committee for Standardization (CEN) in developing standards and regulatory systems. Likewise, its active participation in European interprofessional associations such as EURIMA, Eurogypsum, Glass for Europe and EMO provides input into the Group's vision of standards development in Europe, in particular through exchanges with the European Commission and its institutions such as the European Chemical Agency (ECHA) in charge of the REACH regulation.

With regard to consumer information, the Group's products comply with current regulations, such as CE marking in Europe or the requirement for chemical products to have labels and safety data sheets (SDS). Saint-Gobain also provides non-mandatory information specific to some of its products, such as:

- voluntary safety data declaration sheets for unclassified articles or substances;
- the declaration of the composition of components and materials via the IMDS database (International Material Data System) in the case of the automotive industry;
- specific labels such as the environmental and health data sheet for construction products in France;
- voluntary certifications obtained through independent national laboratories – or, failing that, international laboratories close to these markets – when innovative products or systems are not covered by international or national standards.

Specific measures related to the product compliance program are presented in section 3.1.3, p. 78.

B – Customer satisfaction

Knowledge of current and future market expectations is essential in order to achieve Saint-Gobain's medium- and long-term targets. For this reason, the satisfaction of its customers is a priority for the Group, whose objective is to be an organization focused on their expectations.

To measure customer satisfaction, several practices have been extended to all Group activities:

- Firstly, a short questionnaire is sent to all customers and potential customers, both direct and indirect, at the time of each interaction, in order to identify the main points of satisfaction and dissatisfaction, and to determine the net promoter score, the only measure common to all; this refined measure will eventually make all customers the Group's primary influencers;
- Secondly, a more rigorous and responsive measurement of compliance and punctuality since these two parameters are the two most frequent sources of dissatisfaction in all the questionnaires: first and foremost, customers demand that their suppliers' promises be kept.

Thus, customer satisfaction measurements are carried out on a regular basis for all activities.

In the field, brands are increasingly collecting feedback from customers (defined as any person having an influence on the purchasing decision) on a relationship and transactional level, with the dissemination, internally and across functions, of best practice in the area. This data is cross-referenced with the context of the relationship, as well as with the type of customers, in order to assess the degree of satisfaction throughout their journey, i.e., across the entire chain of interactions between them and the Group's brands. In this context, the satisfaction questionnaires already implemented have shown that compliance and punctuality are the most frequently cited negative points.

One of the Group's areas of excellence and progress is training in order to build a growing community of customer experience experts. Each year, more than 200 people are trained in customer experience methods and concepts through the Unicampus program. In addition, a platform called "Pulse" has been created to centralize and make available to Saint-Gobain countries and entities methodologies and tools for managing the customer experience, such as "personas", i.e., the definition of groups of customers whose behaviors and preferences are merged into a single predictive model.

In addition to the measurement of satisfaction itself, all of these systems create the basis for a co-development approach; on the basis of customer opinions, a shared innovation process can be put in place.

C – A range of sustainable and efficient solutions

Saint-Gobain's ambition is to offer solutions that combine performance and sustainability to meet the expectations of its stakeholders, in particular its customers, and to enable acceleration towards a more sustainable and low-carbon economy.

A standard method has been deployed in the organization. It is adapted to local markets and circumstances to identify the most relevant solutions and measure the provided benefits. The impacts of the solutions are assessed across the entire value chain and for the main stakeholders involved, right through to the end user.

The criteria used to measure the benefits related to sustainable development focus on environmental, health, and well-being impacts. The measurement of the performance of solutions focuses on the increase in economic value for the customer (productivity or other financial benefits) and the user experience.

In order to standardize the measurement of impacts and to accelerate differentiation in its markets, use cases have been selected to illustrate the value provided by Saint-Gobain solutions. They concern the decarbonization of industry through the solutions of the HPS, renovation and new construction Business Units. For each use case, local teams identify solutions combining products and services offered by the brands and distribution networks. The tools developed enable them to measure the benefits and thus to adapt the offer and the sales pitch to the expectations of the stakeholders.

This program covers more than 90% of Saint-Gobain's sales and helps to orient Saint-Gobain's offer towards sustainable construction markets. The methodology used to identify sustainable solutions is available on the Group's website and has been reviewed by an independent third party.

The criteria used to measure environmental benefits are:

- energy efficiency and its carbon impact;
- optimization of natural resources, including water resources;
- all products and services that support the environmental efficiency of other industries.

The criteria used to evaluate the benefits in terms of health, comfort and well-being are:

- safety and security, including the reduction of occupational risks in the value chain;
- ergonomics;
- indoor air quality;
- acoustic comfort;
- thermal comfort;
- visual comfort.

The share of revenue generated with sustainable solutions is 73.9% in 2022 in line with the target of 75% by 2025. Saint-Gobain's sustainable solutions revenue includes activities not assessed in the context of compliance with the European regulation 2020/852 Taxonomy regulation (see section 9.3.5, p. 389) such as distribution activities, impacts and benefits not yet integrated into the regulation such as resources and the circular economy or finally benefits related to health, safety and comfort that will potentially be eligible for the social taxonomy.

3.1.5 ETHICS AND COMPLIANCE

A – Applying Saint-Gobain's Principles of Conduct and Action

The Principles of Conduct and Action charter is the code of ethics that forms the foundation of all of Saint-Gobain's policies and commitments (see section 1.2.2, p. 16). The principles define the values and rules applicable to all Group entities and employees, across all employment contract types (permanent contracts, fixed-term contracts and temporary workers), and also to their subcontractors and suppliers. This applies in particular to compliance policies, the human rights policy, the environmental, health, and safety charter, the purchasing and suppliers' charters of the responsible purchasing program, and the diversity policy.

The code of ethics also sets out the procedures for working with stakeholders, with a particular focus on permanent on-site subcontractors, other subcontractors and suppliers. For this reason, it is translated into 31 languages and is available on the Group's website for wide distribution to stakeholders. Each employee, including those on fixed-term contracts and temporary workers, receives information during their induction about the code of ethics in the local language. This may take various forms, depending on the country:

- A welcome brochure with comments from the Human Resources representative;
- The code of ethics directly incorporated into the employment contract.

An e-learning course called "Adhere" is available for all employees and is compulsory for all managers. The Saint-Gobain University Management School offers an introduction to business ethics to allow managers to discuss issues and share their operational experiences.

The Group has set for itself the goal of training each new manager, within the first year of integration, to the code of ethics, the fight against corruption and compliance with competition law ("Adhere", ACT and Comply). This objective is included in the CSR dashboard monitored by the Board of Directors (see section 4.2.1, p. 134).

B – Deploying the ethics and compliance programs

At Saint-Gobain, the ethics and compliance programs are thus designed and implemented as a natural extension of the Group's values and commitments.

While ethics aims to ensure that everyone complies at all times with the values at the heart of the Principles of Conduct and Action, compliance aims to ensure that everyone always complies with laws, regulations and international conventions applicable to the Group and internal rules derived from them, the violation of which could result in penalties (disciplinary, civil, administrative, or criminal) for the company, its executives and its employees and/or commercial, financial and reputational damage.

Since 2009, the ethics and compliance program has been supported by a network of professionals both at central and regions or activities level, as well as the adoption and deployment of appropriate and effective tools (internal policies and procedures, training, whistle-blowing system, reporting and audits) and the promotion of good habits.

a. Commitment of the management bodies

In ethics and compliance, the Board of Directors exercises control over general management. As such, its role is twofold:

- It ensures that ethics and compliance issues are taken into account in major strategic choices;
- It ensures that the ethics and compliance program is properly implemented.

The involvement of general management is crucial for ethics and compliance. It promotes and disseminates the culture of ethics and compliance, demonstrating its commitment through the following actions:

- Taking into account ethics and compliance issues in strategic projects or decisions;
- Implementing the ethics and compliance program with the support of the Ethics and Compliance Department;
- Communicating internally and externally its overall support for the ethics and compliance program, particularly regarding zero tolerance for corruption and the whistle-blowing system.

b. Ethics and Compliance Department

Its mission is to promote and defend the Principles of Conduct and Action and to design and implement the Group's ethics and compliance program in the areas of business ethics, competition law, the fight against corruption, influence peddling and money laundering, economic sanctions and export controls, data protection, the duty of care and human rights. It identifies and assesses risks, proposes policies, procedures and programs to mitigate these risks and conducts internal whistle-blowing investigations. Finally, it develops and provides training and communication for the programs.

The department consists of the central ethics and compliance team, which relies on a network of ethics and compliance managers in the regions and activities who are responsible for ensuring the effective deployment of the programs within their scope.

Beyond that, Business Compliance Correspondents (BCC) in the countries and Business Units have the role of ensuring the dissemination and knowledge, within their scope, of the Group's ethics and compliance program and culture.

C – Main ethics and compliance policies

a. Compliance with anti-corruption and influence-peddling rules

All over the world, corruption undermines trust in public institutions, makes the most vulnerable even weaker and is the breeding ground for violence, slowing the transition to a more sustainable world. The active fight against this scourge is of concern to everyone.

Since 2003, Saint-Gobain has expressed its commitment to the fight against corruption by signing the United Nations Global Compact, the 10th principle of which calls on companies to take action against corruption.

Since 2003, the Group has set up a program to prevent the risks of corruption and influence peddling, including a commitment from executives and strict compliance with the principle of "zero tolerance".

In particular, this program is based on:

- a mapping of the risks of corruption and influence peddling;
- policies and procedures;
- training, in particular the digital training called "ACT", which is received by all managers when they are onboarded as well as every two years;
- communication actions;
- audits conducted internally or by external service providers;
- a whistle-blowing system open to all Group employees and all other stakeholders.

In 2020, the Group publicly released a new version of its anti-corruption policy on the fight against corruption and influence peddling.

The purpose of this manual is to define and illustrate the various types of behavior to be prohibited, review the Group's rules and the best practices to adopt. It gathers the procedures relating to all areas in which corruption and influence-peddling risks are likely to materialize, such as gifts and invitations, conflicts of interest, recruitment, mergers and acquisitions, or the management of intermediaries.

All Saint-Gobain employees must feel responsible for the fight against corruption. That is why in 2022, a digital register to collect employee declarations regarding gifts and invitations (given or received), donations, patronage, sponsorship and conflicts of interest was added to the corruption and influence-peddling prevention and detection system. It is accompanied by an update of the corresponding procedures.

The anti-corruption policy is fully committed to by both the Group's Chief Executive Officer and the Group's Executive Committee and was signed by nearly 3,000 senior employees when it was launched.

b. Compliance with competition law

Saint-Gobain has put in place a competition law compliance program based on:

- policies and procedures, especially regarding membership with professional associations, which are now declared in a dedicated digital tool;
- training and communication actions: practical guides are made available, in particular "The ins and outs of competition law" available on the Group's website; an e-learning training course called "Comply" is received for the first time by all managers when they are onboarding, and then repeated every two years; numerous in-person training sessions are provided by the Ethics and Compliance Department and the ethics and compliance managers; lastly, the theme was covered as part of the Principles of Conduct and Action Day;
- audits conducted by external service providers (see section 6.2.2, p. 231)

c. Compliance with economic sanctions and export control regulations

Saint-Gobain has implemented a program for compliance with economic sanctions and export controls. It is based on:

- a Group policy, "Trade compliance", which is currently being overhauled;
- a network of people in charge of these issues for the Group's activities, deployed at the relevant level of the regional activities, the Business Units, or the country level;
- tools to monitor the evolution of applicable regulations are available: a screening tool (screening sanctions) of third parties and country files to identify risks and apply the necessary diligence updated in line with changes in regulations;
- training and communication actions: managers exposed to these issues undergo training; in-person training is provided by members of the dedicated network;
- "sanctions and export control" audits conducted by external service providers on Group entities previously identified by the central team.

d. Personal data protection

Saint-Gobain pays particular attention to personal data protection. The Group policy on this subject is publicly available on its website. The purpose of this policy is to set out data collection, use, communication and confidentiality conditions.

As Saint-Gobain's activities are highly decentralized, the data protection governance aims to support the entities by taking into account their needs and the local context in which they operate. Within the European Union, each Group entity must appoint a Privacy Correspondent who manages the compliance of activities with the support of a Privacy Advisor and in close collaboration with the business lines (IT, digital technology, marketing, human resources, etc.). This network of employees who dedicate part of their work to maintaining this approach (Data Protection Network) is run by a central team (Data Protection Central Team), headed by the Group Data Protection Officer. It is composed of 40 Privacy Advisors approximately (lawyers or auditors) and about 400 Privacy Correspondents (operational profiles).

Outside the European Union, the Legal Departments also take these issues into account. Each entity must appoint an employee who will be the point of contact dedicated to personal data protection issues. Saint-Gobain encourages the application of key principles of personal data protection, regardless of the location of the entity. As such, in the main countries concerned, these principles provide protection beyond the local regulations in force.

Communication actions are implemented with the Data Privacy Network and functions (human resources, IT, etc.). Practical guides and procedures are made available to them. Training is given, in particular through an e-learning course called "Data Protection by Saint-Gobain".

Saint-Gobain continues to roll out a data protection management platform in its European entities, and also in other regions (for example in Brazil). This platform facilitates the governance of personal data protection, notably by keeping records of processing activities, assessing the guarantees presented by service providers in terms of data protection, carrying out related Data Protection Impact Analysis (DPIAs), the management of incidents involving personal data, etc. Training in the use of this platform is regularly offered to Privacy Correspondents and to Privacy Advisors.

The Group has developed a new tool allowing the Data Protection Network to better document the management of these incidents and contribute to the annual data breach assessment.

Lastly, personal data protection is covered by the internal control reference framework for both companies established in the European Union and for those established outside the European Union (see section 6.2.5, p. 241).

e. Taxation

Saint-Gobain acts in compliance with the tax laws of the countries in which it operates and fulfills its tax reporting and payment obligations in time. The Group has therefore not established structures whose purpose is tax evasion. It applies tax laws and regulations with honesty and integrity. Its intragroup transactions comply with the arm's-length principle.

Even if the new rules related to the reform of the international tax system initiated by the OECD have not yet all been defined, Saint-Gobain does not anticipate any significant change in its income tax expense since it is correlated with its locations and therefore with the creation of the value.

3.2 A BETTER LIVING FOR ALL

3.2.1 ETHICS AND RESPONSIBILITY

A – Respect for human rights in the Group's activities

a. Commitments

Saint-Gobain's values, formalized by the Principles of Conduct and Action, are an essential vector of mobilization for human rights due to their reference to international conventions, such as the International Charter on Human Rights or the applicable conventions of the International Labor Organization and in particular the conventions 87, 98, 111 and 135 on the freedom of association and protection of the right to organize, on the right to organize and collective bargaining, on discrimination, and on workers' representatives respectively.

Saint-Gobain has been a signatory of the United Nations Global Compact since 2003. The first two principles of the Global Compact invite companies to "support and respect the protection of internationally proclaimed human rights" (principle No. 1) and "make sure that their own companies are not complicit in human rights abuses" (principle No. 2).

In 2019, the Group published its policy on respect for human rights. The policy has been presented to the Board of Directors. It describes how Saint-Gobain takes into account human rights impacts and outlines the associated due diligence process. The whole approach is based on the recommendations of the United Nations, particularly the guiding principles on business and human rights. Accordingly, Saint-Gobain is committed to respecting human rights wherever the Group conducts its activities and in its supply chain.

b. Analysis of human rights risks in the Group's activities

Saint-Gobain's main human rights issues are identified following the methodology proposed by the United Nations in the context of the application of its guiding principles and concern the human rights that are likely to be most seriously affected by the negative impact of the company's activities and its value chain.

The method to identify the risks of actual or potential negative impacts draws on the United Nations' reference base and on external sources recognized for their relevance. These sources are linked to international institutions such as the United Nations with the Human Development Index, specialist non-governmental organizations such as the Transparency International Corruption Perceptions Index, or foundations such as The Global Slavery Index by the Walk Free Foundation to end forced labor.

The analysis resulted in a mapping of the risks related to the Group's activities. It includes the risks related to the supply chain and respect for human rights described in the section on responsible purchasing (see section 3.1.2, p. 73).

The risk mapping covers the nature of the risks linked to activities and risks linked to the countries in which Saint-Gobain operates. The main risks identified concern four areas: respect for employee rights, health and safety at work, respect for the environment and anti-corruption.

The management of occupational health and safety risks is described in this chapter, section 3.1.3, p. 78, and those concerning respect for the environment in this chapter, section 3.1.3, p. 81. Corruption risk management is described in this chapter, section 3.1.5, p. 87.

In November 2021, the due diligence process was undertaken to update the Group's assessment of human rights risks and impacts as well as the measures implemented to manage these risks, limit the risks of negative impacts, provide responses to impacted stakeholders if necessary, and improve situations that need to be improved. To this end, a questionnaire was sent to human resources and operational managers in 35 countries identified as the most exposed, and the responses were analyzed. This analysis allows the verification that the Group's practices are in line with human rights policy and that the risks are identified.

c. Measures to control risks associated with employee rights

Respect for people and respect for the rights of employees are essential to ensure a just and fair working environment for personal and professional development (see this chapter, section 3.2.2, p. 91). "Respect for people" and "respect for the rights of employees" are two principles that make up the Saint-Gobain Code of Ethics, the first being a principle of behavior and the second a principle of action. In addition, thanks to its human rights policy, Saint-Gobain clearly described its commitment to the following principles: the fight against forced labor, the fight against child labor, freedom of association and the fight against discrimination. Since signing the United Nations Global Compact, the Group has published a communication on progress in these areas. In addition, in 2022, the Group supplemented its system with the publication of an anti-harassment policy.

Saint-Gobain entities ensure that each employee performs their work on the basis of freely agreed terms of employment according to a shared and accepted document and receives payment of a fair wage according to the hours worked. Freedom of association is guaranteed at all industrial sites and sales outlets. The age of the employee is checked by local employees as part of the fight against child labor. An annual analysis of the HR database is performed to verify that employees under the age of 18 are employed under specific contracts related to their education, such as apprenticeship contracts.

Finally, the Group values and seeks diversity among its teams. Mutual respect and a policy of equal treatment in terms of recruitment, access to promotions, professional training and compensation are the main levers for action. Everywhere it operates, Saint-Gobain undertakes to promote inclusion and diversity in all its forms: gender, nationalities, training, career paths, generational diversity, disabilities and ethnic and social origins.

The system for collecting incidents reported by the network of local HR has been improved to encourage employees to express themselves directly to their superiors or the human resources network. Entities declare any incidents of discrimination leading to a complaint or otherwise, in the course of judgment or finally judged and characterized as such. Every incident is examined and dealt with in the subsidiaries concerned. Group employees also have access to a whistle-blowing system allowing them to remain anonymous, described in this chapter, section 3.2.1, p. 90. Particular attention is paid to ensuring confidentiality and protecting people from all reprisals.

Following the analysis of the questionnaires completed by Saint-Gobain's local teams at the end of 2021 as part of the due diligence process, preventive actions have been launched to further limit the risks of human rights incidents. The best practices identified in certain countries concerning recruitment agencies, worker accommodation and security forces have been shared within the Group.

B – Participation in public debate

a. Advocacy

Saint-Gobain participates in public debates on the strategic challenges for its business activity and environment. This participation takes place directly, via professional associations, and via global, regional, or local alliances. The Group's advocacy activities aim to constructively feed into discussions and bring together value chain players and stakeholders. Inspired by its corporate purpose "Making the World a Better Home", Saint-Gobain regularly works on the priority themes of decarbonizing the economy and circularity in the construction sector (see this chapter, sections 3.3, p. 100 and 3.4, p. 115).

Saint-Gobain and most of its subsidiaries belong to professional associations representing their industry at the national or supranational level. For example, in France, the Group is involved in professional associations representing companies, such as Afep or Medef. Saint-Gobain's subsidiaries also cooperate with various local associations or organizations involved in regulatory issues, or related to environmental, social, societal or economic issues. The subsidiaries have internal procedures in place to ensure that their participation in associations is recognized and referenced, and that employees who represent them in associations are trained in the rules of antitrust law.

Saint-Gobain ensures that its advocacy initiatives are aligned with its commitment to contribute to carbon neutrality by 2050. Its actions and positions therefore take into account the ambition to limit the rise in temperatures to below 1.5 °C.

The Group ensures proper coordination of the positions taken locally and ensures that these institutional commitments are well known and respected by the countries. Saint-Gobain complies with the transparency obligations applicable to relations between companies and public authorities in all countries where it operates.

A list of the Group's main partnerships and involvements is available on the website (https://www.saint-Gobain.com/en/corporate-responsibility/our-responsibility/our-commitments-partnerships-and-recognitions).

The Group refrains from financing any political party.

b. Multi-stakeholder partnerships

As a member of the United Nations Global Compact, Saint-Gobain regularly reports on its progress in the areas covered by the Compact, to which it adheres at the "GC Advanced" level, i.e., according to 21 criteria. Saint-Gobain also encourages its partners, particularly its suppliers, to commit to the Global Compact's ten principles.

Likewise, the Group pays special attention to the United Nations Sustainable Development Goals (SDGs), so as to make progress in evaluating the real impacts that companies can have in working towards a fairer, more sustainable world. These goals also make possible new multi-stakeholder collaborations, in which companies are engaged locally and globally.

Finally, the Group is a member of the forum of committed companies with the organization Transparency International France. Thus, Saint-Gobain supports the association's activities and has committed to rejecting and combating corruption, in all its forms. The Group undertakes to make its best efforts to implement a solid prevention mechanism, inspired by the current best practices of the business world.

C – The whistle-blowing system – SpeakUp! by Saint-Gobain

Saint-Gobain has an ethical and professional whistle-blowing system that is accessible to employees and all other stakeholders (customers, suppliers, shareholders, trade unions, NGOs, local communities, etc.) to report any breaches of applicable regulations or internal rules and procedures, in particular those related to the code of ethics.

A highly secure platform has been in use since June 2020 to collect alerts and to exchange with whistleblowers, including in an anonymous way. In 2022, a related module was deployed to manage the follow-up of investigations from the time of reporting to the implementation of recommendations. It is accompanied by a practical guide that reminds the "Alert Examiners" of the main principles of alert processing, describes the necessary steps (admissibility, investigation, and conclusions) and the precautions to take to conduct investigations in a confidential, professional and impartial manner. Finally, this guide provides documentary support to inform and secure exchanges with the parties, whether they are alleged victims, witnesses or respondents.

The policy on the Group whistle-blowing system and an explanatory video facilitating the understanding and the use of the platform by stakeholders are published on the Saint-Gobain website.

In 2022, more than 845 alerts were received and processed throughout the Group.

This second year of reporting of the platform's alerts revealed the high expectations of employees regarding the Group's values and the behavior of managers. Beyond the sometimes painful personal situations, each report to the organization is also an opportunity to progress. A new communication campaign "SpeakUp! by Saint-Gobain" was conducted in December 2022 to continue to encourage employees to speak out.

Annual data on the collection of alerts are published in Saint-Gobain's non-financial results (see chapter 4, section 4.2.2, p. 137).

3.2.2 A HEALTHY AND ENGAGING WORK ENVIRONMENT

A – Deploying an engaged HR policy

Building on its history and its rich social dialog, Saint-Gobain's Human Resources (HR) policy ensures the provision of an environment that is conducive to the employee's professional and personal growth and balances job-related performance with their well-being. This policy requires a compulsory buy-in from all employees for Saint-Gobain's values as expressed in its code of ethics, the Principles of Conduct and Action. Saint-Gobain's human resources policy must allow for rapid adaptation of the organization and, in particular, careful management of changes in skills requirements, support for employees in the face of major transformations, as well as attraction and retention of talent.

To do this, it incorporates two dimensions:

- Global coordination tasked with defining a common framework for all Group employees, incorporating ethical values, respect for human rights, the deployment of managerial principles based on trust, empowerment and collaboration, and the offering of training programs to better handle major cultural and market transformations, the establishment of ambitious and demanding health and safety objectives, social protection, diversity or any other subject that brings about decent working conditions for all;
- Local implementation, by the HR teams in charge of social dialog, wage policy, local adaptation and the implementation of action plans to achieve Saint-Gobain's objectives.

The Human Resources Committee meets every month under the chairmanship of the Executive Vice President in charge of Human Resources and Corporate Social Responsibility. It brings together the Directors of the HR support functions, in particular the Director of Social Affairs and the Director of Group Talent and Executive Career Management, the main Directors of Human Resources of the regions and the Human Resources Director of the HPS (High Performance Solutions) entity. Regular monitoring of local and global action plans and analysis of key HR indicators are carried out.

Each country implements Saint-Gobain's policies and major commitments (health, safety, diversity, etc.) by adapting the action plans, stages of attainment and tools to the specific features and culture of its region without compromising on the expected performance level. HR policies are disseminated by the global HR network. The local teams have guides to support their deployment, and special training sessions are organized by the HR Academy. Practical guides and training provided by the global support teams are available for the following topics in particular: social dialog, diversity, compensation and benefits, talent management, recruitment and integration, and mobility.

In addition, when companies are acquired, coordination takes place in order to align the HR policies of the new entities with the Group's principles. Newly integrated entities are monitored centrally to ensure that the policies applied correspond to those disseminated by the Group and applied within the network.

In addition to the operational HR performance indicators (see chapter 4, section 4.2.2, p. 137), the success of this policy and the quality of social dialogue are measured each year in a survey of all employees. The proportion of employees responding to the survey, their satisfaction with working conditions, and their confidence in both the strategy and its implementation, are signs of a strong commitment that reinforces the Group's choice of a balance between local and global dimensions. For the past year, the number of employees who responded to the survey was 126,746, representing nearly 84% of the Group's workforce.

A new leadership style based on trust, accountability and collaboration is encouraged, along with new ways of working together. To develop this mindset, managers are provided with training programs, tools to implement new collaborative work methods, and inspiring examples to evolve with their teams (see section 3.2.3, p. 95 in this chapter).

The employee satisfaction survey carried out each year (see section B of this chapter) has enabled us to measure progress in employees' perception of this new leadership style (recommendation rate increased from 85% to 86% between 2021 and 2022). 80% of Group employees feel involved in setting their objectives, 81% have confidence in management and 87% recognize that their manager promotes teamwork and collaboration.

Saint-Gobain also submits its human resources practices each year to the Top Employers Institute, an independent organization that evaluates human resources and ethical performance on the basis of an evaluation questionnaire followed by audits of practices. This is the eighth year in a row that the Group has been ranked among the 15 companies recognized worldwide. Saint-Gobain is also recognized as a Top Employer locally in 40 countries, corresponding to more than 89% of employees.

B – Social dialog

Saint-Gobain has made the quality of social dialog an essential criterion for the performance of its HR policy. The principle of consultation and negotiation, either directly with employees or through their representatives, is universal, with the aim of translating this dialog into collective agreements. Freedom of association is one of the values embedded in the Group's code of ethics and respect for it is a prerequisite for quality social dialog.

Because social dialog must provide concrete answers to the questions of working conditions, the specific expectations of employees, and the deployment of HR action plans, it is mainly carried out at local level in accordance with Saint-Gobain's HR policy (see this chapter, section 3.2.2, p. 91). Executives in each country meet with employee representatives periodically to discuss strategy and local issues. As such, more than 3,000 agreements signed with employee representative bodies are active, of which 25.9% include criteria related to employee health and safety.

The various discussions held locally have made it possible – in some subsidiaries – to develop work flexibility, in particular to meet employees' demands for a better balance between their personal and professional life and their family needs.

Even though Saint-Gobain encourages social dialog at a local level, Group coordination exists. So the Chief Executive Officer of Saint-Gobain meets with the central union coordinators several times a year and chairs the Works Council at least twice a year. At the European level, he chairs the Convention for social dialog, which brings together 70 union representatives from 28 European countries annually. With the aid of an independent expert, this Convention makes it possible to supplement the national dialog by dealing with subjects of common interest such as safety, Corporate Social Responsibility or the trend of employment on European industrial sites. These subjects are raised in particular by the members of the Select Committee, which acts as spokesman for the Convention, who benefit from specific training to perform their role and met by the Director of Social Affairs at least four times a year.

Listening to employees is essential to the success of social dialogue. The employee satisfaction survey conducted in 2022 (see this chapter, section 3.2.3, p. 97) shows that 86% of respondents consider their working conditions to be good and 82% that the balance between personal and professional life was satisfactory.

In an uncertain economic context, the Group is committed, as far as possible, to implementing solutions to safeguard employment and only to making job cuts as a last resort. The aim is initially to reorganize to deal with situations on a temporary basis, as in the case of temporary lay-off, or to favor internal mobility agreements which, associated with incentive measures, make it possible to maintain jobs within Saint-Gobain. When restructuring is inevitable, the employees affected by workforce adjustments benefit from personalized support programs which may result in training associated with retraining, assistance for geographic mobility or support for the execution of a personal project, such as the creation of a business.

When companies are acquired, coordination is set up to align the HR policy of the new entities with the Group's principles.

C – Diversity and inclusion

Diversifying its teams ensures that Saint-Gobain is in tune with the world around it and understand its challenges, to be enriched by different skills and experience, while developing its capacity to innovate. To meet its diversity and inclusion targets, the Group is working to create an environment conducive to fairness and equality, crucial to employees' professional growth, while fostering training and the cohesion of high-performance operational teams. The main drivers of this strategy are managers leading by example and the policy of equal treatment in the fields of recruitment, vocational training and compensation. Everywhere it operates, Saint-Gobain undertakes to promote inclusion and diversity in all its forms: gender, nationalities, training, career paths, generational diversity, disabilities and ethnic and social origins.

The Group is strongly committed to the themes of diversity and inclusion, which are one of its priority CSR challenges (see this chapter, section 3.2.1, p. 89). The requirements to be followed are defined at the global level, while action plans to support this vision are rolled out locally. An overall diversity indicator incorporating diversity of gender, nationality and professional experience is monitored annually. It is a performance component of Saint-Gobain's long-term compensation plans for managers (see chapter 5, section 5.2.4, p. 216). The Group is committed to maintaining a diversity index always above 90%, which is the case in 2022 with a diversity index of 91.8%.

The increase in the gender diversity of teams is based on a voluntarist recruitment policy and on action plans for occupational promotion, equal pay, training and work/life balance.

Objectives related to gender diversity have been set: 30% female managers in 2025 (target of 25% reached in 2020) and 25% female senior executives in 2025. They are monitored each quarter by the Executive Committee. They have been developed by country and Business Units and are integrated into the performance criteria that determine the annual variable compensation of senior executives. At Group level, each monthly meeting of the Human Resources Committee has a Section dedicated to women with the aim of boosting career opportunities.

These objectives were strengthened in 2020 to promote the access of women to the management bodies of Saint-Gobain:

- 30% of women in the Group Executive Committee in 2025;
- an average of 30% of women in the Executive Committees of Business Units in 2025.

In terms of training, an e-learning document on awareness of gender diversity issues, entitled Gender Balance Awareness, has been drawn up in several languages and circulated to the human resources and management teams. This program was updated at the end of 2020 under a new e-learning format called Unconscious Bias.

In 2020, Saint-Gobain launched a program to use Big Data to identify differences in the situation between women and men in the Group's organizational structure. In addition to the quantitative indicators available in non-financial reporting, the aim is to identify underlying stereotypes that hinder the integration of women into management bodies or create systematic gaps in the situation. In accordance with the human resources policy (see this chapter, section 3.2.2, p. 91), each country has implemented an action plan.

Finally, in 2020, the parenting component of the social protection program mentioned earlier, CARE by Saint-Gobain (see this chapter, section 3.2.3, p. 94), was rolled out in all countries where the Group operates, with a guarantee of at least 14 weeks of maternity leave at full pay.

A systematic evaluation of the pay gap between women and men in equal positions is carried out. The ratios on the average pay gap of Group employees are measured and published in chapter 4, section 4.2.2, p. 137. In 2022, the proportion of women managers rose from 26.3% to 27.4%. The Executive Committee consists of 37.5% women members (six women out of 16 in 2021, compared with four out of 16 in 2020 and four out of 17 in 2019). In 2022, Saint-Gobain was included in the Bloomberg Gender Equality Index for the fifth consecutive year, a recognized index in the area of diversity and inclusion.

Saint-Gobain is a signatory to the Women's Empowerment Principles (WEPs) since 2021, confirming its commitment to gender equality. Defined by the United Nations Global Compact, the WEPs are a set of principles that aim to help companies to promote gender equality and women's empowerment in the workplace.

Likewise, insertion and retention of people with disabilities are important subjects for Saint-Gobain. First of all, disability awareness and training initiatives are in place in the various countries. Several subsidiaries offer workshops in partnership with specialized bodies. The Group also implements recruitment policies in partnership with various specialist agencies, applying a strict non-discrimination policy. For example, in France, several entities are in contact with ESATs (bodies promoting the inclusion of people with disabilities in society and the workplace) to support them in their efforts. One of Saint-Gobain's objectives is to make everyday life easier for employees with disabilities by adapting workstations and hours. In the United Kingdom, Ireland and North America, personal support is in place to adapt working environments to individual needs.

In terms of diversity and inclusion, Saint-Gobain's approach remains similar to that used to deploy the Group's HR policy: common values, policies and objectives, deployed by each country according to cultures and situations.

Thus, each region or country establishes a diagnosis which then enables it to set priorities and local plans. Potential types of discrimination are identified, and appropriate programs are put into place. Gender, disability, and ethnic and social origins are taken into consideration in the diagnosis.

To encourage pluridisciplinarity and diversity of nationalities, the emphasis is on the valuing of diverse career paths in the areas of expertise (marketing, research and development, etc.) and on equal opportunities for local profiles. In terms of generational diversity, Saint-Gobain ensures that the age pyramid of its employees is balanced, giving young people as well as older employees their full place. Particular attention is paid to integration programs for young people.

Programs to educate teams about difference and training programs to avoid unconscious bias when recruiting are also deployed.

For example, since 2019, the Latin America region has developed a program called "diversity and inclusion" that incorporates gender mix, ethnic origins (especially vulnerable populations), disability, and social and economic inclusion. A communication campaign has accompanied the approach on the theme "with respect, we understand each other".

In North America, the focus is on raising awareness among HR teams and writing inclusive job descriptions to promote diversity in recruitment. Partnerships, networks and mentoring programs are deployed.

In India, mentoring programs for the inclusion of women and a women's network are active.

3.2.3 ATTRACTIVITY AND TALENT RETENTION

A – Wage policy and employee benefits

Wage policies are set by the countries in line with market conditions. In most of the countries in which Saint-Gobain operates, minimum wages are set either within the legal framework or by negotiating collective bargaining agreements. In 2021, under 3% of employees were not covered by one of these provisions. The Group favors the collective bargaining strategy which is a way of guaranteeing a minimum standard of living for all employees depending on the local situation.

A general framework called the Framework for wages sets out common rules and principles to ensure fair compensation for Saint-Gobain employees. It has been circulated within the HR network and is published on the Group's website.

In 2022, Saint-Gobain conducted a country survey to better identify the actions taken to ensure a decent wage, but also complementary elements to compensation such as individual and collective bonuses or social benefits. Under 3% of employees are paid only the legal or negotiated minimum wage. Almost 68% of full-time employees have an individual or group bonus program.

The survey also verified that over 99% of employees receive retirement benefits under locally defined programs.

At the same time, employee shareholding offers employees the option to become shareholders under preferential conditions, either directly as individuals or via involvement in a dedicated collective fund. The Group Savings Plan (PEG) enables them to acquire Saint-Gobain shares at a discount and, in some countries, an additional amount. In France, to encourage a team spirit and to associate each person with the success of the Group, Saint-Gobain favors the conclusion of collective incentive agreements. In 2022, employee shareholding programs were available in 53 countries. 96.6% of Saint-Gobain employees have access to these programs, and in some countries, retirees are also eligible. In addition to these programs, Saint-Gobain has set up long-term compensation plans including, depending on the year, stock options, performance shares and performance units (see chapter 5, section 5.2.4, p. 209).

Saint-Gobain also seeks to offer its employees social guarantees enabling them to protect themselves against the uncertainties of life. Launched on January 1, 2020, CARE by Saint-Gobain is a social protection program for all Group employees and their families. The coverage is defined to meet basic daily healthcare needs but also to support key moments of family life:

- Daily medical monitoring of families and access to care, by covering health costs (doctor visits or hospitalization) at a rate of at least 80%;
- The birth of a child, including adoption procedures, by paying at least 14 weeks of maternity leave with full pay and three days of paternity leave with full pay;
- Fatality, by providing the family with financial capital representing at least one year of the employee's salary.

The program is being implemented on a country-by-country basis, with the aim of being applied worldwide and for all employees by early 2023. Parenthood measures were rolled out in 2020, and all Saint-Gobain employees currently enjoy minimum guaranteed parental leave at their full salaries. Monitoring of the program's deployment is available in chapter 4, section 4.2.2, p. 137.

B – Well-being at work

Saint-Gobain attaches fundamental importance to physical health (see this chapter, section 3.1.3, p. 78) but also to the mental health of its employees, as outlined in the Group's new health policy. The Mental WellBeing (MWB) program was rolled out to all Group managers and concerns all employees. The program takes the form of an interactive app and was designed to clarify the approach to preventing mental health issues and help managers optimize the psychological well-being of their teams. Each manager can build a tailored program for his or her team, monitor it and exchange it with other managers or share relevant best practices drawn from their experience. There are six action areas: management practices, change management, interpersonal environment, physical working environment, work/life balance and personal well-being skills.

This interactive tool is above all aimed at primary prevention practices and proposes best practices, collects those identified by teams worldwide and provides key information so that each team can implement them. Thus, specific programs can be initiated locally by linking specific issues and proposals for concrete actions to improve well-being at work. This concept was designed on the impetus of the Medical and Workplace Health Department and a multicultural working group, with a very diverse range of profiles (HR, EHS, communication, site officers, etc.) and with the involvement of social partners.

This approach is linked to the "human resources" pillar of the WCM excellence program (see this chapter, section 3.1.3, p. 77). It is also embedded in the Saint-Gobain HR process: in the training provided by the school of management, the individual annual reviews for managers' forms, or in the specific questions in the yearly survey to measure employee engagement.

Generally speaking, the Group wishes to create a motivating and engaging work environment, respectful of the work/life balance for all employees. As such, flexible working and working from home are encouraged.

This platform is also a source of information on the general workplace mental health approach in four fundamental stages: training, awareness-raising, assessment, workplace best practices, support for people in hardship and monitoring of indicators and action plans.

This tool does not summarize all the measures put in place to protect and promote the mental health of the Group's employees. It is an inspiring guide to fostering the psychological well-being of employees. It is accompanied by training sessions, webinars, surveys and indicator monitoring, a whistle-blowing system, medical monitoring and individual care.

This individual care can be provided by on-site psychologists, specialized external firms, or the in-house medical teams.

C – Training

Training provided by Saint-Gobain must guarantee the employability and success of all employees throughout their working lives. The objective is to facilitate access to training through processes and offers that correspond to their needs and expectations.

Training is part of the Group's major transformations as it provides support for employees and availability for the skills necessary for the success of operational teams.

The training policy is structured as follows:

- To support cultural transformation and leadership based on trust, empowerment and collaboration, in order to acquire greater operational agility and to promote new ways of working, offering greater efficiency and flexibility. This includes managerial training and talent development;
- Accelerate the digital transformation in operations, business models and skills;
- Foster growth and focus on customers: sales and marketing performance, product innovation, services and business models;
- Ensure efficiency and operational excellence: industrial performance, purchasing and supply chain, EHS, and R&D;
- Deploy mandatory training (compliance, ethics, cybersecurity, etc.) and programs dedicated to Saint-Gobain's major professional sectors (finance, HR, purchasing, marketing, etc.).

After two years during which all global programs were conducted digitally to comply with health regulations related to the health crisis and protect employees, some programs were switched to a hybrid model, i.e., partially face-to-face, particularly for the long-term talent development programs.

The Unicampus programs continued to be updated and enhanced to accelerate skills development in relation to the pillars of the "Grow & Impact" strategic program (see chapter 2, section 2.3.1, p. 57). Training programs on innovation, Agile methodologies, Digital Technology and Data Analytics, and sustainability are now available as well as programs related to the TEC culture, such as "Grow your Impact as a TEC Leader" and "Become a Saint-Gobain Culture Champion to Serve Strategy".

For example, the Group has launched a program called "Climate Academy" to introduce all its employees to the challenges of the climate emergency. Available on the e-learning platform, short modules present both the risks related to climate change and the actions that everyone can take to deal with this challenge.

The annual employee satisfaction survey measures the perceived adequacy of the training offered with the needs for improving skills, the ease of access to the training offer and the personal feeling of being properly trained.

The level of satisfaction measured in 2022 was strong and improved compared with 2021:

- 90% of employees confirm that they are satisfied with their training ("I feel adequately trained to do my work") (2021: 89%);
- 80% of employees are satisfied with the training and development proposals ("I have opportunities for learning and development within my company") (2021: 78%);
- 88% of employees believe they have improved their knowledge and skills ("I feel I have improved my skills and abilities") (2021: 86%).

a. New leadership

The effort to revitalize the School of Management, which supports managers in the major stages of their career within the Group, was stepped up with the launch of the Talent Lab, a new identity for all these programs that is more modern and better reflects the focus on people development as a leader.

These programs are continually reviewed in order to best match the skills required to support and maintain the Group's strategy. They have been redesigned to help participants build trust, empowerment and collaboration in their teams as well as their transformational leadership skills, essential to the Group's sustainable growth. These programs also favor the attraction and retention of talents.

A new 360-evaluation tool with debriefing and coaching has been put in place to assess managers on their TEC behavior. This tool is available to all managers and used in the Talent Lab programs. In addition, the group's 150 top executives underwent this assessment in 2022.

To supplement these programs for talents, digital tools and training programs specific to this new managerial culture have been rolled out at Group and country level for all managers.

b. Digital transformation

In 2020, the support programs for teams and employees were reviewed and reorganized according to Saint-Gobain's targets and transformation objectives:

- Supporting people to better understand new digital tools and improve efficiency;
- The development of tools in operations, in particular the integration of new tools;
- Digital culture, including the Data Analytics Academy program launched to develop and anchor the skills required for data processing and their use in operations, logistics and commercial activities. New Data Analytics programs have been launched to raise awareness among managers and for the Supply Chain function;
- The new Business Models and anticipation of new technologies.

c. Growth and customer focus

The Unicampus program was launched to improve the sharing and circulation of knowledge and know-how throughout the organization. This program uses the camps format to provide training mostly involving the sharing of practices, with a minority component of theoretical conceptualization. This format promotes collaboration, networking and interactive learning methods. It enables the dissemination of a shared culture of operational excellence focused on customer needs and expectations. Thus, training sessions are mainly focused on marketing, sales and service offering to customers (innovation and offers, Sales and Marketing performance, Customer Experience, digital marketing, sustainable construction, etc.) as well as innovation and research and development.

The Unicampus program quickly went virtual. More than 136 sessions during the e-camps were held in 2022, involving more than 2,231 people.

d. Operational excellence

The Unicampus program also offers many trainings about management of technical skills related to the Group's business lines (Gypsum, Insulation, Mortars, etc.) and to industrial excellence (WCM, supply chain…). The "people development" pillar of the WCM program (see this chapter, section 3.1.3, p. 77) helps to identify and monitor key skills.

Training programs organized by technical business line ensure the management and updating of the skills required to offer the customers high-performance, competitive and innovative products and services. These programs are generally developed and implemented by training teams organized by business line: glass, gypsum, insulation, mortars, pipe, etc. The Glass Technical Academy thus incorporated all glass manufacturing training, and also technical glass transformation training for construction and automobile applications. Designed and delivered by around 70 experts, the training sessions provide in-depth technical content, practical exercises and site visits. This constitution of a center of excellence around the businesses enables the transfer of knowledge, sharing of best practices and the alignment of methods within the business lines.

Similarly to manufacturing, training programs are set up for the specific distribution business lines in countries where the Group has sales outlets.

In addition, new programs related to product compliance and the supply chain were launched in 2021.

e. Offering solutions tailored to individual expectations

Programs are designed and implemented to promote adaptation to individual preferences. Combining classroom training, blended training, e-learning modules or camps, they enable the dissemination of the Group's policies and processes and the sharing of best practices. Saint-Gobain University also offers individual development programs such as coaching and mentoring.

D – Employee development

Saint-Gobain's ambition is to grow the skills and know-how of its employees while still ensuring excellence in each of its businesses, but also to be an employer of reference, recognized for the richness of the career paths offered. It involves taking into account individual wishes and the requirements of the organization, offering adapted developing paths, whether individual or collective, specific to one business line or cross-functional. Development of TEC culture (Trust, Empowerment, Collaboration) is an important catalyst for the success of employee development.

a. Listening to employees individually

More individually, Saint-Gobain has introduced an annual interview procedure which makes it possible to ensure the regularity and quality of dialog with employees. Individual interviews are held at least once a year for management and are gradually being expanded to all employees.

Multiple initiatives (trainings, "Evolve" platform, etc.) have been developed to increase feedback practice in the managerial or project management framework.

Finally, the Group has developed, with the help of partners, a 360-degree assessment tool. This tool is available on request to any manager and mandatory before participation in any Talent Lab training courses (Group internal offering of leadership development training courses).

b. Mobility

Every Saint-Gobain employee, no matter what their position in the company, should benefit from career enrichment. Their career path must be a positive marker, so they can feel they are ambassadors for the Group. Promoting and enriching employees' professional mobility, whether geographic, functional or between Saint-Gobain activities, is a priority for accelerating the Group's growth:

- It is an essential way of attracting diversity, innovating, developing the individual and collective skills needed for the organizational and technological requirements of the Group's activities;
- This also enables the sharing of market and customer knowledge, the comparison of different experiences, the development of an open mindset and the enrichment of employees' careers;
- Mobility should reconcile employees' professional development with the business's needs. Offering more career development opportunities builds employee loyalty and intensifies synergies, generating new solutions for customers.

The system deployed by Saint-Gobain to support mobility is based on broad communication of the policy and related actions, including a guide to support HR teams. Global reporting is used to monitor the mobility of managers through an HR Information System dedicated to them.

All employees are invited to consult the job offers that are made and to apply for them. The new online platform "Moov!" (replacing OpenJob) was developed and deployed in countries to meet this need. This platform is accessible on mobile devices for all employees.

In various Saint-Gobain entities, mobility committees bring together human resources managers to share job offers and exchange points of view about employees' development prospects. These mobility committees cover all employees and are reinforced for managers. The management teams also encourage employee mobility and include applications from employees from other activities in their succession plans.

In the event of geographic mobility, the Group offers all employees support for themselves and their families. Finally, within the scope of reorganization projects, Saint-Gobain favors the conclusion of mobility agreements.

c. "SG Talents" program

The "Talent" element of the OPEN program is aimed at all employees to anticipate the Group's needs and support its strategy. It is the subject of a specific annual progress update meeting with the members of the Executive Committee.

The "SG Talents" program identifies managers with significant development potential or key skills. Defined at all levels and in all Group business lines, it enables career plans to be drawn up, encouraging diversified paths. Personal reviews and succession plans, mentoring and relations with the Group's target schools and universities all feed into and reinforce this measure. A specific program has also been designed to support and develop experts within the Group.

As part of the drive to digitize human resources processes, a project using machine learning applied to the "SG Talents" program has been developed. In the first phase, the use of Big Data made it possible to verify that the selection of talents was adapted to the defined criteria and that the paths of the identified talents benefited from additional resources (part of mobility, training, etc.). The second phase is more focused on complementary elements to the program: the search for talent not identified by the traditional process, improving retention or a focus on soft skills research.

Career paths offered to its employees are an asset that Saint-Gobain continues to advertise to students and young graduates to attract the most appropriate talent. In 2022, the Group rolled out its new employer brand promise, notably through its communication: "Innovate for a more sustainable world. Think big, act locally. Bring out the best of your personality. Develop your career through shared trust."

Specific programs for young talent coordinated at the local level are being developed in Germany, Brazil, the United States, India, China and the Nordic countries.

The implementation of the "Transform & Grow" program required a large review of management positions at central and local level. The principles applied in the "Talents" component of the OPEN program identified managers with the most suitable profiles and organized their mobility in a way that has proven to be particularly active.

After the year 2021 that saw the consolidation of the country/cluster organizations (despite the constraints related to Covid-19 and its successive variants), the Group returned to the manager mobility level of previous years.

The definition of "Grow & Impact", the Group's new Strategic Plan (2021–2025), has identified as one of its six priorities, "to have the best teams in a diverse and inclusive work environment".

The definition of the Group's corporate purpose, like the definition of its "zero-carbon" roadmap, is a force of attraction for young talents, who are particularly demanding with regard to the sustainable dimension of Saint-Gobain's activities. They both constitute one of the foundations of the Group's employer promise.

E – Employee satisfaction

Increasing employees' involvement in a context of change, both generational and technological, is an essential challenge for the Group. To meet this challenge, the Group places managerial attitude and involvement at the heart of this approach: managers motivate and develop the loyalty of employees by giving more meaning to their everyday work and by favoring a spirit of initiative.

Since 2019, a unique tool to measure employees' commitment has been developed. It makes it possible to conduct surveys targeted on particular populations and/or themes, for example, specifically listening to managers during the transformation phases. This platform is also used to conduct the annual global survey sent to all employees: me@Saint-Gobain. Employees are asked questions covering the five main focus areas of the HR policy and the current transformation programs:

- Energy: an energizing, collaborative working environment;
- Active: an empowering organization;
- Talent: an HR organization focused on talent development;
- Management: a management style based on influence;
- Inspiration: sharing clear objectives and a factual vision.

With a participation rate of 84% in 2022, 126,746 employees took part. In particular, 86% of them would recommend Saint-Gobain as a good place to work.

The level of commitment measured is even higher despite the particular environment of 2021 and the pandemic.

The engagement rate reached a score of 84%, an improvement of one point compared with the survey conducted in 2021. This index groups the results into four themes:

- Pride in working for Saint-Gobain;
- Short-term retention capacity;
- Recommendation;
- The feeling of being appreciated and valued for their work.

In accordance with the HR organization, each country or Business Unit is able to obtain results for its own scope and is responsible for circulating the results and starting dialog with employees to define action plans to work on areas requiring improvement.

3.2.4 COMMUNITY ENGAGEMENT

The various Saint-Gobain entities, in their respective scopes and in line with their key local issues, are active in sponsorship and philanthropy in the Group's reference markets, and also in areas such as education, research, culture and health. To develop these actions, Saint-Gobain relies on local partnerships, in particular with non-profit organizations and charities.

Saint-Gobain invested €13.4 million in 2022 for philanthropy and sponsorship actions. This involves either direct financial support or donations of materials. Each entity and each country makes its own choices to support projects according to local issues. This takes the form of financial donations, donations of materials, skill-based sponsorship, or volunteer work. All of these actions with a strong local social impact are not systematically reported by the Group at the global level. Only a portion of financial donations and donations of materials is reported. The number of beneficiaries is also only partially assessed. The financial impact does not include skill-based sponsorship or employees' participation in voluntary work during their working hours.

In 2022, Saint-Gobain launched a program called Build Change to federate commitment around two priorities:

- Supporting the youth training in the construction sector;
- Promoting access to decent and sustainable housing.

This program encourages young people, especially the most disadvantaged, to join the construction industry, which in many countries is facing labor shortages.

Similarly, there is a chronic lack of decent housing for the most disadvantaged populations. Improving access to insulated housing also allows these vulnerable populations to reduce their energy bills and improve comfort.

While the Build Change program guides part of the actions, each country undertakes supplementary programs to support vulnerable populations in local communities.

A – A network of actors contributing to inclusive actions

At a central level, the Saint-Gobain International Corporate Foundation is based on employee commitment. All Group employees – both current and retired – can sponsor acts of solidarity in two areas:

- The professional integration of young adults in difficulty;
- The construction, improvement or renovation, in the general interest, of living spaces for people in precarious situations, contributing in particular to reducing energy consumption and preserving the environment.

Projects must be carried out by a non-profit organization and be located near a Saint-Gobain site. The Foundation provides direct financial support to the projects selected, thanks to an annual allocation of €2 million invested in the projects. In addition, employee and retired employee sponsorships help charities access additional partnerships such as donations of materials, access to technical expertise in energy efficiency and other areas, and volunteer work.

Since its creation in 2008, the Foundation has supported 351 projects, including 31 in 2022.

Each country organizes its activities in the most appropriate way according to the local situation. Some, such as the United States or India created local foundations to develop programs to engage employees in philanthropic actions or actions to help vulnerable populations.

Other countries rely on dedicated local teams committed to bringing programs and initiatives to life.

B – Training for the construction sector to accelerate the transition to sustainable construction

a. Train our clients' employees

Training programs for our clients' employees are developed in most countries where Saint-Gobain operates. In France, a complete training catalog, via e-learning or face-to-face, is available for all clients of the Group. The Isover, Placo® and Weber's teams offer programs led by experts trained in teaching methods. Some of the courses are certifiable.

In Brasil, a complete offer regrouping 17 programs is deployed under the form of 285 sessions per year and trained more than 6,000 professionals in 2022.

b. Train a qualified workforce

In North America, the Group has developed a partnership with the NGO YouthBuildUSA to meet a twofold ambition: to provide training in the sustainable housing industry to young people struggling with the school system, all while enabling them to obtain a high school diploma. Since 2011, the Group has been helping to integrate young people into the construction industry and raise their awareness of the sector.

Likewise, Saint-Gobain UK and Ireland supports Barnardo's YouthBuild Academy, which aims to train unemployed young people in building trades at a time when the construction industry is facing labor shortages.

Efforts are being made in South Africa to overcome the shortage of skills in roofing and partition installation through the "Saint-Gobain YouthBuild Academy". This training program, launched in 2003 and financially supported since 2016 by YouthBuild International, aims to share the know-how of Group employees with unemployed youth from disadvantaged communities, through a combination of theoretical courses and the achievement of a local renovation project. The "Saint-Gobain YouthBuild Academy" is the only CETA (Construction Education Training Authority) accredited training provider with accreditation to facilitate the National Certificate: Ceiling & Partition Installation NQF 3. The Group sustainably supports youth employment while contributing to the dynamism of its business sector. Since its creation, about 1,000 people have benefited from this program.

In November 2021, Saint-Gobain in Morocco developed its own academy with the same objective of training young people in the building trades and in particular in the evolution of techniques related to sustainable construction. Qualifying training courses are provided in three training centers.

In France in 2022, Saint-Gobain developed a network of schools to train qualified workers for jobs in the construction sector that are in short supply. The specialized banners have formed partnerships with apprentice training centers (CFA) to develop professional training courses, such as the roofing school for roofers set up by Asturienne, the Builder's school set up by Point.P and the thermal engineering school set up by Cedeo. Training programs are deployed region by region.

Several professional training programs are on offer in India. For example, the Gyproc Academy has trained more than 1,150 young people since its creation in 2013, with a placement rate of over 90%.

C – Actions in favor of education

In addition to programs supported by the Saint-Gobain Foundation, many countries have set up partnerships for youth training.

In France, Saint-Gobain inaugurated an apprenticeship training center (CFA) in 2020, called "Generation Saint-Gobain". This center offers training courses focused on jobs in short supply, industrial maintenance, and sales and marketing. In 2022, a supply-chain management certifying training course was successfully carried out.

In India, the Saint-Gobain India Foundation supports more than 9,500 young girls in targeted education programs. Saint-Gobain has also developed programs to accompany young people from rural areas.

D – Actions in favor of decent and sustainable housing

In 2023, nearly 35 projects in favor of access to decent and sustainable housing in over 15 countries were conducted. These actions are often carried out in collaboration with non-profit organizations operating in the same regions.

Partnerships with Habitat for Humanity have been established in many countries in Latin America, such as Argentina and Brazil, and in Europe, such as Poland.

E – Other actions in favor of communities

In emergency situations, Saint-Gobain's local teams mobilize to support the populations affected. In 2022, for example, Saint-Gobain teams in Poland took action to welcome Ukrainian refugees. Families were taken in and are still being supported. A foundation has been set up to provide financial assistance to the refugees and to help them with the administrative process. Finally, psychological support is available to employees in Poland to help them cope with this situation.

3.3 A DECARBONATED HOME

3.3.1 GOVERNANCE AND STRATEGY

Faced with the challenge of climate change and the risks related to the increase in average temperatures, Saint-Gobain aims to promote the emergence of a sustainable and just economy in line with the Paris Agreement. In concrete terms, the objective is to help the Group's customers reduce their carbon emissions through the use of its solutions, and to reduce the carbon impact of its operations across the entire value chain.

In September 2019, Saint-Gobain responded to a call for action issued by a broad coalition of business leaders, civil society representatives and United Nations leaders to help limit the rise in global temperature to 1.5°C above pre-industrial levels.

A - Governance

BOARD OF DIRECTORS

The role of the **Board of Directors** is to determine Saint-Gobain's strategy and to follow up on its implementation, as well as to monitor its proper management.

All Directors were trained in climate risks by experts (see chapter 5, section 1.2.4). Climate change issues are monitored on a regular basis by the Board of Directors.

CORPORATE SOCIAL RESPONSIBILITY COMMITTEE OF THE BOARD OF DIRECTORS

The **CSR Committee** ensures that corporate social responsibility issues are taken into account in the definition of Saint-Gobain's strategy and its implementation (see chapter 5, section 5.1.2 for a description of the responsibilities and activities of the Corporate Social Responsibility Committee in 2022).

Finally, as the Group considers climate change to be a strategic issue, the reduction of CO_2 emissions is a performance criterion included in long-term compensation plans (see chapter 5, section 5.2.4).

"CARBON 2030" ROADMAP

The "**Carbon Roadmap 2030**" working group is a response to Saint-Gobain's commitment to contribute to "net zero emissions", by 2050. As a result, Saint-Gobain will reduce its CO_2 emissions as much as possible by 2050 and implement measures to absorb any residual emissions.

The success of the "net zero emissions" ambition is based on the 2030 targets validated by the Science Based Target initiative and on several action levers. This working group is led by the Sustainable Development Department.

At Group level:

- the **Strategy Department** supports Saint-Gobain's ambition to be a leader in sustainability by integrating sustainable development as a key focus of the Group's growth and differentiation strategy. It monitors and implements the internal carbon price, including its regular updates;
- the **Innovation Department** coordinates the innovation efforts in both industrial and product design-related processes;
- the **Industrial Technology and Performance-Department** oversees the coordination of industrial excellence programs, including the "World Class Manufacturing" (WCM) and CapEx commitments;
- lthe **Purchasing Department** ensures the mobilization of suppliers by integrating their performance in terms of sustainable development and the signature of the Saint-Gobain "Responsible Purchasing" charter as selection criteria.

Business Units and countries contribute to the carbon neutrality target:

- roadmaps are developed by the countries or Business Units to define their short- and medium-term priorities and objectives in line with Saint-Gobain's, and to draw up their own action plans;
- detailed roadmaps are developed for each industrial process and supplemented by action plans designed and deployed by each country based on knowledge of local markets and regulatory contexts;
- each site defines its own roadmap for the WCM program, in line with international reference frameworks, standards specific to its business required by customers and the improvement objectives that have been set. Each industrial department and each business unit is responsible for defining, leading and monitoring the results of the sites within its scope.

The Group has implemented its CO_2 roadmap to contribute to carbon neutrality by 2050. This approach incorporates its targets for 2030, validated by the Science-Based Targets initiative (SBTi), which considers them to be aligned with Saint-Gobain's net-zero carbon commitment:

- 33% reduction in CO_2 emissions (scope 1+2), in absolute terms, between 2017 and 2030;
- 16% reduction in CO_2 emissions in scope 3, in absolute terms, between 2017 and 2030.

EXECUTIVE COMMITTEE

The **Executive Committee** is responsible for managing the Group. It makes strategic decisions according to the guidelines defined by the Board of Directors and under the chairmanship of the Chief Executive Officer. The issue of climate change is monitored on a regular basis by the Executive Committee, which holds meetings on these subjects.

CORPORATE SOCIAL RESPONSIBILITY COMMITTEE OF THE EXECUTIVE COMMITTEE

The Corporate Social Responsibility Committee was created on July 1, 2021. Its role is to craft strategies in line with the Group's CSR commitments and objectives, taking into account the growing demands of stakeholders, and to monitor improvements in terms of ESG (environment, social and governance) performance. Climate change is one of the topics monitored by the Committee.

The **Senior Vice-President, Human Resources and Corporate Social Responsibility** is in charge of corporate social responsibility.

She coordinates the monitoring of climate objectives as part of the CSR roadmap.

The **Corporate Social Responsibility Department** coordinates – with the Sustainable Development Department – the monitoring of climate perfomance and objectives. The fight against climate change is one of the pillars of the CSR roadmap.

The **Sustainable Development Department** oversees the management of climate-related issues, which represent both a risk and an opportunity or the Group.

SUSTAINABLE SOLUTIONS FOR GROWTH

The **Sustainable Solutions for Growth** working group supports the Group's strategy to move from a product-based offer to a sustainable solutions-based offer, which would be more efficient and adapted to its markets. This group focuses on identifying proposals for solutions that combine sustainability and performance and to measure the benefits for stakeholders, in particular customers. It is also in charge of determining and deploying a standardized method of benefits recognition. This working group is led by the Strategy Department.

At Group level:

- the **Marketing and Development Department** facilitates and accelerates Saint-Gobain's innovation process, based on meeting customer expectations. Teams specializing in innovation and management ensure consistency and relevance of use cases. Teams specializing in sustainable construction ensure the coordination of the measurement of estimated benefits;
- the **CSR Department** ensures that the solutions proposed by the Group are in line with the objectives and action plans in operational terms. It also manages the performance follow-up.

At Business Units and countries level:

- tools and information are made available to countries to guide them in developing a strategy adapted to their market context;
- discussions between the marketing and sales teams enable the identification of cross-functional issues for which Saint-Gobain can provide innovative and competitive responses using local and global synergies.

RISK MANAGEMENT

The **Risk Management** working group is responsible for identifying, assessing and mitigating potential risks that could impact the Group's business. However, climate has not been identified as a risk factor for Saint-Gobain, as it does not present significant financial materiality for the Group. This working group is led by the Sustainable Development Department.

At Group level:

- the **Strategy Department** oversees the development of climate scenarios, thus integrating climate risk management into the Group's medium- and long-term strategy
- the **Audit and Internal Control Department** develops and updates the methodology for managing climate risk, updates physical risk maps and conducts climate audits;
- the **Risk and Insurance Department** defines the Group's policy on the prevention and insurance of climate risks;
- the **CSR Department** ensures the consistency of risk assessments in accordance with the regulatory requirements of the Non Financial Reporting Directive (NFRD) and its transposition into French law, and other transparency requirements expressed by stakeholders, in particular the communication according to the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD).

The Business Units and Countries are included in the risk identification and management process. A digital mapping tool is available to help them identify their risk exposure and prioritize their action plans.

B – Strategy

Construction accounts for more than 40% of annual CO_2 emissions worldwide. Two-thirds of the sector's carbon impact comes from the operation of buildings, while the remaining one-third comes from the emissions contained in building products. The transition of the construction sector towards carbon neutrality is therefore essential in the fight against climate change (see in chapter 2, section 3.1.3, p. 43).

Saint-Gobain can help reduce the negative impact of the construction sector. The Group is focusing its action plans around the following areas:

- Offering solutions that provide benefits during the use of buildings (see in this chapter, section 3.1.4, p. 84): the design, production and distribution of high-performance solutions with a positive contribution to the environment, i.e., solutions that promote energy efficiency and reduce CO_2 emissions during the use phase of buildings. It is through innovation and the evaluation of the performance of solutions (see section 3.3.2, p. 112 in this chapter) that the Group is able to increase CO_2 emissions avoidance and adapt its offer to new opportunities, linked to a fairer, more sustainable transition on a trajectory compatible with the Paris Agreement;
- The offer of low-carbon solutions by reducing emissions in its operations (scopes 1 and 2) and emissions linked to its value chain (scope 3): the "carbon 2030" roadmap represents the Group's action plan to achieve the CO_2 emission reduction targets validated by the SBTi on the road to global carbon neutrality by 2050.

Saint-Gobain's objective is to contribute to a FAIR and sustainable transition towards a low-carbon economy. The implementation and results of this strategy are integrated into scenarios that limit global warming to below a 1.5°C rise, so that they are aligned with the Paris Agreement.

In the face of climate risks, taking action as closely as possible to the regions (countries, regions, etc.) makes it possible to rely on resilient local ecosystems that are more favorable to the development of a "low-carbon" economy. The ability to initiate local partnerships is an asset in risk management.

In addition, Saint-Gobain's organizational structure is based on a unique combination of local and global, which makes it possible to benefit from new opportunities that meet local needs while being part of global dynamics, especially in terms of energy-efficient building renovation and the development of lightweight construction (see chapter 2, section 2.2, p. 56).

The fight against climate change requires the cooperation of all stakeholders – in particular states, businesses and civil society – around a demanding international framework.

a. Analysis of climate scenarios for 2050

For strategic planning purposes, Saint-Gobain has built three qualitative climate scenarios that incorporate political, technological, economic and societal assumptions. Each scenario is associated with an increase in average temperature of between 1.5°C and 4.5°C before the end of the century. These scenarios help Business Units and the countries in which the Group operates to anticipate the impacts of climate change on their markets and their activities.

Indicators		*Wind of Change*	*The Show Might Go On*	*Highway to Climate Hell*
GENERAL CONTEXT				
Increased temperatures in 2100 compared with the pre-industrial era (1850-1900)		1.5-1.7°C	2.1-3°C	4.0-4.5°C
Peak global carbon dioxide emissions		Around 2020	Mid-2030	Around 2100
Achievement of the "Global zero carbon" objective		Mid-2050	After 2100	Not in the near future
International cooperation model		Multilateralism and cooperation	Digital arms race, lack of cooperation	Regional and isolationism rivalry
MACROECONOMIC FRAMEWORK				
Global population (2019 = 7.7 billion)		9.7 billion	9.7 billion	9.7 billion
Urbanization rate (2019 = 56%)		68%	68%	68%
CONSTRUCTION NEEDS				
Sea-level rise (compared with 1986–2005)		+0.4 meters	+0.5 meters	+0.6 meters
Average length of drought periods		9 to 11 months	18 months	22 months
Number of tropical nights (compared with 1981–2000)		>16 days	>28 days	>53 days
MOBILITY				
% of electric cars in the vehicle fleet in 2050 (2019 = 8%)		80%	60%	45%
Annual vehicle sales (market growth in 2026 compared with 2018)	In developed economies	-6%	-6%	-6%
	In Asia	+22%	+22%	+22%
	In total	**+9%**	**+9%**	**+9%**

Wind of Change scenario	
SUSTAINABLE CITY	
Model of existing city	Amsterdam, Valencia
Size	Medium-sized city – generally between 750,000 and 3 million inhabitants. The city center is dense.
Mobility	Well-established public transit system, increasing investments in active modes of mobility (walking, cycling) and shared roads.

METHOD OF CONSTRUCTION

- Buildings are generally collective buildings built around 2018 in accordance with the latest environmental regulations.
- Household appliances are shared and efficient while excess heat is shared between connected buildings.
- Apartments are easy to reconfigure and refurbish to optimize space.
- Builders favor natural lighting, passive cooling and solar protection.
- To improve their resilience, the buildings are equipped with green walls and roofs, wastewater and rainwater harvesting systems, reflective materials, and the foundations are adapted to remove clays.
- The use of bio-sourced, reused and recycled materials is becoming widespread to mitigate the effects of climate change. Likewise, energy self-production, waste sorting and composting systems are installed: innovations are thus used to optimize energy efficiency.
- The installation of smart meters and sensors makes it possible to monitor consumption and automatically regulate lighting, ventilation, cooling and heating.

The Show Might Go On scenario

SUSTAINABLE CITY	
Model of existing city	Nairobi, Buenos Aires, Beijing and some other Chinese cities
Size	Rapid growth due to intensive industrialization
Mobility	Public transit does not cover the entire city and does not make it possible to optimize travel. Most people continue to travel by car.

METHOD OF CONSTRUCTION

- Two models emerge: firstly, the European model, and secondly, the US model.
- In Europe, the majority of the population lives in office buildings built in 2000 and converted into residential buildings in 2030. The individual apartments are small, but benefit from large shared spaces (workspaces, fitness, high-tech kitchens). A centralized monitoring system automatically adapts heat, lighting, ventilation and cooling. Shared appliances in kitchens and laundry rooms are very efficient and use little energy. The roof is equipped with photovoltaic panels and the insulation has been reinforced with recycled materials.
- In the United States, the majority of the population lives in apartment buildings and private condominiums in the suburbs of a large city, in buildings dating from the 1970s. Only a minority of individual apartments have been renovated. Energy consumption is not systematically monitored. However, installations have been put in place to mitigate the effects of climate change on the comfort of residents: the insulation of the walls and roof has been improved and double-glazed windows have been installed. Most devices are programmable, but none are shared.

Highway to Climate Hell scenario

SUSTAINABLE CITY	
Model of existing city	London, Rio de Janeiro, some US cities, Lagos, Lima, New Cairo
Size	These immense cities occupy a vast territory and are home to 3 to 5 million inhabitants. In less developed countries, these growing cities are surrounded by large slums.
Mobility	The majority of the population lives in the suburbs, and driving is the most used mode of transportation thanks to the extent of the road network.

METHOD OF CONSTRUCTION

Subsidized, affordable but low-quality housing is built to contain the endless expansion of slums in emerging countries. Poor quality is often accompanied by raised living spaces, a lack of daylight, thermal discomfort, high levels of noise pollution and inadequate ventilation of fresh air. Basic insulation solutions are still incompatible with the affordability required for such “slum sanitation” approaches. Implementation of cooling processes as the only response to global warming. Access to basic services (wastewater, drinking water, electricity, sanitation, waste disposal) is an important step towards achieving the fundamental objectives of human development. Recycling, reuse and the circular economy can only be considered when these basic services have been fully realized.

b. The 2050 vision

The “2050 net-zero emissions” contribution program

In addition to the programs initiated at site level, reducing the carbon footprint of production and thus the impact of the products requires three major strategies:

- Innovation and R&D programs to coordinate and expand efforts to improve manufacturing processes, reduce energy consumption and ensure the transition towards the use of decarbonized energies;
- Scope 3 control to identify the main emissions factors and mitigate the overall impact of the products;
- Management tools and financial resources to accelerate the transition to low-carbon technologies and a budget of 100 million euros per year by 2030.

In 2020, and in accordance with the Group’s commitment to contribute to carbon neutrality by 2050, Saint-Gobain published a roadmap with an action plan and intermediate targets for the end of 2030 (see section 4.2.1, p. 134).

An internal carbon price to speed up the transition to low-carbon technologies

Setting an internal carbon price enables the current or potential impact of a regulatory carbon price on Saint-Gobain’s activities to be assessed, opportunities for growth in low-carbon sectors to be identified, investments in manufacturing and R&D to be refocused, and actions to reduce CO_2 emissions to be ranked. The Group set two levels of internal carbon prices in 2016. The first internal carbon price level per metric ton is applied to industrial investments above a certain threshold, investments associated with a change in energy source, energy investments on an existing or greenfield site with a total annual energy consumption of over 10 GWh. The second carbon price level is used for R&D investment in breakthrough technology. This price level is of demonstrable value in supporting low-carbon R&D projects.

Following the November 2020 publication of the 2030 roadmap, an update of the price levels was made in October 2021. The price level applicable to investments is €75 per metric ton of CO_2 and the level applicable to R&D projects is €150 per metric ton. In addition, a specific approach applicable to significant acquisitions has been defined. It includes any effort required to ensure that the carbon impact of this acquisition is compatible with Saint-Gobain’s direct and indirect emissions target trajectory.

Under the European Union Emissions Trading Scheme (EU ETS), the rules defining the free allocation of carbon allowances from 2021 have been redefined.

At the end of 2022, the Saint-Gobain Group had a stock of 4.4 million tonnes of greenhouse gas emission allowances allocated by the European Community. The Group therefore considers that it will remain self-sufficient in allowances in the medium term.

Innovate to optimize industrial processes and promote the use of decarbonized energies

In the short term, the actions performed involve the reduction of energy consumption and, in the medium and long term, the transition to the use of decarbonized energy, in particular the transition to the use of green electricity. The WCM program (see this chapter, section 3.1.3, p. 77) and the “energy” and “CO_2” action plans for continuing improvement (see section 3.3.3, p. 113) provide structure for the action plans.

Short- and medium-term actions also include investments in optimization and energy efficiency processes. Pragmatically, Saint-Gobain identifies and analyzes projects for which rapid gains can be measured. The analysis also takes into account the impact on competitiveness and applies the rules related to the introduction of the internal carbon price. For example, the Group promotes the installation of energy and heat recovery systems. These low-carbon solutions can address each of the impacts of industrial production: raw materials, energy use, energy efficiency and energy recovery, and carbon capture and recovery.

Regarding energy, processes that are technically adaptable to the exclusive use of electrical energy have been identified. For these processes, the transition is facilitated by the development of local renewable electricity grids and the growing share of decarbonized electricity in national grids. Energy buyers have therefore been involved in identifying reliable and competitive sources of green electricity in the countries in which Saint-Gobain operates. This transition to the use of decarbonized energies takes the form of investments such as in solar and wind farms, through the installation of solar panels on our sites or the use of market mechanisms such as green certificates or Power Purchase Agreements (PPAs). In the case of India, all these commitments together generated a total of about 60 GWh of renewable electricity in 2022. At Group level, the share of decarbonized electricity [1] in electricity consumption reached 52% in 2022.

For processes for which the adaptation to the use of electrical energy is technically more complex, two axes of innovation are then deployed: one on the development of decarbonized energies (biogas, biomethane or hydrogen for example); and the other, to develop processes and make them compatible with an increasing use of green electricity.

Overall, innovation is a lever used by the Group to reduce the impact of its activities (see in this chapter, section 3.1.4, p. 84).

Saint-Gobain also wants to develop zero-emission productions for scope 1 and 2 as quickly as possible. For example, in May 2021 the Group announced an investment of €25 million in its plasterboard plant at Fredrikstad, Norway, to increase its production capacity by around 40% and transform its plant into the first zero-carbon emissions production site in scope 1 and 2 in the world. Saint-Gobain receives a grant from the Norwegian government agency Enova; the new facilities will be operational in 2023. In June 2022, Saint-Gobain announced that it is investing in a second zero emission scope 1 and 2 production plant near Montreal, Canada. After an investment of approximately CAD 90 million, this site will be operational in 2024.

At the same time, the Group has continued its efforts to develop “net-zero carbon” industrial process pilots (scope 1 and 2). For example, Saint-Gobain has become the first manufacturer to produce flat glass in a low-carbon way in Aniche (France). This technical feat was achieved by using 100% recycled glass and 100% energy produced from biogas and decarbonized electricity.

To support this effort towards industrial processes contributing to carbon neutrality, a budget of €100 million per year has been allocated to CAPEX and research and development investments for the next ten years. In 2022, Saint-Gobain has invested over €191 million to support its 2030 roadmap.

c. Collaboration with stakeholders

Strong commitments to the climate

Saint-Gobain supports the implementation of ambitious political frameworks to remove technical and financial obstacles and accelerate the transition to a low-carbon economy. The recovery plans initiated by governments following the Covid-19 crisis are an opportunity to combine the fight against climate change with economic development actions through such ways as initiatives that promote building renovation and energy efficiency. Indeed, decarbonization of buildings is essential to achieve the greenhouse gas emission reduction targets that governments have set for themselves.

European regulatory projects related to sustainable finance and in particular taxonomy of sustainable activities are essential instruments for achieving the European Union’s climate objectives, provided that they are guided by scientific criteria and developed in a transparent manner. The Group supports the work of the European Commission and the “sustainable finance” platform to ensure that the ambition developed in the taxonomy and the underlying criteria better reflect the potential and specificities of the business sectors concerned.

Saint-Gobain is fully committed as a non-state actor to the implementation of the Paris Agreement and participates with its partners in the subsequent COP (Conferences of the Parties).

In line with the commitment taken to contributing to carbon neutrality, Saint-Gobain has been involved in the “Race to Zero” initiative since its creation, and in the “We Mean Business” coalition, which now brings together more than 5,000 companies and 1,000 cities.

(1) *Decarbonized electricity = renewable electricity + electricity from nuclear power.*

Saint-Gobain is campaigning for the introduction of a carbon price. This price must allow for a transition that keeps the level playing field between the various companies and countries, in particular through the establishment of a mechanism at the borders of Europe. Saint-Gobain has contributed to several projects on the subject at the European level within the ERT (European Round Table for Industry) and within the AFEP and the *Fabrique de l'Industrie* in France. Saint-Gobain also joined the steering committee of the World Bank's Carbon Pricing Leadership Coalition.

The European Union has a leadership role on climate issues at the global level, which is reflected in the establishment of an ambitious regulatory framework. Saint-Gobain supports the implementation of the "Fit for 55" package, which will lead to an increase in ambition by 2030. As part of the Global Climate Action Agenda, Saint-Gobain is a member of the Alliance of companies for water and climate change. This initiative supports the actions of cities and watersheds involved in the sustainable management of water resources and adaptation to the consequences of climate change.

Actions that support a strong and low-carbon economic growth

Saint-Gobain belongs to the ETC (Energy Transition Commission), a group of about fifty leaders from the energy and climate community. Pierre-André de Chalendar is one of the commissioners. The aim of the ETC is to accelerate the shift towards a low-carbon energy system that enables robust economic growth while limiting global warming to 1.5°C. Because construction is its primary market, the Group is particularly involved in the promotion of sustainable construction and is involved in initiatives to promote energy efficiency.

All over the world, an ambitious political framework makes it possible to remove technical as well as financial obstacles to the transformation of cities and buildings to make them sustainable. For example, this is the case at the European level: Saint-Gobain is a member of various initiatives and coalitions, and in particular has been a member of the LEVEL(S) steering committee since its inception. The committee is an instrument developed by the European Commission in conjunction with the industry and the public sector and aims to establish a "common language" for sustainable construction, in order to take it beyond energy efficiency. In December 2017, the European Commission launched the pilot phase of LEVEL(S), which continued in 2021.

Transforming markets also means changing the entire construction market value chain. The Group forges partnerships with many players who share the same desire to promote more sustainable buildings. In this respect, the Green Building Councils (GBC), a unique global network of national associations of professionals and players in the construction market, are an essential partner. The GBC network offers a fast path for the deployment of sustainable construction technologies and dissemination of best practices, particularly via education for market players. It can create a collective momentum involving the various stakeholders (investors, builders, manufacturers, architects, etc.).

GBCs have a geographical organization that allows each Saint-Gobain entity, at the local, national, and international levels, to actively contribute to their work. The Group is a member of 40 local GBCs worldwide, a partner of the European network of GBCs (ERN), and serves as the vice-chair of the Corporate Advisory Board of the World Green Building Council (WGBC).

Saint-Gobain is committed to orienting the construction industry towards a low-carbon trajectory. This is why Saint-Gobain is a founding member of the Global Alliance for Buildings and Construction (GABC). Saint-Gobain is also a member of the projects steering committee of the World Business Council for Sustainable Development (WBCSD) for cities and buildings. Saint-Gobain is also involved in various initiatives to help cities lead this transition, for example by being a member of the steering committee of the "Zero Carbon Building Accelerator" of the World Resources Institute.

Train customers locally, inform the end user

Some of the training courses delivered by local teams (see in this chapter, section 3.2.3, p. 95) cover energy efficiency and reduction of environmental impact of buildings. The entity "Building Distribution" is particularly active in that area and plays a key role in supporting craftsmen, thereby facilitating the marketing and use of sustainable products. These services set up by distribution help accelerate the transition to a more sustainable construction and reduce the carbon impact of buildings.

In France, the Point.P network has implemented "Energy Efficiency" counters in over 130 branches. Salespeople are specifically trained, and tools such as a simulator to evaluate a project's energy efficiency are made available to customers. A training program on ways to save energy in the construction industry is offered (FeeBat), along with a support mechanism for official recognition of the effectiveness of the steps taken called Renoprim +.

Beyond Building Distribution, training structures are offered by country. They are open to craftsmen, installers, architects and other actors of the building sector. They can also be associated with professional schools. In France, the sales and marketing teams are involved with eight apprenticeship training centers (CFAs) for partnerships for training services or support for trainers specific to the establishment. A website dedicated to training (seformeravecSaint-Gobain.com) offers e-learning or in-person training opportunities. Guides called "*Les essentiels de l'habitat*" allow craftsmen and professionals to train and learn about topics such as energy efficiency or the evolution of tomorrow's norms and standards for sustainable construction.

In Morocco, the Group has developed a Saint-Gobain academy including three training centers with the aim of training more than 3,000 professionals in sustainable construction.

Enhancing employee engagement

Training

In order for employees to be able to commit to the fight against climate change, they must have the necessary keys to fully understand:

- climate-related issues;
- how to assess the impact of Saint-Gobain;
- how to act to reduce its environmental footprint.

Climate Academy is a set of e-learning courses made available to Saint-Gobain employees to inform them about the issues related to the risks of climate change and to help them respond to environmental challenges, regardless of their level of expertise on the subject or their role in the company. The Climate Academy was conceived in two stages. The first one to understand, the impacts and challenges in the format of modules of no more than five minutes. As for the second stage, the Climate Academy presents eight themes describing the various means of acting to protect the environment and to contribute to carbon neutrality in 2050.

An internal carbon fund for employees

To engage all its employees on the road to the contribution to carbon neutrality by 2050, and to contribute to achieving the objective of reducing the Group's CO_2 emissions between now and 2030, in April 2021, Saint-Gobain launched an internal "Carbon Fund". First implemented in a pilot region, Northern Europe, it aims to accelerate the reduction of non-industrial CO_2 emissions through the daily actions of employees and targeted investments in sites. The areas covered by these investments are mainly related to the sustainable mobility of employees, renewable energies and the improvement of comfort and energy efficiency at Saint-Gobain sites. These projects proposed and selected by employees concern their working environment.

3.3.2 RISKS, OPPORTUNITIES AND SOLUTIONS

The challenges related to climate change represent both risks and opportunities for Saint-Gobain. The system for identifying, assessing and managing global and local risks is detailed in Saint-Gobain's response to the CDP climate questionnaire. In this area, the Group follows the principles of due diligence. This process allows us to identify, prevent and mitigate actual and potential negative impacts associated with its business and supply chain, as well as to report on how these impacts are addressed. None of the risks related to climate change is of material financial materiality for the Group in 2022.

A – Risks and opportunities across the value chain

The identification and assessment of risks and opportunities related to climate change is an integral part of Saint-Gobain's global risk management and innovation processes. As such, the Group has identified ten risks and five strategic opportunities related to climate change. Each risk and opportunity affects each segment of the Saint-Gobain's value chain differently, from the extraction of raw materials to their end of life. The tables below show how the opportunities and risks identified by Saint-Gobain impact each stage of the value chain while being part of global market dynamics and meeting consumer expectations. This approach has also been aligned with TCFD recommendations. The identified risks are not of significant financial materiality to the Group.

		IMPACT ON VALUE CHAIN			
TYPE OF RISK	RISK	Extraction and treatment of raw materials	Manufacturing and distribution, in particular of construction materials	Customers' expectations	Other stakeholders' expectations
POLITICAL AND LEGAL	**Increase in the price of GHG emissions**	In Europe, risk of competitiveness with respect to imported materials	Increase in manufacturing and distribution costs	Increasing demand for low-carbon buildings and products	Demand for reduced emissions from products and operations
	Product composition and regulatory changes	Risks associated with the substitution of raw materials currently used	Risks associated with the implementation of new compositions	Demand transparency and choice of more sustainable solutions. Stop purchasing of certain solutions	Demand transparency and orientation towards more sustainable solutions. Reputational risk
	Climate change litigation	Disruption of certain supplies	Disruption of operations	Threat to the company's reputation	Exposure to claims for damages resulting in financial costs
TECHNOLOGICAL	**Substitution of existing products with low-carbon options**	Use of low-carbon raw materials Availability and costs	Integration of low-carbon solutions into the product range. Pace vs. competition and demand	Development of the circular economy Communication expectations for carbon intensity of materials and products	Increased R&D spending to develop low-carbon solutions
	Transition to low-carbon technologies	Fluctuation in project profitability as a function of low-carbon raw material costs	Fluctuation in project profitability as a function of the production cost of low-carbon products	Risk of loss of competitiveness if consumers continue to use high-carbon solutions	Increase in R&D spending needed to develop breakthrough innovations
MARKET	**Increase in the price of raw material and energy**	Rising cost of carbon-intensive raw materials	Increase in production cost	Changing preferences encouraging to use new materials	Increase in R&D spending required to develop extraction methods and search for low-carbon raw materials
REPUTATIONAL	**Perception within civil society**	Risks associated with the retention of extractive practices and usage of fossil energies	Risk of reduced demand for products in the event of negative public opinion	Growing attention and responsiveness to climate change issues	Growing impact of public opinion on investors. Legal risk
ACUTE PHYSICAL	**Increase in the intensity and frequency of extreme events (cyclones, floods)**	Disruptions and delays in the extraction, transportation and delivery of raw materials	Decrease in production capacity due to damage and loss of equipment and buildings	Ensuring the safety of workers throughout the supply chain	Increasing requirements in terms of safety and resilience of structures to limit additional delays and losses
CHRONIC PHYSICAL	**Sea-level rise, increase in average temperatures, change in precipitation regime**	Reduced availability and/or increased cost of raw materials from suppliers exposed to risks of high heat, flooding or lack of water	Increasing exposure of sites to the risk of flooding and high temperatures affecting production costs and energy consumption	Consideration of risk of water shortage at the local level Construction of affordable housing adapted to the physical risks for local populations	Consideration of commitment of companies to at-risk populations Calls for new construction methods adapted to these growing risks

		IMPACT ON VALUE CHAIN			
TYPE OF OPPORTUNITY	OPPORTUNITY	Extraction and treatment of raw materials	Manufacturing and distribution, in particular of construction materials	Customers' expectations	Other stakeholders' expectations
RESOURCE USE	**Recycling and end-of-life management**	Replacement of natural raw materials with recycled materials; treatment of waste to convert them into potential new raw materials	Inclusion of recycled content into products; increased use of recycled material in industrial processes (gypsum, glass)	Increased demand for recycled products	Development of local recycling channels in response to the scarcity of resources
	Reduction of water consumption	Limitation of withdrawals, especially in water-stressed areas	Use of operational methods that consume less water	Inclusion of the water needs of local populations into new construction and renovation projects	Limiting water consumption in buildings to anticipate the risk of water stress
GOODS AND SERVICES	**Development of solutions for climate adaptation, resilience and insurance risks**	The development of low-carbon materials	Development of low-carbon methods to ensure safe and reliable operations	Taking into account local climate specificities in the development of sustainable habitat solutions	Cooperation with local actors to improve the resilience and adaptability of cities in relation to their exposure to physical risks
	Development/ expansion of low-carbon products	Use of low-carbon materials	Designing products that have a low impact on the environment, or even avoid carbon emissions	Increasing demand for low-carbon solutions	Tighter regulations on GHG emissions, supporting investment in low-carbon products research
RESILIENCE	**Participation in renewable energy programs and adoption of energy efficiency measures**	Identification of regular and reliable sources of renewable energy supply	Development of digital tools to adjust energy consumption as closely as possible to needs	Development of solutions that combine habitat comfort and energy efficiency	Increased energy efficiency requirements, encouraged by regulatory changes and public support programs for energy renovation

B – Risk and opportunity management

a. Risks related to climate change

As part of the analysis of its exposure to physical risks and to transition risks and opportunities, Saint-Gobain wanted to identify the potential amplification effects of the first type of risk on the second. The aim of this exercise is to provide the Group with a global and exhaustive view of its exposure to the risks and opportunities associated with the impact of climate change on its business.

Physical risks

The three major physical risks identified on the basis of the sixth IPCC report are the following: increased frequency and/or intensity of potentially destructive events, resource scarcity, and global temperature increase.

The Risk and Insurance Department continuously assesses the risks to which the Group's sites are exposed worldwide and, in particular, the risks related to the effects of climate change (see section 3.3.2, p. 107 and section 6.2.2, p. 231). In 2022, a specific study of physical risks was carried out (see this section). The management of these risks is then reflected in the development and implementation of specific policies supporting Saint-Gobain's environmental commitments, for example in terms of water management and biodiversity (see section 3.1.3, p. 82 and p. 84). In addition, the Group ensures that physical risks are taken into account throughout its value chain. As part of its responsible purchasing program, Saint-Gobain relies on a diversity of suppliers and supply sources to reduce the risk of transportation difficulties and supply chain disruptions (see section 3.1.2, p. 74). Finally, the Purchasing Department considers the risk of an increase in the price of raw materials or of energy and greenhouse gas emissions in its purchasing strategies (see section 6.1, p. 220).

Transition risks

Saint-Gobain is committed to achieving the target of contributing to "net-zero emissions" by 2050. The analysis of physical risk exposure made possible the identification of transitional risks.

POLITICAL AND LEGAL	TECHNOLOGICAL	MARKET	REPUTATIONAL
• Evolution of local regulations (product composition, more sustainable solutions, emission reductions, etc.); • Climate change litigation.	• Availability and cost of raw materials for "low-carbon" products and/or substituted raw materials (in comparison with fossil raw materials); • Increase in R&D costs ("low-carbon" solutions, "low-carbon" raw materials and their extraction, disruptive innovation…) to ensure a transition to low-carbon technologies and solutions.	• Increased price of GHG emissions; Increase in production and distribution costs (e.g., increase in the cost of carbon-intensive raw materials); Competitiveness risk with respect to imported materials (specific risk for Europe); Disruptions in the value chain (supplies, operations, etc.); Risk of loss of competitiveness on new integrated ranges of "low carbon" solutions; Risk of loss of competitiveness if consumers are not interested in "low-carbon" solutions; Risk of loss of profitability on "low-carbon" projects (production and raw material costs).	• Risks related to the continuation of extractive practices and the use of fossil fuels; • Risk of lack of responsiveness, communication and transparency of the Group on climate change issues (all stakeholders); • Changes in consumer preferences regarding the use of new materials.

The Group anticipates the technological risk linked to the substitution of existing products with low-carbon options by investing in the development of disruptive technologies and eco-innovative solutions to meet the expectations of its customers. Two internal carbon prices were set up and increased in 2021 to support the viability of Saint-Gobain's projects and strategy (see section 3.3.1, p. 104).

At the local level, monitoring and compliance programs have been implemented in the countries by the EHS Department, while the Legal Department monitors new environmental regulations (see section 3.1.5, p. 88 and section 6.1.1, p. 220). In addition, the marketing teams ensure that the Group's products comply with local environmental regulations (see section 3.1.4, p. 84).

Similarly, the risks of climate change disputes are assessed as part of the existing risk management process. In addition, Saint-Gobain monitors changes in climate reporting requirements in order to meet the expectations of its stakeholders (see section 3.3.1, p. 105).

What is more, aware of the impact of a bad reputation on environmental matters, the Group fully integrates reputational risk into its risk management policy. Saint-Gobain is demonstrating its commitment to the climate through concrete targets for reducing its CO_2 emissions and energy consumption. Finally, the needs and risks related to access to water for local populations are systematically taken into account in its action plans.

b. Opportunities

Solutions conceived, produced and distributed by Saint-Gobain have a lesser impact on climate change. The physical risk exposure analysis has made it possible to identify opportunities for the Group.

POLITICAL AND LEGAL	TECHNOLOGICAL	MARKET	REPUTATIONAL
• Changes in regulations related to site operations (GHG emissions, energy performance); • Changes in regulations relating to product composition (recycled raw materials and/or low carbon footprint, labelling); • Changes in local regulations to take into account specific regional climatic conditions.	• Development of new materials and construction techniques for better energy efficiency and lower environmental impact; • Development of solutions to reduce dependence on raw materials (process optimization, recycling, waste treatment)	• Increasing demand for recycled and/or low-carbon impact products (changing consumer preferences); • Increasing demand to take into account local climate specificities in the development of more sustainable solutions; • Rising energy prices (e.g., development of more efficient insulation products, tools to adjust energy consumption closer to real needs, etc.).	• Consumers' need for transparency concerning the steps and investments made to reduce the Group's environmental impact; • Investors' need for transparency concerning the steps and investments linked to a reduction in the Group's environmental impact.

Saint-Gobain anticipates the risk of a scarcity of raw materials by actively promoting the transition towards a circular economy (see section 3.4.1, p. 116) and by reducing its consumption (see section 3.1.3, p. 82). The substitution of non-renewable virgin raw materials with renewable or recycled raw materials, the extension of the lifespan or use of our products or systems and the reduction of the intensity of materials are at the heart of the Group's innovation process and enable it to ensure the competitiveness of its solutions while anticipating changes in the preferences of its end consumers and legislation.

Saint-Gobain is also working to optimize and reduce its energy consumption through such means as investing in digital tools to adjust energy consumption as closely as possible to needs (see section 2.3.3, p. 58).

Anticipation of the increase in the cost of high-emission products, which would follow the tightening of regulations and the change in preferences expected by consumers and customers, encourages Saint-Gobain to support the development of low-carbon materials and methods throughout its value chain (see section 2.3.5, p. 64). In addition to its efforts to contribute to carbon neutrality in its operations, the Group promotes renewable energies and develops solutions to improve the energy efficiency of its customers to enable them to meet the climate and environmental challenges they face (see section 2.3.2, p. 64). Moreover, thanks to its strong exposure to the renovation market, the Group is ideally situated to play a decisive role in the national and European "green recovery" plans for the energy transition, which should support Saint-Gobain's structural growth (see section 2.1.2, p. 47).

c. Study of the amplification effects of risks and opportunities according to the climate scenarios

As part of the analysis of its exposure to physical risks and transition risks and opportunities, Saint-Gobain has conducted a study in 2022 to identify the potential amplification effects of transition risks due to the intensity of physical risks. The objective of this exercise is to provide the Group with a global and regional view of its exposure to the risks and opportunities associated with the impact of climate change on its business.

An identification of the evolution of major physical risks – globally and by region – was carried out on the basis of the 6th IPCC report. These physical risks were then linked to the transition risks and opportunities identified by Saint-Gobain and aligned with the TCFD recommendations. For each of them, the potential amplification effect caused by the physical risks was studied and quantified as low, moderate or significant according to three scenarios: SSP1-2.6, SSP2-4.5 and SSP5-8.5.

The three major physical risks identified on the basis of the IPCC report are: increased frequency and/or intensity of potentially destructive events, resource scarcity, and global temperature increase. In the SSP2-4.5 and SSP5-8.5 scenarios, these three physical risks have expected amplification effects on the majority of transition risks in all regions. On the other hand, a particular influence on market risks is observed, such as the increase in production and distribution costs or the disruption of the value chain. This can be explained by various reasons, such as an increase in production costs linked to rising temperatures, which increases the energy requirements for cooling machines.

In terms of opportunities, the positive amplification effects seem to favor political and legal opportunities as well as technological opportunities. Indeed, the global rise in temperatures could accelerate the evolution of regulations related to building insulation, thus favoring demand. In addition, Saint-Gobain's ability to develop construction alternatives that are more energy efficient and have a lower environmental impact could represent an opportunity amplified by the increasing scarcity of certain resources, making it possible to reduce their additional cost.

Saint-Gobain's knowledge of the existence of these amplification effects enables it to include physical risks and transition risks and opportunities in its long-term vision and strategy, thus fully integrating climate change and its impacts into its decision-making.

C – Solutions

a. Designing innovative solutions incorporating "carbon benefits"

Saint-Gobain is innovating to develop solutions to reduce the carbon footprint of buildings throughout their life cycle:

- By reducing their energy consumption during the utilization phase; these are insulation and glazing solutions that improve energy efficiency;
- By reducing the carbon footprint of its products and solutions, particularly by developing lightweight construction solutions, increasing the amount of recycled materials used to manufacture them or by using renewable energy to power its industrial processes.

An online platform called Green Buildings Saint-Gobain enables the Group's customers to evaluate the contribution of its products and solutions to obtaining LEED, BREEAM, WELL or international HQE certifications.

Energy efficiency and reducing the carbon footprint of products are two criteria incorporated into the methodology for evaluating sustainable solutions as part of the program (see section 3.1.4, p. 85).

b. Measuring the "carbon benefits" of products and solutions

The innovative solutions developed by Saint-Gobain to improve the energy efficiency of buildings lessen the negative impacts of the construction sector on the climate and cut occupants' energy bills, while enhancing well-being. They therefore play an important role in the fight against climate change, as they allow through a reduction of energy demand to decrease the quantity of greenhouse gases emitted. Thus, the benefits offered by the Group's thermal insulation products and glazing exceed significantly the impacts associated to their production in terms of energy consumption and greenhouse gas emissions.

After an initial calculation carried out in 2015 at the COP21 conference, Saint-Gobain decided, in 2021, to update and improve the methodology used to calculate the quantity of greenhouse gases avoided thanks to the use of its own solutions, in order to:

- comply with the most recent and recognized international recommendations for the calculation of prevented greenhouse gas emissions;
- extend the geographic coverage of the evaluation.

Saint-Gobain has estimated that nearly 1,300 million metric tons of emissions was avoided thanks to the solutions produced and sold in one year. The updated methodology is available to all stakeholders on the Saint-Gobain website. This calculation has been reviewed by an independent third party.

Saint-Gobain is committed to promoting life cycle assessments (LCA) to better understand and control the environmental impacts of its products. These analyses are useful for guiding innovation, better informing customers and responding to growing market demand for greater transparency. Saint-Gobain is committed to ensuring that, by 2030, 100% of the Group's sales, excluding distribution activities, will be generated by products covered by verified LCAs (life cycle assessments) or EPDs (environmental product declarations). By the end of 2022, 47.9% of sales is generated by products covered by verified LCAs or EPDs, excluding the distribution activity, a significant increase compared to 2021 (29.1%)

This represents more than 1,800 verified EPDs published in more than 36 countries, the Group is positioned as the world's leading provider of verified EPDs – by number – in the construction sector.

c. Co-developing solutions for new markets linked to the low-carbon economy

In response to the challenges of population growth and urbanization, it is imperative to design sustainable solutions and contribute to the construction of resilient cities that ensure the well-being of individuals in a context of resource scarcity and climate change. New lightweight construction methods can be used to meet these challenges. The development of prefabricated solutions or "off-site" construction favors the use of lighter construction methods using wood or metal structures, as alternatives to traditional constructions based on cement and brick. Saint-Gobain is also investing in 3D printing (see section 2.3.3, p. 58).

The transition to a low-carbon economy is also impacting markets related to mobility and energy. Thus, the "Mobility" Business Unit is working both on solutions to support customers in the transition to vehicles that emit less and less CO_2 and on adapting its offer to the development of hybrid or 100% electric vehicles.

3.3.3 TARGETS AND PERFORMANCE MEASUREMENT

Saint-Gobain has set targets and implemented a set of indicators to monitor its climate change performance. The carbon-related targets are detailed in the "Carbon 2030" roadmap. It should be noted that the Group's impact on greenhouse gases is limited to the carbon impact, given that the emissions of greenhouse gases other than CO_2 are not significant with regard to the Group's emissions.

All other objectives and indicators that the Group uses to make progress in mitigating, managing and adapting to climate change issues are presented in a detailed table in chapter 4. The 2030 targets based on 2017 have been validated by the independent organization Science-Based Target initiative (SBTi). Details of the methodology for calculating the indicators and targets are available in chapter 9, section 9.2.1, p. 373.

The classification of Saint-Gobain's activities in the context of the European regulation on sustainable finance and compliance with the European regulation "2020/852 Taxonomy Regulation" (in force since July 2020), the delegated acts to the first two objectives regarding climate change mitigation and adaptation – "Taxonomy Climate Delegated Act (EU) 2021/2139" – as well as the delegated act to Article 8 of Regulation (EU) 2020/852 and its annexes on reporting requirements ("Disclosures Delegated Act") is disclosed in chapter 9, section 9.3.5, p. 389.

The proportion of Saint-Gobain's revenue linked to sustainable solutions is estimated at 73.9% in 2022[2] in line with the target of 75% by 2025. It includes activities that have not been assessed in the context of compliance with the European Taxonomy Regulation 2020/852, such as distribution activities, and impacts and benefits that have not yet been included in the regulation, such as resources and the circular economy, as well as benefits related to health, safety and comfort, which will potentially be eligible for the social taxonomy.

A – 2030 roadmap

Saint-Gobain's CO_2 emissions are evaluated at 9.8 million tonnes for scope 1+2 and 21.3 million tonnes for scope 3 at the end of 2021.

In 2020, SBTi validated Saint-Gobain's 2030 target: 8.4 million tonnes of CO_2 for scope 1+2 in 2030, i.e., a 33% reduction in absolute terms between 2017 and 2030 and a 16% reduction in scope 3 over the same period. By the end of 2022, the group had reduced its emissions by 27% on scope 1 and 2. To achieve these objectives, a 2030 roadmap has been deployed.

The scope 1 and 2 impact of Saint-Gobain's activities is concentrated on three main sources:

- Fossil fuels;
- Emissions from raw materials during the process;
- Electricity.

To reach its 2030 objectives and contribute in the long run to carbon neutrality by 2050, acts on three main levers:

- Transition towards productions contributing to carbon neutrality;
- Consumption of decarbonized energy;
- Evolution of raw material compositions, notably to include more recycled materials.

The success of this roadmap requires the involvement of everyone and a change of mentality. Carbon reduction objectives are included in all operational processes: the WCM program for ongoing productivity efforts, energy purchases that include securing supplies of decarbonized energy (renewable electricity or biogas, for example), and increased use of recycled materials, which implies developing collection channels in all countries.

To ensure the transition towards productions contributing to carbon neutrality, Saint-Gobain relies on its R&D teams to devise industrial processes. Since 2021, programs and demonstrators have been set up in most of the Group's businesses: gypsum, glass and insulation.

Already, the first gypsum plants designed to emit minimum levels of carbon are being invested in Norway and Canada.

A low-carbon flat glass production was also carried out in France in May 2022 without emitting carbon during the production process. Following this successful trial, a "low-carbon" glass offer has been proposed to the market in Europe. This new range, called Oraé, has a low-carbon footprint with a reduction of around 40% compared with the European average.

Each country is responsible for its roadmap. Each year's financial budgets include an assessment of carbon emission reductions based on planned investments. The carbon roadmap is supported by a Capex and R&D investment plan of €100 million per year until 2030. In 2022, 191 million have been invested in capital expenditure and R&D related to the carbon roadmap.

B – The carbon impact of energy

More than three quarters of Saint-Gobain's total energy consumption is directly linked to purchases of fossil fuels. The ability of industrial processes to move from using fossil fuels to decarbonized energy solutions – electricity (when it is low-carbon), biogas, or even hydrogen – is therefore crucial. Action plans have been drawn up between the non-trade purchasing teams in the countries, the Industrial Departments and the local environmental managers, in order to identify regular and reliable sources of renewable energy. The Group is also developing projects on its sites using new energies (wind energy, biomass, biogas, solar energy, etc.). These developments may be made in association with external partners.

(2) *Calculation made using 2020 activity ratios - ratios not updated in 2022.*

C – Control of scope 3

Details of scope 3 emissions by category are available in Saint-Gobain's response to the CDP Climate questionnaire.

The assessment of scope 3 emissions, predictive scenarios to the climate change effects, the measurement and effectiveness of carbon offsetting actions and the methodologies for assessing avoidance are all topics that are still being debated by experts. Saint-Gobain participates in these debates. The Group is also keen to engage in dialog with expert organizations with a view to improving the measurement of impacts in order to make the fight against climate change more effective.

Scope 3 emissions are indirect emissions that are generated in a company's value chain. Given the complexity of the value chains, the assessment of emissions is a challenge and the improvement of data quality is essential in the context of the commitment towards contributing to carbon neutrality in the sector. For this reason, Saint-Gobain's updated scope 3 emissions assessment in 2021 has been accompanied by a more specific assessment of emissions factors and a more granular analysis of impacts on the three most significant categories:

- Purchases of raw materials (category 1);
- Transport and logistics (categories 4 and 9);
- Purchases related to trade activities (category 1).

Thus, in 2021, the Group's scope 3 is estimated at 21.3 Mteq CO_2 compared with the 2017 base used to validate the 2030 targets by SBTi (17.3 Mteq CO_2). Excluding the broader coverage of impacts, scope 3 would be estimated at 16.8 Mteq CO_2 in 2021. Saint-Gobain publishes its emissions by scope 3 emissions category in the CDP Climate.

In line with its commitment to contribute to the carbon neutrality by 2050 and its objective of reducing its scope 3 by 16% by 2030 – validated by SBTi – compared with 2017, the Group will continue its efforts to increase transparency and improve the assessment of impacts on its value chain through the mobilization of its teams and in collaboration with its suppliers.

Saint-Gobain has implemented digital tools to make assessment of scope 3 more reliable. The methods used to assess carbon emissions and integrate emission factors have been the subject of global coordination. The scope 3 program involves suppliers in negotiations conducted by the trade and non-trade purchasing teams.

The objective is to identify common approaches and innovations that Saint-Gobain could support to accelerate their availability.

Five principles are implemented by the purchasing teams and environmental experts:

- A digital tool available to teams at local levels and by categories to enable them to estimate scope 3 emissions;
- Communication kits to share the challenges and targets of the fight against climate change with suppliers;
- The collection of information by suppliers on their emissions on the basis of life cycle analyses verified by independent third parties;
- The integration of the maturity of suppliers regarding their climate commitment into the overall assessment of their performance;
- The creation of joint action plans with suppliers to reduce their carbon impact.

This systematization will continue to make scope 3 assessments more reliable. It also structures action plans to accelerate the reduction of emissions. Best practices have been identified and shared with all Group buyers.

In 2020, the top 200 carbon emitters supplying raw materials were identified. A dialogue is being conducted to assess their short-, medium- and long-term emission reduction plans and targets, which we are compelling them to have validated by SBTi.

Logistics related actions are based on optimizing loads, optimizing routes and reducing the impact of transport methods: use of fuels with low CO_2 emissions, river transport, efficient trucks, for example (see in this chapter, section 3.1.2, p. 75).

3.4 MORE PERFORMANCE WITH LESS

The construction sector accounts for around 40% of global resource consumption.

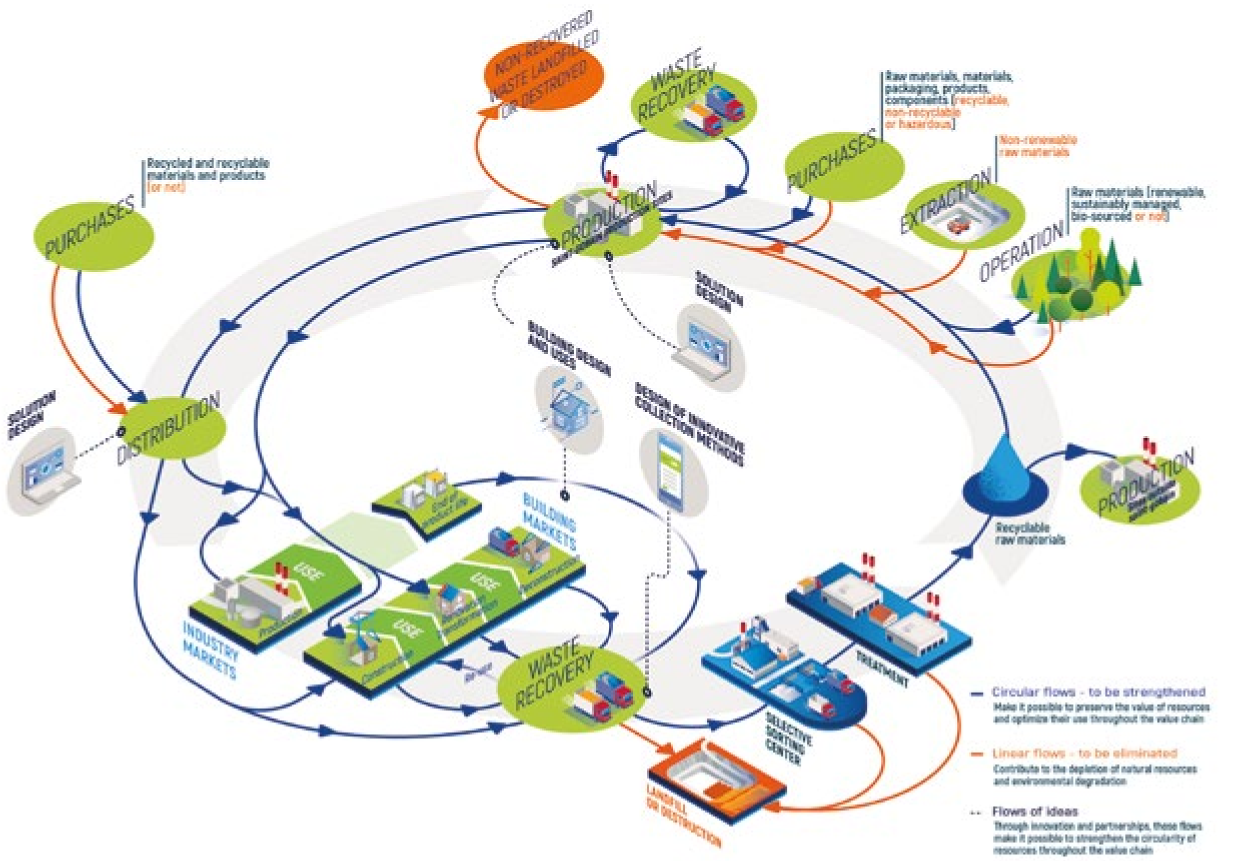
Saint-Gobain wishes to contribute to an economy that preserves the use of resources, to reduce the pressure on non-renewable resources and to enable the regeneration of natural capital.

The circular economy is a model that helps reduce pressure on non-renewable natural resources. Circularity combined with an efficient and reasoned use of resources makes it possible to face the evolutions of society such as urbanization or demographic changes.

This model is applied closer to the markets and at the territorial level. A successful transition towards the circular economy will make it possible to offer solutions and services over the long term which take into account environmental, social and societal expectations and which balance well-being, sustainability and performance for stakeholders. Saint-Gobain is actively and collaboratively involved in discussions on the evolution of construction methods towards lightweight construction solutions that use fewer materials for at least the same performance. In this way, the Group is participating in the transformation of the sector towards more sustainable construction in all the countries where it operates.

In addition to limiting the depletion of natural resources, moving towards greater circularity in the economy generates positive effects on other environmental issues, such as reducing pollution, protecting biodiversity and accelerating the decarbonization of the economy.

Systematically promoting circular flows



3.4.1 STRATEGY FOR A TRANSITION TOWARDS A CIRCULAR ECONOMY

Saint-Gobain's strategy is based on four main areas to reduce the pressure on natural resources throughout its value chain and to optimize the profits of solutions while maintaining the value of resources at the highest level:

- Optimizing processes and solutions in order to generate a minimum of non-recovered waste in production and in the value chain, with particular attention to the impact of use;
- The circular management of the supply chain and operations: elaborate more efficient production processes in terms of resources by ensuring that the use of non-renewable natural resources is limited, sourcing responsibly managed renewable resources and limiting the final waste from production;
- The recovery of resources after the use of products: create recycling channels by initiating or participating in initiatives with all stakeholders to promote the recovery and recycling of construction materials or materials from the industrial markets in which the Group operates;
- A range of solutions that optimize the use of natural resources: by ensuring the recyclability of products and encouraging the integration of recycled materials throughout the product life cycle (including end-of-life management), but also by integrating the extension of the product's useful life or the increase of the utilization rate of products in the offers, for example by encouraging the modularity of buildings, anticipating dismantling for optimum recycling or reuse of materials, but also by involving the stakeholders (through information and training of customers).

Thus, the Group's transition to a circular economy is beneficial for the environment as it reduces the pressure on non-renewable resources and ensures the regeneration of renewable resources, it also helps reduce CO_2 emissions. While responsible resources management is the subject of a Group-wide policy, action plans for the transition to a circular economy are highly dependent on countries, the maturity of stakeholders and local logistics. Approaches are therefore deployed by activity in order to involve the various sectors, in each country.

3.4.2 CHANGING THE PRODUCTS, SOLUTIONS AND SERVICES OFFERING

The gradual emergence of the circular economy is changing value chains and ecosystems. From the design of products, solutions and services to the benefits expected by customers and end users, and the management of product end-of-life, Saint-Gobain's offering must adapt to new methods: incorporating more recycled or renewable materials to reduce the consumption of virgin raw materials and the consequences of their use, particularly on biodiversity; extending the life of products to reduce their environmental impact; and facilitating the recycling or reuse of products at the end of their life to successfully meet market needs with a limited impact on natural resources.

Thus, the portfolio of products and solutions offered by Saint-Gobain is analyzed transversally under the responsibility of the marketing teams with three priorities:

- The substitution of raw materials by recycled or renewable materials, including packaging;
- The development of formulations to reduce their content of hazardous substances until their complete replacement, thus avoiding the dissemination of materials generated during the recycling process;
- The improvement of the recyclability and reusability of products and systems, including their packaging, by integrating repairability and ease of disassembly at the end of life.

Likewise, product design incorporates these eco-innovation principles.

Most of the Group's business lines are working to reduce the resource intensity of their products, by reducing the average weight for the same unit of product, without affecting technical performances. This is the case, for example, for car windshields and plasterboard. Several countries have already implemented the BANTAM program, which aims to reduce the weight of plasterboard by working on industrial processes and product formulations. Some plants have been able to reduce the weight of their standard boards by more than 20% compared with their initial weight. The SLIMWOOL program, deployed since 2018 worldwide, aims to optimize the weight of glass wool, while guaranteeing the product's thermal performance.

The development of a circular economy is also conducive to energy savings and the reduction of carbon emissions. Thus, one of the levers for reducing the carbon impact of glass is the integration of recycled glass. The low-carbon glass range contains around 70% recycled glass.

Each country develops innovations based on the possibilities of accessing new sources of recycled or bio based materials. For example, in 2022, Isover in France launched a new range of insulation called Isocoton, made from recycled clothing fibers. Thus, Isover collects clothing from French recycling channels, transforms it through fraying and assembles it to produce an insulating and high-performance panel. For its part, Weber has developed a new exterior insulation made from cork, a natural and renewable raw material.

The actions deployed concern not only the products but also their packaging. Action plans have been deployed to reduce packaging globally and to ensure that it is recyclable. Consequently, marketing teams and buyers have been working together to change packaging materials or design to encourage recycling in existing channels. Saint-Gobain has set a target of 100% recyclable packaging by 2030. In 2022, 91% of packaging is recyclable.

The solutions proposed by Saint-Gobain as part of its “Sustainable and Efficient Solutions” initiative (see section 3.1.4, p. 84) are offerings that reduce the environmental impact during the use phase. This is of course the case for insulation solutions that promote energy efficiency. Some solutions developed by Weber in particular also help to reduce water consumption on building sites.

Similarly, the integration of recycled materials in products avoids the extraction of virgin non-renewable natural raw materials with a positive impact on biodiversity.

Finally, because construction already accounts for 40% of the world’s resource consumption, Saint-Gobain is actively and collaboratively involved in discussions on the evolution of construction methods towards lightweight construction solutions that use fewer materials for at least the same performance.

This approach to building design and construction methods anticipates the possibility of modularity in buildings so that their use can be adapted during their life cycle. For example, Saint-Gobain's offerings include the ability to dismantle and reuse certain products such as plasterboard.

The criterion of optimizing natural resources is one of the identified benefits as part of the program to develop the offer of sustainable and efficient solutions (see section 3.1.4, p. 84). This criterion includes both limiting the use of natural resources and incorporating recycled materials into product compositions.

3.4.3 CHANGING THE PRODUCTION PROCESSES

Reducing the consumption of raw materials per functional unit produced and the waste generated by industrial processes are the pillars of the sustainable resources management policy initiated in 2015 (see this chapter, section 3.1.3, p. 83) with the aim of moving towards the “zero unrecovered waste”.

Synergies between the Group’s various industrial processes are used to optimize the reuse of waste and by-products. In the countries where Saint-Gobain operates, teams are gradually setting up services to recover waste from customers’ activities, in particular waste from renovation or demolition/dismantling. This waste is collected, sorted and reprocessed before being reused in the industrial process instead of natural raw materials.

Overall synergies are possible across the businesses for each process or raw material to identify the deposits, material qualities or even best technical practices and favorable technical innovations by country. Cross-business working groups including the Industrial and Technical Departments, purchases, sustainable development experts on the collection and processing of recycled materials have been set up to develop these synergies.

The search to replace as many non-recyclable raw materials as possible is part of the industrial performance improvement program (see this chapter, section 3.1.3, p. 77). The aim of these replacements must be to maintain the quality and competitiveness of the products and solutions and even improving them while reducing their carbon footprint.

For flat glass, the recycling of window glass, facade glass or automotive glass is infinitely possible as long as the collected glass elements meet the quality requirements of a “float” furnace, in particular that contaminants of all kinds are eliminated. The integration into products is therefore mainly dependent on the existence of efficient and sustainable collection networks, which are able to ensure sorting that meets the desired quality specifications.

For plaster, once the contaminants have been eliminated, the reprocessing of waste from the building is done by grinding and separating the paper present on both sides of the board. If the plaster itself is indefinitely recyclable, the presence of paper on both sides of the board causes a negative impact on the manufacturing process and must therefore be eliminated as much as possible. Some Saint-Gobain plants now reach 30% recycled content, mainly from construction or demolition plaster waste.

3.4.4 TOWARDS NEW ECONOMIC AND VALUE CHAIN MODELS

While responsible resource management is the subject of a Group-wide policy, action plans for the transition to a circular economy are highly dependent on the country and the maturity of local stakeholders, regulations and logistics. The approaches are therefore deployed by country to mobilize either global channels for the recovery of construction site waste or by trade, i.e., by type of product recovered (glass, plaster, glass wool, etc.).

In many countries, Saint-Gobain is developing services for its customers, which include waste and construction waste retrieval. Collected glass is recycled and used to make glazing or glass wool. Likewise, plaster waste collected can be recycled to make new plasterboard.

The presence in a country of distribution activities adds local synergies through the option of installing collection points close to sales outlets, making it easier to recycle customers' waste.

All of these services are provided directly by Group companies or in partnership with third-party companies.

The principles of the circular economy differ in each country and region of the world. These developments depend on a great variety of factors, such as modes of consumption, infrastructure and the industrial fabric, the legal context and the technical and logistical conditions of waste management. Saint-Gobain organizations in the countries spearhead or take part in initiatives with local stakeholders: industrial initiatives involving an area, customers and local authorities or communities.

As part of their professional channels, Saint-Gobain's "Gypsum" and "Flat Glass for Buildings" entities have signed commitments with the French public authorities on the recycling of waste plaster and glass.

Saint-Gobain has developed a network in Europe, Saint-Gobain Glass Recycling, to facilitate the recycling of flat glass from dismantling or waste from the industry. The aim is to qualify independent companies capable of collecting and dismantling glass products, and which are committed to promoting the recycling of end-of-life glass in a closed loop. Some 20 independent partners have already joined the network to offer treatment and recycling of glass products.

Moreover, Saint-Gobain Distribution Bâtiment France has been organized to take back waste from the same types of construction materials, products and equipment that it sells to professionals, becoming the leading private network of collection points for construction site waste. In its CSR roadmap, Saint-Gobain Distribution, "Bâtiment France" has included a pillar on construction sites waste management. Various partnerships have been set up with specialized companies or start-ups such as Tri'n'collect to speed up the recovery, sorting and recycling of construction waste.

Saint-Gobain in France also works with an association of the Group's retirees, "*Saint-Gobain Solidarités*", to provide a link between the Group's sites in France and local associations in order to facilitate the donation of materials, in particular unsold stock. In this way, the destruction of certain stocks is avoided and their use is facilitated.

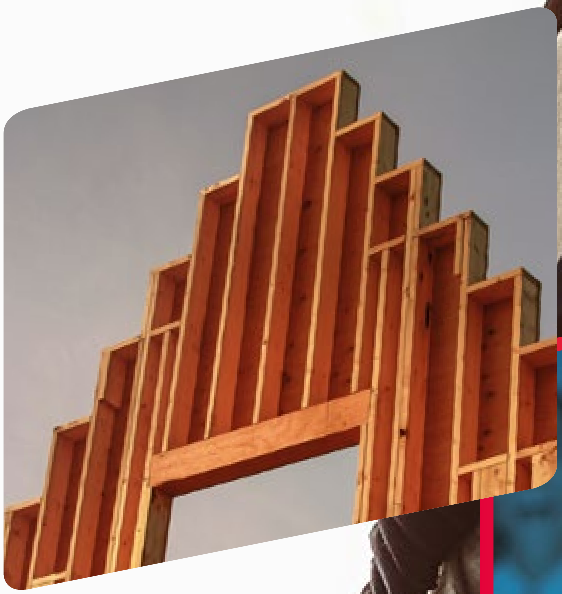
Since 2019, the Group has launched its I-LOOP project, supported by the European Union through its LIFE funding program. This project aims to contribute to gradually recovering glass wool waste generated on building or demolition sites, which currently goes to landfill. It offers an innovative solution for closed loop recycling that can transform waste into a high-quality secondary raw material that is used to manufacture new glass wool. The project aims to offer construction market players new value chains to recycle glass wool in France, Benelux and part of Scandinavia, which will be a cost-effective alternative to landfill.

Ecophon, producer of acoustic panels and ceiling systems, has also developed a recycling service called "SoundCircularity" to collect and recycle waste. This service is available in Sweden, Finland and France. The ambition is to extend its availability in Europe.

The industrial sectors are also developing new services linked to the circular economy. The Ceramics Business Unit has created the Valoref activity, specialized in the treatment and recovery of refractory brick waste. The recovery of waste is carried out mainly during the repair or reconstruction of glass furnaces. A global waste management service is offered to customers upstream of furnace repair or reconstruction sites. Valoref ensures the collection, treatment and recovery of waste from the sites. The waste collected are recycled in priority in the refractory production chain. The other recovery circuits are the manufacture of construction materials such as mortars or tiles, and other industrial additives.

4

2022 RESULTS AND OUTLOOK FOR 2023

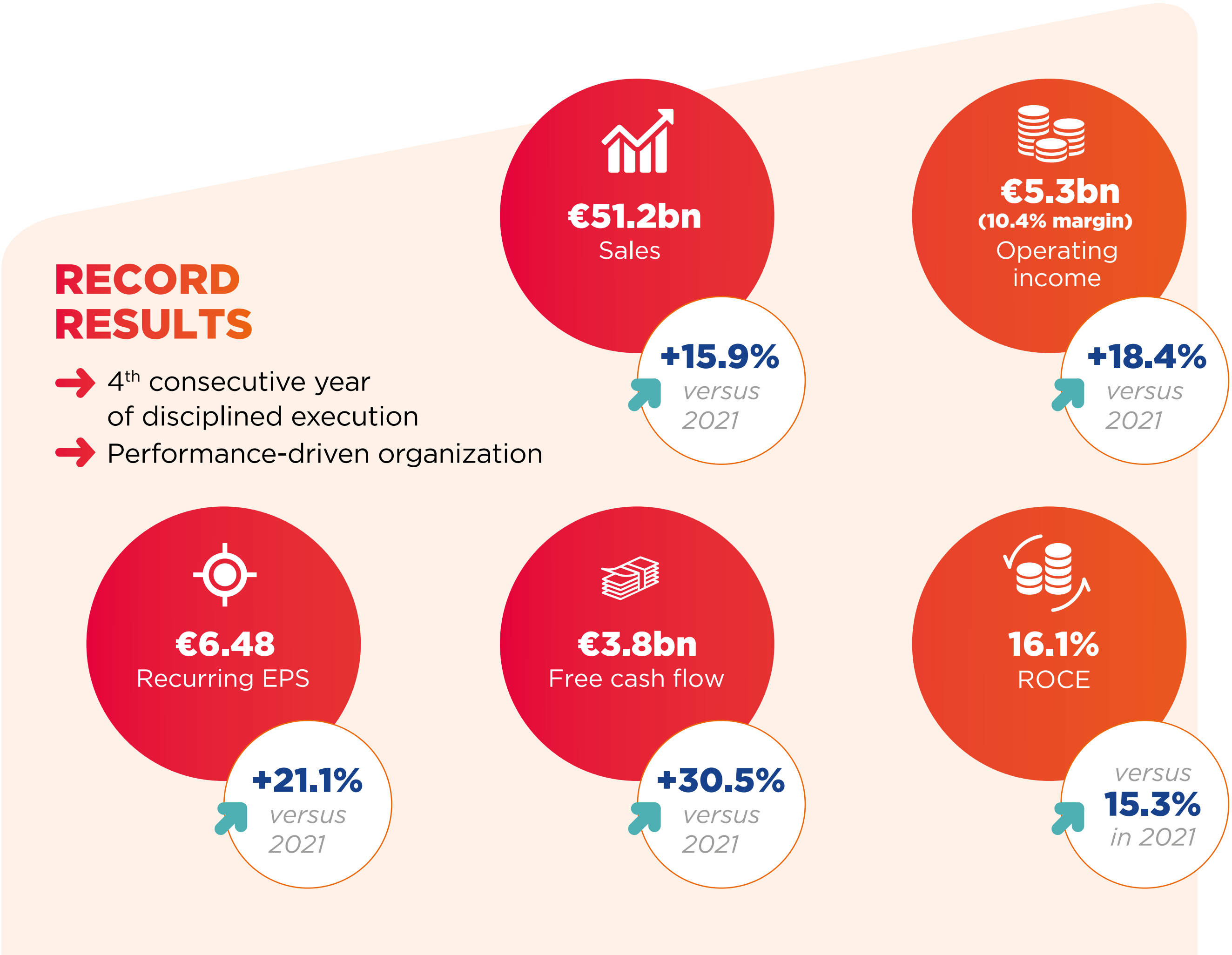


4.1 FINANCIAL RESULTS

The 2022 consolidated financial statements were approved by Saint-Gobain's Board of Directors at its meeting of February 23, 2023. The consolidated financial statements were audited and certified by the statutory auditors.

4.1.1 RECORD 2022 RESULTS

2022 Highlights: record results



- **All financial performance indicators at a record high in 2022 (growth, operating income, margin, recurring net income, free cash flow, ROCE);**
- **Profound transformation of the Group's profile towards fast-growing markets:** one-third of sales rotated in the past four years, **increasing its exposure to North America and emerging countries** and taking **construction chemicals sales to €5.3bn;**
- **27% reduction in CO_2 emissions versus 2017** (scopes 1 and 2), -5% in 2022 versus 2021;
- **Shareholder return: €1.35bn in 2022** (share buybacks and 2021 dividend). **Dividend of €2.00 (+23%)** recommended for 2022;
- **2023 outlook: further execution of the "Grow & Impact" strategy, with the operating margin to remain in the 9%-11% range.**

(in EUR million)	2021	2022	Change
Sales	44,160	51,197	+15.9%
Operating income	4,507	5,337	+18.4%
Operating margin *(in %)*	10.2%	10.4%	+20 BPS
Recurring EPS *(in EUR)*	5,35	6,48	+21.1%
Free cash flow	2,904	3,791	+30.5%
ROCE *(in %)*	15.3%	16.1%	+80 BPS

4.1.2 A NEW, RESILIENT GROWTH PROFILE

A – 2018-2022: years of profound transformation for the Group

- **23% increase in sales in a context of a profound change in Group structure,** with **one-third of sales** rotated since 2018: €9 billion in divestments and almost €4 billion in acquisitions;
- **Sharp improvement in the operating margin in 2022 versus 2018** (270 basis points), including a structural gain of 200 basis points in the period – set to rise to **240 basis points** on a full-year basis **after the disposal of the UK distribution business** – thanks to cost savings related to the new organization and the optimization of the Group's profile;
- **Significant efficiency improvements** thanks to our new organization, reflected especially in close proximity to customers, stronger pricing power and an enhanced culture of results-driven accountability for local teams.

(in EUR million)	2018	2022	Change
Sales	41,774	51,197	+23%
Operating income	3,207	5,337	+66%
Operating margin *(in %)*	7.7%	10.4%	+270 BPS
Recurring EPS *(in EUR)*	3.18	6.48	x2
Free cash flow	1,236	3,791	x3
ROCE *(in %)*	10.7%	16.1%	+540 BPS

B – 2021-2022: successful deployment of the "Grow & Impact" strategic plan

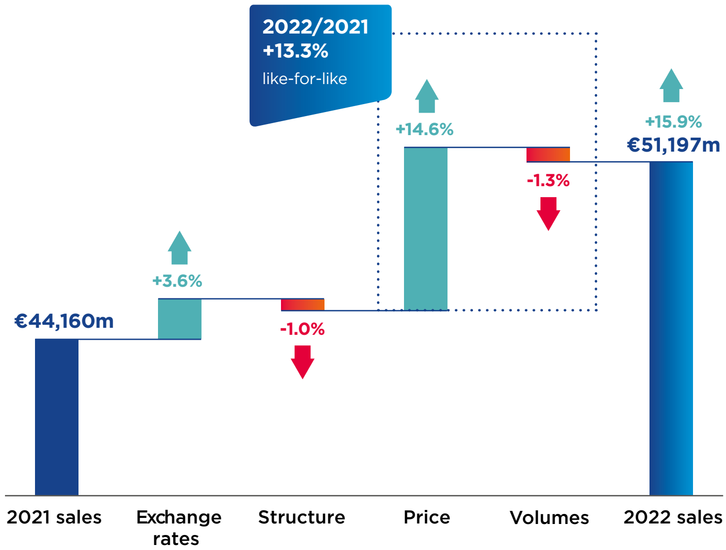
The first two years of the plan successfully met the **new financial trajectory set out in "Grow & Impact"**, with an acceleration in results, cash flow and value creation, exceeding objectives across the board:

- **Strong organic growth of 10% per annum on average** [1], benefiting from an unrivalled offer of sustainable solutions accounting for almost **three-quarters** of Group sales;
- **A world leader in construction chemicals, with annual sales of €5.3 billion** (pro forma basis for changes in Group structure in 2022), thanks to strong organic growth and recent acquisitions (Chryso, GCP, Impac in Mexico, Brasprefer and Matchem in Brazil, IDP Chemicals in Egypt, Best Crete in Malaysia, Choksey Chemicals in India, and Urumix in Uruguay);
- **Operating income now well-balanced between the three geographic zones** (pro forma basis for changes in Group structure in 2022): 30% in North America, 32% in Asia and emerging countries and 38% in Western Europe;
- **Record financial results**, with on average over two years: an operating margin of 10.3%, a free cash flow conversion ratio of 56% and strong value creation with a ROCE of 15.7%;
- **Record-high shareholder return**: €2.6 billion over two years through share buybacks and dividend payouts. With over €1 billion in shares bought back over two years, the Group is ahead of its €2 billion buyback target over five years (2021-2025).

[1] *Average organic growth in 2021 and 2022: +6.9% in 2021 (+13.8% for 2021/2019 divided by two) and +13.3% in 2022.*

4.1.3 GROUP OPERATING PERFORMANCE

A – Dynamic Organic Growth



- **Outperformance on our main markets**
- **Structure:** continued **optimization of Group profile** (divestments and acquisitions)
- **Exchange rates:** appreciation of the US dollar, Brazilian real and other emerging country currencies

Like-for-like sales rose 13.3%. This performance – supported by **strong momentum in all our segments with double-digit organic growth in each** – was driven by the Group's worldwide leadership in light and sustainable construction.

Leveraging the added value offered by its solutions and its dynamic local organization as close to its customers as possible, Saint-Gobain was able to protect its operating margin, generating a **positive price-cost spread** over 2022 as a whole and in each half of the year, thanks to a **14.6%** price increase overall (13.8% increase in the second half against a higher comparison basis). This agility enabled the Group to effectively manage energy and raw material cost inflation, which represented about €3 billion in 2022 versus 2021.

The Group reported a slight decline in volumes, down 1.3% over the year as a whole and down 2.3% in the second half (with a negative working day effect of around 0.5% for this latter period).

On a reported basis, sales jumped **15.9%** to **€51.2 billion**, with a positive currency effect of 3.6% over the year as a whole (2.4% in the fourth quarter). The Group structure impact reduced sales by 1.0% over the year as a whole but was positive in the second half, adding 1.3% to sales.

The Group resolutely continued to optimize its profile in 2022, in terms of both divestments, with €3.8 billion in sales divested or in the process of being divested – namely distribution in the UK and Poland, glass processing and Crystals & Detectors businesses – and in terms of acquisitions, with €1.9 billion in sales acquired, mainly **GCP** Applied Technologies (GCP) in October 2022 and Impac in Mexico in April 2022 in construction chemicals, **Kaycan** in North America in August 2022 in exterior products, and Rockwool India Pvt Ltd. in February 2022 in insulation.

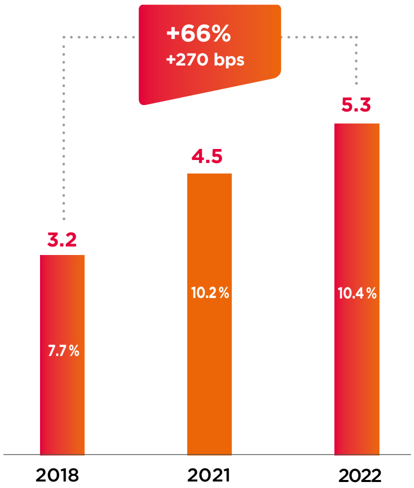
The **disposal of all remaining UK distribution brands** (around €2.7 billion in sales in 2022) **will be finalized by the end of March 2023**.

The integration of recent acquisitions is proceeding seamlessly, and all synergies have been confirmed and are being put in place:

- **Chryso**: 20% growth in sales and €100 million in EBITDA for 2022, maintaining an industry-leading EBITDA margin;
- **Kaycan**: USD 84 million in EBITDA for 2022 as a whole;
- **GCP**: EBITDA forecast at USD 170 million in 2023 for the first full year.

B – Record operating income and record margin for the second consecutive year

(€Bn and %)



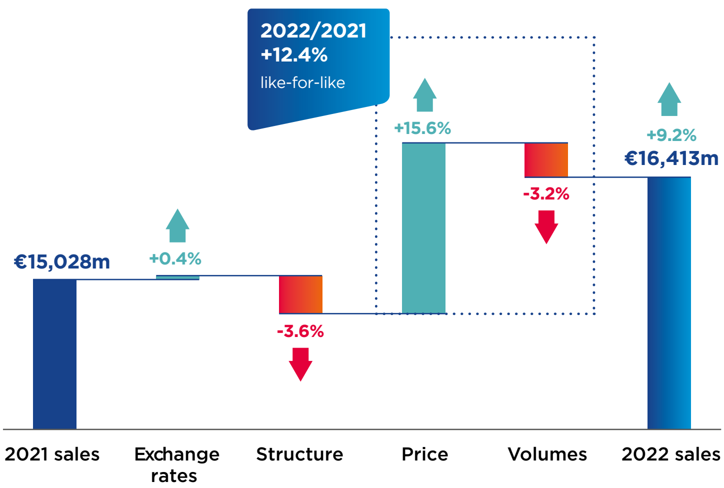
- Sharp rise in operating income since 2018: up 14% per year on average
- Record double-digit margin for the second consecutive year
- Improvement in the operating margin: +270 bps versus 2018
- Sound management of the price/cost spread

Operating income rose sharply to **a new record high of €5,337 million, up 18.4%** as reported versus 2021 and up 13.3% at constant exchange rates (up 11.7% like-for-like). Operating income is 66% higher than in 2018.

The Group's **operating margin** hit a new record high, at **10.4% in 2022** (versus 10.2% in 2021), representing an increase of 270 basis points since the launch of the Group's transformation at the end of 2018.

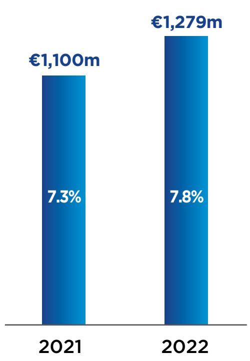
4.1.4 SEGMENT PERFORMANCE (LIKE-FOR-LIKE SALES)

A – Northern Europe: good growth in sales driven by renovation; record operating margin



SALES *(€M)*

Change in sales on a like-for-like basis
Nordics +10.9%
United Kingdom +9.9%
Germany +16.4%



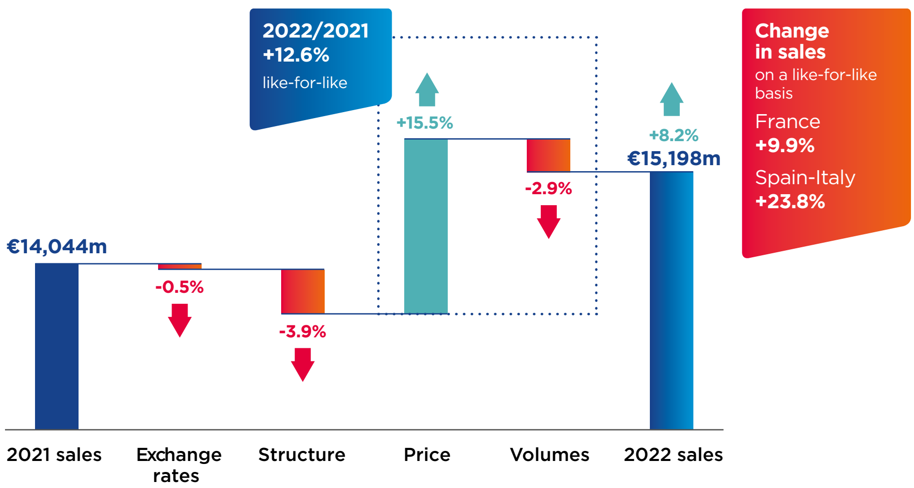
OPERATING INCOME *(€M)* AND MARGIN *(%)*

Northern Europe was up 12.4% in the year against a strong inflationary backdrop, with a slight decrease in volumes amid a slowdown in new construction. Renovation remained at a good level, supported by stimulus measures and stricter energy performance regulations. The Region's operating margin came in at a new record high of 7.8% (versus 5.6% in 2018), thanks to an optimized business profile and sound management of the price-cost spread.

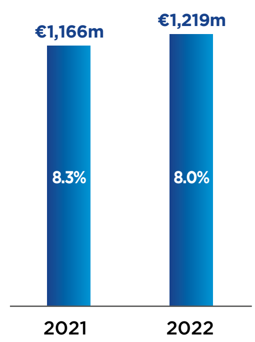
Nordic countries outperformed their market thanks to their successful presence across the entire construction value chain. Trade professionals continued to see full order books. Our Fredrikstad factory in Norway, the world's first carbon-neutral plasterboard plant, will start production by the end of first-half 2023. **The UK** put in a satisfactory performance amid a more pronounced slowdown in the market in both new construction and renovation. The country has been very active in optimizing its portfolio, with about €3.4 billion in sales divested or in the process of being divested (all distribution brands and glass processing) over the past two years.

In Germany, where the market slowed in the second half owing to fears regarding inflation and the energy supply, the Group benefited from its solid positions in energy efficiency renovation. Despite a slowdown in the second half, **Eastern Europe** posted an excellent performance in 2022 – led by Poland and Romania – benefiting from its leadership positions. A renewable electricity supply agreement has been signed in Poland which will cover around 45% of Saint-Gobain Poland's electricity needs from 2025.

B – Southern Europe – Middle East & Africa: good sales growth driven by renovation; very good margin level



SALES *(€M)*



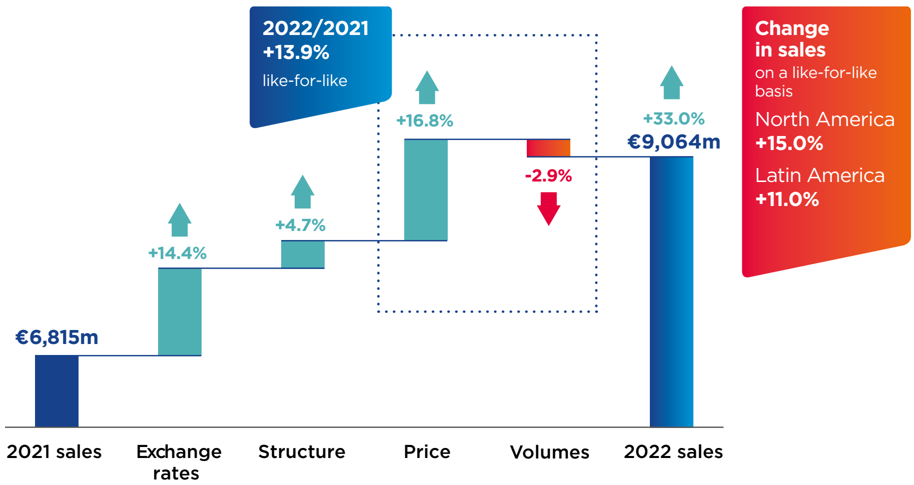
OPERATING INCOME *(€M)* AND MARGIN *(%)*

Sales in Southern Europe – Middle East & Africa were up by 12.6% in a strongly inflationary environment, with volumes down slightly over the year on the back of a slowdown in new construction. Note that the Region delivered a good fourth-quarter performance with stable volumes, thanks to its continued outperformance on the more resilient renovation market, where demand was driven by stricter regulations, government stimulus measures and faster payback for energy efficiency renovation projects. Operating income hit a new record high with an operating margin of 8.0% (versus 4.6% in 2018), thanks to a highly optimized post-transformation profile, good management of the price-cost spread, productivity gains and a tight rein on costs.

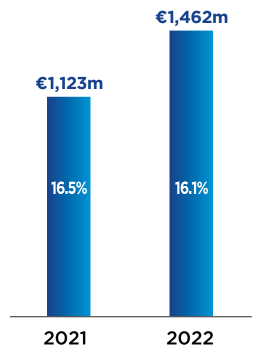
In **France**, the Group strengthened its presence on the renovation market, where trade professionals continue to see healthy order books – thanks mainly to a favorable regulatory environment, public building programs and household stimulus packages (MaPrimeRenov'). Saint-Gobain's presence across the entire value chain – the market's first low-carbon glass solutions, digital apps for customers, a focus on collection and recycling, training centers for trade professionals – confirms the Group's position as undisputed leader in energy efficiency renovation.

Spain and **Italy** delivered robust growth with a further increase in volumes, thanks to their commercial organization by sales channel and range of light and sustainable construction solutions. **Benelux** held firm in a more difficult market and benefited from the development of innovative solutions improving our clients' productivity. **Middle East and Africa** continued to see robust growth, benefiting from the opening of three new construction chemicals plants (Kenya, South Africa, Oman) and by upbeat markets, particularly in the Gulf States and Egypt.

C – Americas: good sales growth driven by comprehensive light construction solutions; robust margin



SALES *(€M)*

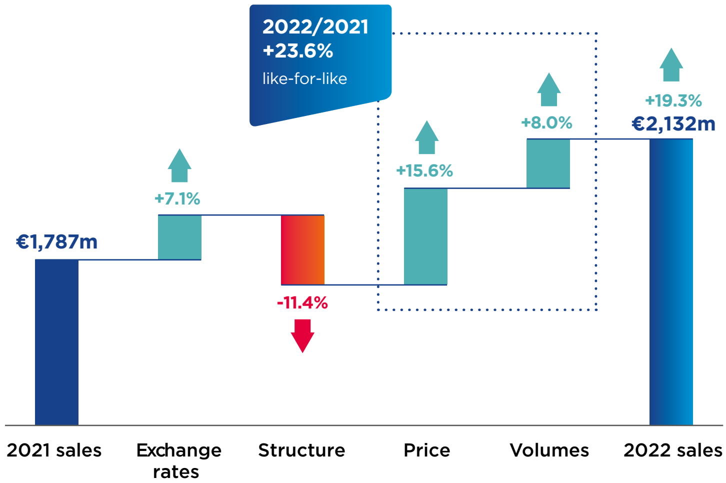


OPERATING INCOME *(€M)* AND MARGIN *(%)*

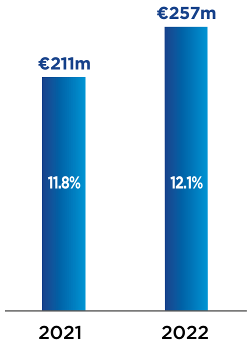
The Americas Region delivered 13.9% organic growth, despite a slowdown in new construction in the second half of the year. Operating income for the Region hit a new record high of €1.5 billion with a 30% increase in absolute terms; the US now represents the Group's biggest market in terms of operating income. The Region achieved an operating margin of 16.1% (versus 11.2% in 2018), supported by good momentum from recent acquisitions, cost and sales synergies and a clear positive raw material and energy price-cost spread.

- **North America** progressed by 15.0%, driven by the development of a comprehensive range of solutions, by good momentum in light construction solutions, and by a strong presence in renovation. 2022 saw the launch of MaxPro, a new blowing wool to insulate attics. Although new construction slowed, the structural need for more housing, as well as the number of construction projects currently in progress, should help limit the slowdown. Our teams made good progress on the integration of Kaycan and of GCP's specialty construction materials business (waterproofing membranes), helping to speed up implementation of the expected synergies, confirm the sales development opportunities and reinforce Saint-Gobain's leading position in construction materials in North America. After a renewable wind farm energy supply agreement executed in 2021, in 2022 the Group signed a new contract based on solar energy: together these agreements will cover over 60% of Saint-Gobain's electricity needs in North America by the end of 2024.
- **Latin America** reported 11.0% growth in a macroeconomic environment that remains challenging in Brazil. Growth in all countries of the Region was supported by higher sales prices, an enriched offer and mix, and a geographic footprint and product range enhanced by bolt-on acquisitions country-by-country in construction chemicals (Impac in Mexico, Brasprefer in Brazil in waterproofing, and Urumix in Uruguay – Saint-Gobain's first facility in the country) and in insulation (Termica San Luis in Argentina).

D – Asia-Pacific: strong sales growth and record margin



SALES *(€M)*

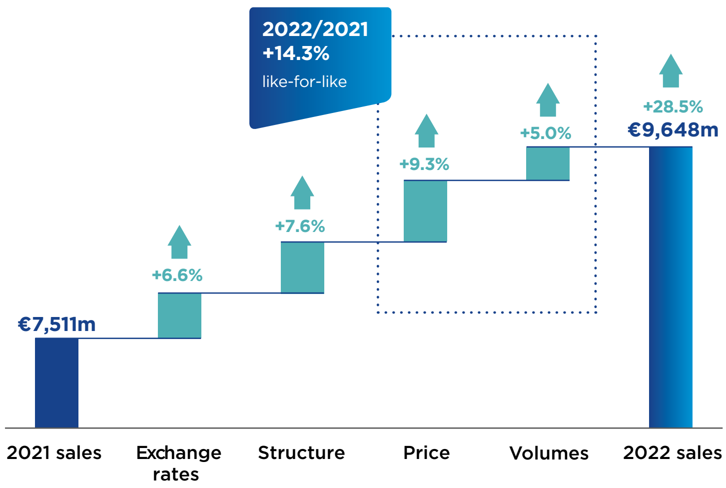


OPERATING INCOME *(€M)* AND MARGIN *(%)*

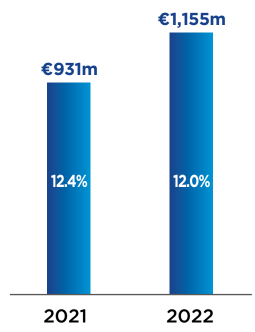
The Asia-Pacific Region reported 23.6% organic growth, led by India and South-East Asia. The operating margin came in at an annual record high of 12.1% (compared to 10.4% in 2018), supported by good momentum in volumes and by a positive raw material and energy price-cost spread.

India delivered an excellent performance in 2022, thanks to further market share gains and an innovative, integrated range of solutions rolled out to new customers. Around 85 "MyHome by Saint-Gobain" showrooms presenting our range of solutions to a new consumer market will soon be operational in the country. To remain in step with market growth, Saint-Gobain has inaugurated a new plasterboard plant which will be powered by biomass in 2024, continued to expand in construction chemicals and made preparations for the opening of its sixth float glass plant in 2023. The successful integration of Rockwool India Pvt. Ltd. (stone wool insulation) and the definitive agreement to acquire U.P. Twiga Fiberglass Ltd. (glass wool insulation) complete the Group's leading positions in façade and interior solutions. Despite disruptions owing to the health situation, **China** posted moderate growth mainly driven by prices, benefiting from its distinctive positioning on the growing light construction and renovation markets. In **South-East Asia**, the Group continues to enjoy a strong growth dynamic and to outperform the market – particularly in Vietnam and Malaysia – supported by a diversified offering in construction chemicals with two new production lines opened in 2022 (Vietnam and Philippines). In addition, the acquisition of Best Crete in Malaysia at the end of the year enhances our resin-based flooring solutions.

E – High Performance Solutions (HPS): acceleration in sales growth



SALES *(€M)*



OPERATING INCOME *(€M)*
AND MARGIN *(%)*

HPS sales were up by 14.3%, benefiting from an acceleration in prices in the second half and from good volume growth (up 5.0% in 2022), thanks mainly to the recovery in automotive in Europe in the second half. The operating margin came in at 12.0%, down slightly year-on-year owing to a negative mix effect and to the gradual catch-up in prices in Mobility in a strongly inflationary environment.

- Businesses serving **global construction customers** achieved record sales and outperformed the market with 19.5% growth. They continued to benefit from upbeat trends in textile solutions for external thermal insulation systems (ETICS). The very strong trends in Chryso sales and results continued, driven by decarbonization in the construction sector, growth capex (fifth additives plant in India) and targeted acquisitions (Matchem in Brazil, IDP Chemicals in Egypt). The new Construction Chemicals organization integrating GCP has been in place since October 1, 2022 and will help to accelerate implementation of the expected synergies.
- The **Mobility** business saw sales progress 14.9% over the year, with an acceleration in the second half at 24.4%, supported by both a gradual catch-up in sales prices and by a rebound in volumes. The business continued to enjoy upbeat momentum in the Americas, India and China. Thanks to its technological lead in solutions for electric vehicles – which accounted for 30% of our sales at the end of the year – and to its high value-added solutions, the Mobility business continues to outperform the automotive market.
- Businesses serving **Industry** grew 12.8%, supported by activities relating to investment cycles such as ceramics, which benefited from strong demand for innovation in specialty materials and new decarbonization technologies. Against this backdrop, Valoref, a pioneer in ceramic recycling in Europe, increased its sales by almost 50% in 2022 by expanding its operations internationally into India and China, and is now targeting North America.

4.1.5 FINANCIAL RESULTS

A – Record EBITDA for the second consecutive year

(in EUR million)	2021	2022	2022/2021
Operating income	**4,507**	**5,337**	**+18.4%**
Non-operating costs	(239)	(262)	
Capital gains (losses) and impact resulting from changes in Group structure	(67)	(85)	
Asset write-downs and other	(265)	(408)	
Business income	3,936	4,582	
Operating income	**4,507**	**5,337**	
Operating depreciation and amortization	1,934	2,048	
Non-operating costs	(239)	(262)	
EBITDA	**6,202**	**7,123**	**+14.9%**

EBITDA climbed 15% to a **new record high of €7,123 million** (up 53% compared to 2018). EBITDA includes €262 million in non-operating costs.

The net balance of capital gains and losses on disposals, asset write-downs and the impact of changes in Group structure represented an expense of €493 million (versus an expense of €332 million in 2021). It reflects €292 million in asset write-downs mainly relating to disposals (UK distribution in particular), €116 million in Purchase Price Allocation (PPA) intangible amortization, and €85 million in disposal losses and impacts relating to changes in Group structure.

B – Record recurring net income for the second consecutive year

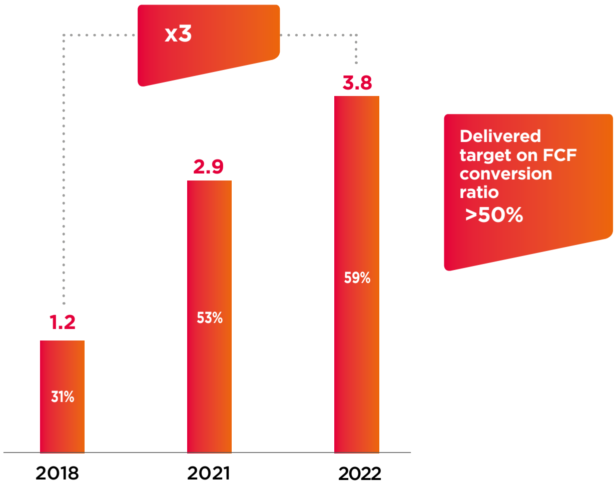
(in EUR million)	2021	2022	2022/2021
BUSINESS INCOME	**3,936**	**4,582**	
Net financial expense	**(408)**	**(405)**	
Income tax	**(919)**	**(1,082)**	
NET ATTRIBUTABLE INCOME	**2,521**	**3,003**	
RECURRING NET INCOME	**2,815**	**3,335**	**+18.5%**
Recurring EPS *(in EUR)*	**5.35**	**6.48**	**+21.1%**

Recurring net income hit a new record high of €3,335 million (up 18%). The tax rate on recurring net income was 25%.

Capital expenditure totaled €1,940 million (up 22%), driven by a 61% increase in growth capex, of which almost 70% was in North America and emerging countries. Capital expenditure represented 3.8% of sales in 2022. The Group opened **17 new plants and production lines to bolster its leading positions on the fast-growing markets of construction chemicals and light construction**, particularly in Asia (India, Philippines, Vietnam, China), Africa and the Middle East (Kenya, Zimbabwe, Oman), Latin America (Mexico, Brazil) and Europe (Czech Republic with a 3D printing site, Poland).

C – Record free cash flow generation

FREE CASH FLOW IN €BN AND CONVERSION RATIO IN %



- Deep-rooted **cash culture:** three-fold increase in free cash flow vs. 2018 (+31% vs. 2021)
- **Reduction in OWCR*** of **14 days'** sales vs. 2018 (-2 days vs. 2021)
- **Optimization of maintenance CAPEX,** total CAPEX in line with the objective of between 3.5% and 4.5% of sales (3.8% in 2022)

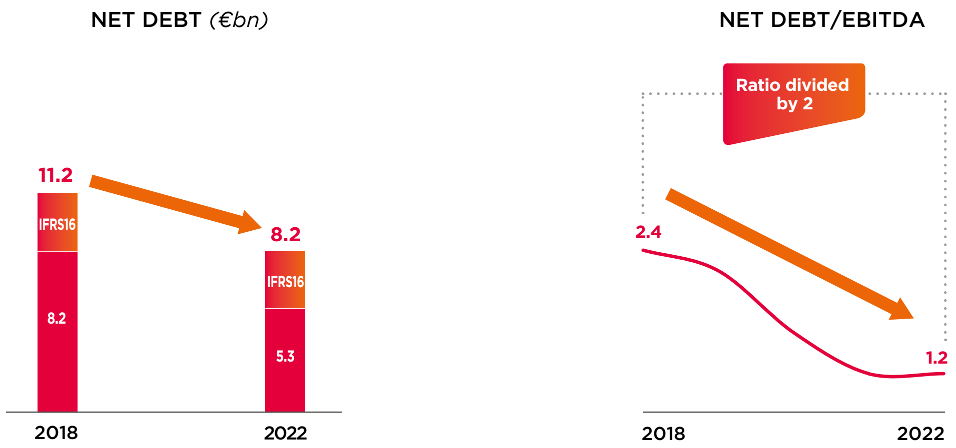
Free cash flow came in at a record €3,791 million – a rise of 31% and a three-fold increase compared to 2018 – with a **free cash flow conversion ratio of 59%** (versus 53% in 2021 and 31% in 2018). This reflects strong growth in EBITDA and very good management of operating working capital requirement (WCR), which represented 15 days' sales at end-December 2022 compared to 17 days' sales at end-December 2021.

ROCE hit a new all-time high of 16.1% (versus 15.3% in 2021 and 10.7% in 2018), resulting in strong value creation for our shareholders, exceeding or meeting the 12%-15% objective in all our segments.

Investments in securities of controlled companies net of debt acquired totaled **€3,684 million** (versus €1,319 million in 2021), primarily reflecting the acquisition of GCP in construction chemicals – but also Impac in Mexico, Matchem and Brasprefer in Brazil, Urumix in Uruguay, and IDP Chemicals in Egypt – as well as Kaycan in exterior products in North America and Rockwool India Pvt Ltd. in insulation in India. In total, acquisitions made by the Group in 2022 represent approximately €1.9 billion in full-year sales and approximately €300 million in EBITDA.

Divestments totaled €501 million, corresponding essentially to the sale of specialized distribution activities in the UK, Crystals & Detectors and ceramics for the steel market.

D – Balance sheet further strengthened



Net debt/EBITDA at 1.2x for the second consecutive year, exceeding objectives (1.5x to 2.0x)

Net debt was €8.2 billion. Net debt as a percentage of consolidated equity was stable at 35% at December 31, 2022. The net debt to EBITDA ratio also remained stable year-on-year at 1.2, half its end-2018 level.

4.1.6 ATTRACTIVE SHAREHOLDER RETURN POLICY

In 2022, Saint-Gobain returned a record €1.35 billion to its shareholders, representing a total yield of 5.8% based on its closing share price at December 31, 2022 (€45.65):

- Around **€835 million was paid by the Group to its shareholders in respect of the dividend** for 2021;
- **€520 million was allocated for share buybacks** in 2022 (net of offsetting employee share creation) in order to reduce the number of shares outstanding to 511 million at December 31, 2022 from 521 million at December 31, 2021.

In 2023, the Group **plans to return over €1.4 billion in total to shareholders:**

- At today's meeting, Saint-Gobain's Board of Directors decided to recommend to the Shareholders' Meeting on June 8, 2023 a cash **dividend up 23% to €2.00 per share** for 2022 (versus €1.63 in 2021). This dividend represents **31% of recurring net income**. The ex-dividend date has been set at June 12 and the dividend will be paid on June 14, 2023;
- **The Group will allocate at least €400 million for share buybacks in 2023** (net of offsetting employee share creation) – in order to further reduce the number of its outstanding shares – in line with the objectives set out in its "Grow & Impact" plan.

4.1.7 2023 OUTLOOK AND STRATEGIC PRIORITIES

In an uncertain geopolitical and macroeconomic environment, the Group will continue to **outperform its markets** thanks to the **pertinence of its strategic positioning** at the heart of **energy and decarbonization challenges**.

In 2023 the Group's focus will be on **consolidating its high operating performance level, supported by its resilience and ability to swiftly adapt to local market developments**. **Action plans** are overseen by country CEOs in order to **optimize in real time** their P&Ls in terms of sales prices, fixed and variable costs, or production capacities.

Saint-Gobain expects a moderate slowdown in its markets in 2023, with contrasting trends: a decline in new construction in certain regions but good resilience overall in renovation:

- **Europe:** resilience in renovation while new construction slows;
- **Americas:** slowdown in new construction, partly mitigated by demand on the renovation market;
- **Asia-Pacific:** good growth in most countries;
- **High Performance Solutions:** good momentum supported by ongoing improvement in automotive.

Against this backdrop, in 2023 the Group will continue to implement the **strategic priorities set out in its "Grow & Impact" plan for 2021-2025:**

1) **Consolidate our initiatives focused on profitability and performance: maintain a very good operating margin level and strong free cash flow generation:**
   - **Constant focus on the price-cost spread;**
   - **Productivity initiatives** and swift adjustments of fixed and variable costs where necessary;
   - Maintaining **an optimized operating working capital requirement** while ensuring a good level of inventories to best serve customers;
   - **Capital expenditure** of just over 4% of sales, consistent with the Group's objective of between 3.5% and 4.5% of sales, with strict allocation to high-growth markets.
2) **Outperform our markets and continue to strengthen our profitable growth profile:**
   - **Enrich our comprehensive** range of integrated, differentiated and innovative solutions offering sustainability and performance;
   - **Continue our targeted acquisition and divestment dynamic**, and benefit from the integration of recent acquisitions.
3) **Accelerate our engagement in building a carbon-neutral economy:**
   - **Enrich our positive-impact and low-carbon solutions;**
   - **Accelerate decarbonization across the value chain:** optimization of manufacturing processes, development of the circular economy, partnerships in renewable energies and ESG emissions reduction roadmaps at our suppliers and partners.

Amid a moderate market slowdown, in 2023, Saint-Gobain is targeting an operating margin of between 9% and 11%, in line with the "Grow & Impact" strategic plan target.

This document contains forward-looking statements with respect to Saint-Gobain's financial condition, results, business, strategy, plans and outlook. Forward-looking statements are generally identified by the use of the words "expect", "anticipate", "believe", "intend", "estimate", "plan" and similar expressions. Although Saint-Gobain believes that the expectations reflected in such forward-looking statements are based on reasonable assumptions as at the time of publishing this document, investors are cautioned that these statements are not guarantees of its future performance. Actual results may differ materially from the forward-looking statements as a result of a number of known and unknown risks, uncertainties and other factors, many of which are difficult to predict and are generally beyond the control of Saint-Gobain, including but not limited to the risks described in the "Risk Factors" section of this document. Accordingly, readers of this document are cautioned against relying on these forward-looking statements. These forward-looking statements are made as of the date of this document. Saint-Gobain disclaims any intention or obligation to complete, update or revise these forward-looking statements, whether as a result of new information, future events or otherwise, except as required by applicable laws and regulations.

4.2 NON-FINANCIAL RESULTS

4.2.1 ALIGNMENT OF THE CSR DASHBOARD WITH THE GROUP'S CHALLENGES

Saint-Gobain has prioritized its CSR challenges and actions. These key challenges relate to risks and opportunities identified in accordance with legal requirements (see chapter 2, section 1.3.3). They also consider the stakeholder expectations identified in the materiality analysis and the Group's environmental, social and societal challenges.

A CSR roadmap was published in 2019. It is a tool for managing the Group's CSR strategy. This roadmap is based on six key challenges for the Group: business ethics, climate change, inclusion and diversity, the circular economy, health and safety across the entire value chain and inclusive local value creation.

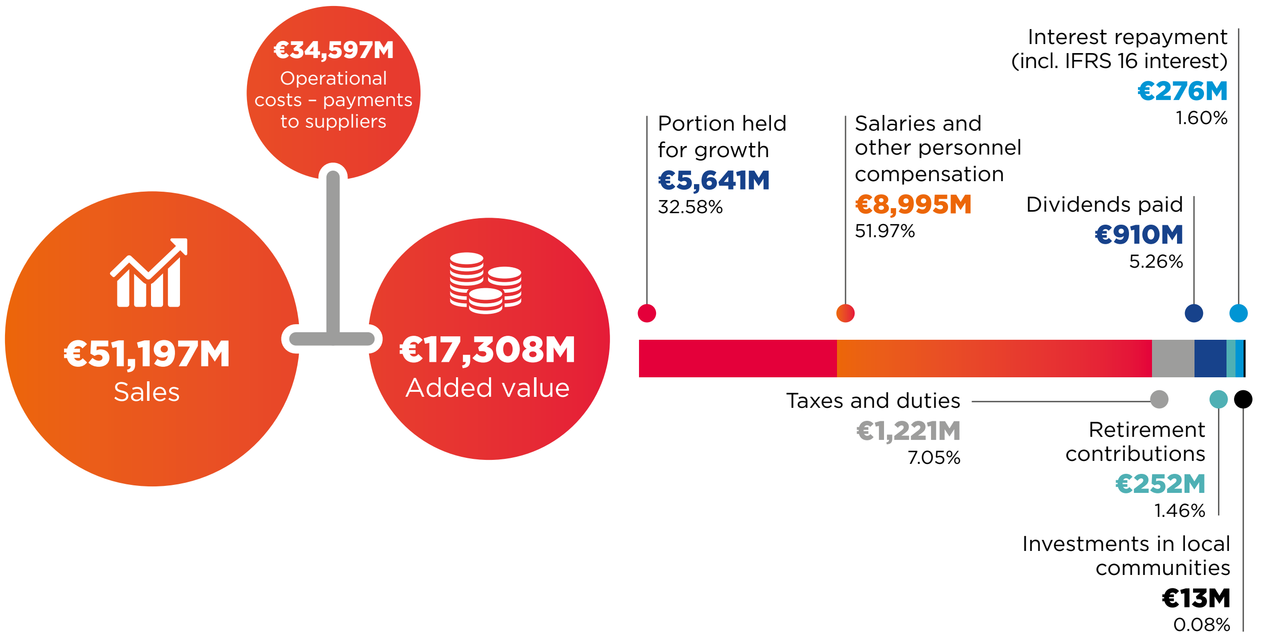
This roadmap reflects Saint-Gobain's willingness to assess its performance in terms of impacts on the environment, human beings and society generated by its activities and the expectations of its stakeholders.

In November 2020, the Group implemented its CO_2 roadmap to achieve carbon neutrality by 2050. New targets for reducing carbon emissions in scopes 1 and 2 and in scope 3 between 2017 and 2030 were validated by the Science-Based Targets initiative (SBTi). These targets were therefore included in the dashboard in 2021 to replace the targets for 2025 (based on equivalent production levels).

This dashboard update also includes the action plans implemented as part of the "Grow & Impact" strategic program.

OBJECTIVES	2022 RESULTS	PROGRESS IN 2022
Climate change		
Contribute to a just and sustainable transition, aligned with the Paris Agreement		
-33% on scopes 1 and 2 between 2017 and 2030 (in absolute value)	-27% ($9.8\ MtCO_2$)	82%
-50% on industrial water withdrawals between 2017 and 2030 (in absolute value)	-20% (45 million m^3)	40%
Circular economy		
Create value through a circular business model that conserves resources		
-80% non-recovered waste between 2017 and 2030 (in absolute value)	-37% (0.383 Mt)	46%
+30% of natural raw materials avoided between 2017 and 2030	-5% (9.407 Mt avoided)	0%
Health and safety across the entire value chain		
Our primary responsibility is to guarantee the health and safety of our employees and stakeholders		
Value of TRAR: 1.5 at end-2030 (performance compared with 2017)	1.5	100%
100% of sites covered by a chemical inventory by 2025	81%	81%
Employee engagement and diversity		
Create a work environment conducive to professional and personal growth and promoting the inclusion of all diversity and equity		
Employee engagement rate above benchmark every year	84% vs. 74%	100%
30% female managers by 2025	27.4%	91%
Inclusive growth		
Create shared economic growth with stakeholders in a spirit of mutual trust and transparency		
100% of countries have a community assistance program by 2025	84%	84%
100% coverage of the CARE program by 2023	100% employees covered	100%
Business ethics		
Create shared economic growth with stakeholders in a spirit of mutual trust and transparency		
100% of new managers are trained in the Code of Ethics in their first year with the Group every year	96% Code of Ethics 98% corruption 98% competition	97%
100% responsible timber purchases by 2025	95.7%	96%

In addition to this dashboard, Saint-Gobain assesses value creation for each stakeholder every year.


€34,597M
Operational costs – payments to suppliers
€51,197M
Sales
€17,308M
Added value
Portion held for growth
€5,641M
32.58%
Salaries and other personnel compensation
€8,995M
51.97%
Interest repayment (incl. IFRS 16 interest)
€276M
1.60%
Dividends paid
€910M
5.26%
Taxes and duties
€1,221M
7.05%
Retirement contributions
€252M
1.46%
Investments in local communities
€13M
0.08%

4.2.2 NON-FINANCIAL INDICATORS

Saint-Gobain has placed CSR at the heart of its strategy and wishes to transparently communicate its non-financial performance and its progress towards its short-, medium- and long-term objectives.

This communication is part of its dual commitment: minimizing its footprint on human beings and the environment and maximizing its positive contribution to climate, social and societal issues.

Environment

Saint-Gobain acts to reduce its environmental footprint and is committed to achieving carbon neutrality by 2050 thanks to its 2030 CO_2 roadmap:

- Reduction in scope 1 and 2 CO_2 emissions, down to 9.8 million tonnes in 2022, representing a 27% reduction since 2017, in line with the 2030 target of a 33% reduction, validated by the Science-Based Targets initiative (SBTi);
- Growth decoupled from CO_2 emissions: carbon intensity per euro of sales and EBITDA fell by 42% and 57% respectively in 2022 compared to 2017, reflecting the Group's objective of maximizing its positive impact for the environment while minimizing its footprint;
- More than half of electricity consumption is generated from decarbonized electricity;
- Energy consumption has been reduced by 3.7% between 2021 and 2022. Considering the impact of energy on carbon emissions, Saint-Gobain favors the transition to decarbonized energies by changing its energy mix.

Objectives	Deadline	2022 data	2021 data	2020 data	Progress
-33% on CO_2 emissions scopes 1 and 2 between 2017 and 2030 (in absolute value)	2030	-27.0% (9.8 Mt)	-23.0% (10.3 Mt)	N/A (10.4 Mt)	81.8%
-16% on CO_2 emissions scopes 3 between 2017 and 2030 (in absolute value)	2030	(21.3 Mt) [(1)]	(21.3 Mt)	(17.4 Mt)	-
-50% on industrial water withdrawals between 2017 and 2030 (in absolute value)	2030	-19.9% (45.0 M of m³)	-14.0% (48.1 M of m³)	N/A (45.4 M of m³)	39.7%
Zero water discharge in area with extremely high water risk	2030	(0.6 M of m³)	(0.8 M of m³)	N/A	-
-80% non-recovered waste between 2017 and 2030 (in absolute value)	2030	-36.6% (0.4 Mt)	-24.0% (0.5 Mt)	N/A (0.4 Mt)	45.8%
+30% of virgin raw materials avoided between 2017 and 2030	2030	-4.7% (9.4 Mt)	+1.0% (10.0 Mt)	N/A (9.3 Mt)	15.6%
100% of revenue generated with products covered by verified LCA or EPD, excluding distribution activity, by 2030	2030	47.9%	29.1%	N/A	47.9%
100% of recyclable packaging by 2030 in absolute value	2030	91.10%	69.0%	N/A	91.1%
Bio-sourced or recycled content in packaging (>30%) in 2030	2030	86.3%	N/A	N/A	287.7%
Reduce CO_2 emissions by 20% (scope 1 +2) at iso-production between 2010 and 2025	2025	-26.0%	(21.7%)	N/A	130.0%
Reduce SOx emissions by 20% between 2010 and 2025 at iso-production	2025	-67.0% (8,789 t)	-66.1% (8,372 t)	-51.8% (10,276 t)	165.0%
Reduce NOx emissions by 20% between 2010 and 2025 at iso-production	2025	-33.0% (18,257 t)	-32.4% (16,906 t)	-15.7% (16,988 t)	320.0%
Reduce dust emissions by 20% between 2010 and 2025 at iso-production	2025	-64.0% (4,705 t)	-57.1% (4,731 t)	-53.0% (4,817 t)	285.0%
Reduce energy consumption by 15% between 2010 and 2025 at iso-production	2025	-6.0% (41,854 GWh)	-3.4% (43,461 GWh)	+1.3% (41,020 GWh)	40.0%
Reduce liquid water discharge by 80% between 2010 and 2025 at iso-production	2025	-41.0% (45.0 M of m³)	-39.8% (48.1 M of m³)	-31.5% (45.4 M of m³)	51.3%
Reduce non-recovered waste by 50% between 2010 and 2025 at iso-production	2025	-38.0% (0.4 Mt)	-27.3% (0.5 Mt)	-26.3% (0.4 Mt)	76.0%
100% of the Group's active quarries with a biodiversity management plan by 2025	2025	28.0%	31.0%	N/A	28.0%

(1) *2021 data – not actualized in 2022.*

ENVIRONMENTAL MANAGEMENT	2022	2021	2020	GRI	SDG
Total environmental expenditure, of which:	**€217.7 M**	**€188.1 M**	**€156.4 M**		**9; 13**
a) Salaries and other payroll expenses for environmental officers	€35.3 M	€30.7 M	€26.6 M		13
b) Environmental certification and renewal costs (ISO 14001, EMAS or ISO 50001)	€2.9 M	€2.5 M	€2.5 M		13
c) Environmental taxes	€11.9 M	€8.8 M	€6.9 M		13
d) Insurance and warranties	€12.2 M	€12.0 M	€11.7 M		13
e) Environmental fines	€0.1 M	€0.5 M	€0.0 M		13
f) Cost of environmental incidents	€1.0 M	€1.4 M	€0.5 M		13
g) Cost of technical measures	€9.7 M	€9.5 M	€9.2 M		13
h) Environmental R&D budget	€129.5 M	€110.7 M	€86.4 M	3-3	9
i) Soil decontamination, site remediation and other clean-up costs	€15.0 M	€11.9 M	€12.6 M		9
Capital expenditure on environmental management measures	€224.0 M	€118.4 M	€91.2 M		13
Provisions for environmental risks	€204.1 M	€189.8 M	€156.1 M		13
Number of serious major Group environmental events or accidents	0	0	0		12
Number of "Environment" certified sites (ISO 140001 and / or EMAS)	608	593	610		
• Proportion of certified sites in scope of consolidation	79.0%	77.0%	77.0%		12; 13; 15
Number of sites certified for Energy management (ISO 50001)	161	152	158		
• Proportion of certified sites in scope of consolidation	23.0%	21.0%	20.0%		7; 12; 13
Number of quality-certified sites	659	630	636		
• Of which ISO 9001	596	568	579		
• Proportion of certified sites (across the total scope)	62.0%	60.0%	60.0%		9; 12; 13
Variation in production in sellable units	+3,4%	+7.9%	+5%		13

GHG EMISSIONS	2022	2021	2020	GRI	SDG
Target to reduce CO_2 emissions by 20% (scope 1 +2) at iso-production between 2010 and 2025	-26.0%	-21.7%	-12.2%	305-5	12; 13
Total CO_2 emissions (scopes 1+2)	9.8 Mt	10.3 Mt	10.4 Mt	305-1 & 2	12; 13
Change in total CO_2 emissions (scopes 1+2)	-0.5 Mt	-0.1 Mt	-0.4 Mt	305-5	12; 13
	-5.1%	-1.0%	-3.7%	305-5	12; 13
Direct CO_2 emissions (scope 1)	8.4 Mt	8.4 Mt	7.9 Mt	305-1	12; 13
Variation in direct CO_2 emissions	-0.01 Mt	+0.50 Mt	-0.20 Mt	305-5	12; 13
	-0.1%	+6.4%	-2.0%	305-5	12; 13
Other relevant direct emissions (for the entire Group or the relevant scope) of greenhouse gases, by weight (tons of CO_2 equivalent)	Not applicable	Not applicable	Not applicable	305-1	12; 13
Indirect GHG emissions (purchases of electricity, steam, hot water) (scope 2)	1.4 Mt CO_2-eq	1.9 Mt CO_2-eq	2.5 Mt CO_2-eq	305-2	12; 13
Change in indirect emissions of greenhouse gases (purchases of electricity, steam, hot water)	-0.5 Mt CO_2-eq	-0.6 Mt CO_2-eq	-0.1 Mt CO_2-eq	305-5	12; 13
	-27.0%	-22.9%	-4.0%	305-5	12; 13
Change in the CO_2 impact (scope 1+2) on Group revenue (value in 2017: 0,33 kg CO_2/€)	0.2 kg CO_2/€	0.2 kg CO_2/€	0.3 kg CO_2/€	305-4	12; 13
Change in the CO_2 impact (scopes 1+2) on Group Ebitda (value in 2017: 3,17 kg CO_2/€)	1.4 kg CO_2/€	1.7 kg CO_2/€	2.4 kg CO_2/€	305-4	12; 13
Other indirect GHG emissions (scope 3)*	21.3 Mt	21.3 Mt	17.4 Mt	305-3	12; 13
Share of revenue generated with products covered by verified LCA or EPD, excluding distribution activity (target : 100% by 2030)	47.9%	29.1%	N/A		12; 13

* *Scope 3 calculation methodology aligned with the Science-Based Targets commitment and the 2021 revision including an improvement in the impact assessment (see chapter 3, section 2.1.5.3).*

OTHER EMISSIONS INTO THE AIR	2022	2021	2020	GRI	SDG
Target to reduce SOx emissions by 20% between 2010 and 2025 at iso-production	-67.0%	-66.1%	-51.8%	305-7	7; 12; 13
SOx emissions	8,789 t	8,372 t	10,276 t	305-7	7; 12; 13
Target to reduce NOx emissions by 20% between 2010 and 2025 at iso-production	-33.0%	-32.4%	-15.7%	305-7	7; 12; 13
NOx emissions	18,257 t	16,906 t	16,988 t	305-7	7; 12; 13
Target to reduce dust emissions by 20% between 2010 and 2025 at iso-production	-64.0%	-57.1%	-53.0%	305-7	7; 12; 13
Dust emissions	4,705 t	4,731 t	4,817 t	305-7	7; 12; 13

ENERGY	2022	2021	2020	GRI	SDG
Target to reduce energy consumption by 15% between 2010 and 2025 at iso-production	-6.0%	-3.4%	+1.3%	302-4	7; 12
Total energy consumption of entire Group	41,854 GWh	43,461 GWh	41,020 GWh	302-1	7; 12
Change in the impact of energy consumed on Group revenue (value in 2017: 1.12 kWh/€)	0.82 kWh/€	0.98 kWh/€	1.08 kWh/€	302-3	7; 12
Change in total energy consumption	-1,606 GWh	2,441 GWh	954 GWh		
	-3.7%	+5.9%	-2.3%	302-4	7; 12
Total indirect energy consumption	8,273 GWh	8,389 GWh	8,000 GWh	302-2	7; 12
Change in indirect total energy consumption	-116 GWh	+369 GWh	+480 GWh		
	-1.4%	+4.6%	-5.7%	302-4	7; 12
Electricity consumption	8,240 GWh	8,309 GWh	7,891 GWh	302-1	7; 12
Consumption of renewable electricity generated on site	25 GWh	21 GWh	14 GWh	302-1	7; 12
Share of carbon-free electricity in total electricity consumption (target: two-fold increase between 2020 and 2021)[2]	51.9%	39.2%	18.9%	302-1	7; 12
Consumption of renewable energy (electricity purchases, electricity generated on site and biomass)	4,935 GWh	4,321 GWh	2,412 GWh	302-1	7; 12
Utilities consumption (steam, hot water, etc.)	33 GWh	40 GWh	95 GWh	302-1	7; 12
Total direct energy consumption	33,582 GWh	35,091 GWh	33,020 GWh	302-1	7; 12
Change in direct total energy consumption	-1,509 GWh	2,071 GWh	474 GWh	302-4	7; 12
	-4.3%	+6.3%	-1.4%	302-4	7; 12
Coal and coke consumption	2,586 GWh	2,540 GWh	3,422 GWh		7; 12
Natural gas consumption	27,465 GWh	29,505 GWh	27,039 GWh		7; 12
Petroleum products consumption	2,606 GWh	2,022 GWh	1,656 GWh		7; 12
Renewable energy consumption/total energy consumption	11.8%	10.0%	5.9%	302-3	7; 12
Sales outside the Group of renewable electricity generated on site	4 GWh	3 GWh	4 GWh		7; 12
Sales outside the Group of utilities (steam, hot water, etc.) produced on site	1.1 GWh	2.4 GWh	1.2 GWh		7; 12

(2) *Carbon-free electricity = renewable and nuclear electricity.*

WATER	2022	2021	2020	GRI	SDG
Target to reduce liquid water discharge by 80% between 2010 and 2025 at iso-production	-41.0%	-39.8%	-31.5%	303-4	6; 12
Total water withdrawal	45.0 M of m³	48.1 M of m³	45.4 M of m³	303-3	6; 12
Municipal water withdrawal	15.1 M of m³	15.3 M of m³	15.4 M of m³	303-3	6; 12
Surface water withdrawal	11.0 M of m³	12.7 M of m³	11.3 M of m³	303-3	6; 12
Ground water withdrawal	16.2 M of m³	17.4 M of m³	16.2 M of m³	303-3	6; 12
Water withdrawal from high water stress sites based on Aqueduct 2020 data	4.6 M of m³	4.7 M of m³	4.6 M of m³	303-3	6; 12
Surface water withdrawal on sites with very high water stress (sites with >5,000 m³ /year) based on Aqueduct 2020 data	2.9 M of m³	3.0 M of m³	2.5 M of m³	303-3	6; 12
Water withdrawal from sites with very high water stress based on Aqueduct 2016 database				303-3	6; 12
Total water discharge	21.6 M of m³	23.5 M of m³	23.0 M of m³	303-4	6; 12
Water discharges into the surrounding environment	14.6 M of m³	14.9 M of m³	14.4 M of m³	303-4	6; 12
Water discharges into the municipal waste water collection system	6.4 M of m³	7.0 M of m³	7.1 M of m³	303-4	6; 12
Water discharge on sites with very high water stress based on Aqueduct 2020 data	0.6 M of m³	0.8 M of m³	N/A	303-4	6; 12
Water discharges on sites with high water stress based on Aqueduct 2020 data	1.5 M of m³	1.5 M of m³	N/A	303-4	6; 12
Quantity of water reused in production processes through internal recycling systems	230.1 M of m³	274.3 M of m³	258.6 M of m³	303-5	6; 12
Percentage of water reused in production processes through internal recycling systems	84.0%	85.0%	85.0%	303-5	6; 12

CIRCULAR ECONOMY	2022	2021	2020	GRI	SDG
Target to reduce non-recovered waste by 50% between 2010 and 2025 at iso-production	-38.0%	-27.3%	-26.3%	306-4	9; 12; 13
Quantity of waste generated	1.3 Mt	1.4 Mt	1.4 Mt	306-3	9; 12; 13
Quantity of hazardous waste generated	0.1 Mt	0.1 Mt	0.1 Mt	306-3	9; 12; 13
Quantity of non-recovered waste	0.4 Mt	0.5 Mt	0.5 Mt	306-5	9; 12; 13
Quantity of non-recovered hazardous waste	0.0 Mt	0.04 Mt	0.04 Mt	306-5	9; 12; 13
Quantity of waste reused or recycled	0.9 Mt	1.0 Mt	1.0 Mt	306-4	9; 12; 13
Extraction of natural raw materials avoided*	9.4 Mt	10.0 Mt	10.0 Mt	301-1	9; 12; 13
Recycled materials included in the product	8.5 Mt	8.2 Mt	8.2 Mt	301-2	9; 12; 13
Percentage of recyclable packaging (target of 100% in absolute value by 2030)	91 %	69%	N/A	301-1	9; 12; 13

* *New methodology in 2021.*

BIODIVERSITY	2022	2021	2020	GRI	SDG
Percentage of the Group's active quarries with a biodiversity management plan (target of 100% by 2025)	28%	31%	N/A	304-1	15

Social

Thanks to the strong commitment of the teams, as demonstrated in the annual surveys conducted since 2019, with an impressive 84% industry-leading engagement rate, five points up from 2019, the Group made further strong social progress in 2022, confirming the pride, loyalty and satisfaction of its employees.

Take care of employees

- Continuous commitment to safety shown by an accident frequency rate (TRAR), including subcontractors and temporary workers, of 1.5, thus achieving the 2030 target in 2022;
- Completion of the roll-out of the "CARE by Saint-Gobain" social protection and prevention program for all Group employees.

Diversity

- Increase in gender diversity in management bodies, locally and at Group level;
- Continued increase in the proportion of female managers: 27.4% in 2022, in line with the target of 30% women managers set for 2025.

OBJECTIVES	Deadline	2022 data	2021 data	2020 data	Progress
Value of TRAR: 1.5 at the end of 2030 vs. 2017	2030	1.5	1.9	1.8	100%
100% of industrial sites covered by a chemical inventory (SAFHEAR) by 2025	2025	81.0%	66.0%	44.0%	81.0%
30% of women managers by 2025	2025	27.4%	26.3%	25.3%	91.3%
25% of women senior managers by 2025	2025	24.0%	21.0%	19.0%	96.0%
40% of women managers hires by 2025	2025	34.9%	34.9%	30.9%	87.0%
100% coverage of the CARE program by 2023	2023	100% of employees covered	88% of employees covered	71% of employees covered	100%
Employee engagement rate above benchmark every year (>74%)	Annual	84.0%	83.0%	82.0 %	OK
Maintain diversity index above 90%	Annual	91.8%	91.1%	90.7 %	OK

HEALTH – SAFETY	2022	2021	2020	GRI	SDG
Group accident frequency rate (TRAR) (employees, temporary workers and permanent subcontractors)	1.5	1.9	1.8	403-9	3; 8
Total recordable accident rate with and without lost time of more than 24 hours (employees, temporary workers and permanent subcontractors)	1.0	1.3	1.2	403-9	3; 8
Group accident severity rate (employees)	0.05	0.05	0.08	403-10	3; 8
Number of fatal incidents connected with the work of Saint-Gobain employees	2	4	1	403-9	3; 8
Number of fatal incidents connected with the work of subcontractors	1	1	1	403-9	3; 8
Number of fatal incidents connected with the work of temporary workers	0	0	1	403-9	3; 8
Number of fatal incidents connected with the work of third parties	0	0	0	403-9	3; 8
Percentage of industrial sites covered by a chemical inventory (SAFHEAR) (target of 100% by 2025)	81.0%	66.0%	44.0%	403-8	3; 8
Number of Health & Safety certified sites at the actual scope (OHSAS 18001 – ILO OSH 2001 – ISO 45001)	387	359	359	403-8	3; 8
Percentage of employees covered	32.0%	27.0%	28%	403-8	3; 8
Percentage of sites offering medical inspections at comparable scope	82.0%	83.0%	81%		3; 8
Number of occupational illnesses in France	80	60	61	403-10	3; 8
Absenteeism rate	4.0 %	3.9 %	3.7 %		3; 8
Education, training, advising, prevention and risk control programs to assist employees in the event of severe illness	YES	YES	YES		3; 8
Extension of the program to families	Advice and assistance in case of severe accident	Advice and assistance in case of severe accident	Advice and assistance in case of severe accident	403-1	3; 8
Extension of the program to communities	Sometimes in collaboration with asso-ciations	Sometimes in collaboration with asso-ciations	Sometimes in collaboration with asso-ciations	403-1	3; 8
Proportion of health and safety signed and active agreements with employee representatives*	25.9%	23.2%	8.8%	403-4	3; 8

* *Value includes all active agreements that include a health and safety dimension.*

EMPLOYMENT	2022	2021	2020	GRI	SDG
Number of employees					
Total headcount at 31 December	167,665	165,871	167,552	2-7	8
Percentage of Blue Collar	41.0%	41.1%	40.8%	2-7	8
Average headcount (number of employees)					
Average headcount including temporary workers	177,379	176,037	176,895	2-7	8
Average headcount excluding temporary workers	168,726	166,464	168,177	2-7	8
Average temporary headcount	8,653	9,573	8,718	2-7	8
Spot headcount at year-end					
Headcount at year-end including temporary workers	175,792	173,591	176,677	2-7	8
Permanent contracts in absolute value	150,386	149,718	152,842	2-7	8
Percentage of permanent contracts in the headcount excluding temporary workers	93.6%	93.4%	94.3%	2-7	8
Fixed-term contracts in absolute value	10,325	10,585	932	2-7	8
Percentage of fixed-term contracts in the headcount excluding temporary workers	6.4%	6.6%	5.7%	2-7	8
Temporary headcount	8,127	7,720	9,125	2-7	8
Temporary working hours rate	4.6%	5.2%	4.7%	2-7	8
Percentage of temporary employees (fixed-term employees and temporary workers)	10.8%	10.8%	10.6%	2-7	8
Full-time equivalent (FTE) headcount, excluding temporary workers	155,685	155,619	155,153	2-7	8
Organization of working time					
Percentage headcount at Full-time employment	95.5%	95.4%	95.7%	2-7	8
Percentage headcount at Part-time employment	4.5%	4.6%	4.3%	2-7	8
Overtime rate	4.9%	4.3%	3.5%	2-7	8
Breakdown of headcount by age in absolute value					
<=24 years old	11,538	11,663	10,455	405-1	8; 10
25-34 years old	38,275	37,872	37,216	405-1	8; 10
35-44 years old	43,726	43,168	43,609	405-1	8; 10
45-54 years old	38,853	39,225	41,396	405-1	8; 10
55-64 years old	24,308	23,360	23,553	405-1	8; 10
> 64 years old	1,556	1,515	1,376	405-1	8; 10
Breakdown of employees by geographical region					
North America	9.7%	9.6%	9.0%	2-7	8
South America	13.7%	13.9%	12.8%	2-7	8
Asia-Pacific	11.3%	10.5%	10.4%	2-7	8
Northern Europe	33.4%	35.1%	34.6%	2-7	8
Southern Europe, Middle East, Africa	31.9%	30.9%	33.2%	2-7	8
Breakdown of headcount by country (most significant countries)					
France	23.5%	22.7%	23.9%	2-7	8
United Kingdom	8.2%	9.3%	9.4%	2-7	8
United States	9.0%	8.8%	8.3%	2-7	8
Brazil	7.5%	8.1%	7.7%	2-7	8
Germany	5.2%	5.3%	5.5%	2-7	8
India	4.1%	4.5%	4.3%	2-7	8
Mexico	4.8%	4.4%	3.9%	2-7	8
Poland	4.9%	4.3%	3.9%	2-7	8
China	3.5%	3.3%	3.7%	2-7	8
Norway	3.3%	3.2%	3.1%	2-7	8
Czech Republic	2.7%	2.6%	2.6%	2-7	8
Sweden	2.6%	2.5%	2.5%	2-7	8
Annual change in headcount by country (most significant countries)					
France	4.6%	-6.0%	-0.8%	2-7	8

EMPLOYMENT	2022	2021	2020	GRI	SDG
United States	+2.5%	+5.8%	-1.1%	2-7	8
United Kingdom	-10.7%	-1.7%	-4.8%	2-7	8
Brazil	-6.1%	+3.0%	+1.5%	2-7	8
Germany	-2.0%	-4.3%	-8.7%	2-7	8
India	+16.1%	+9.6%	-0.6%	2-7	8
Mexico	+10.4%	+12.0%	+14.7%	2-7	8
Poland	-8.6%	+2.4%	-2.0%	2-7	8
China	+7.7%	-12.5%	-1.5%	2-7	8
Norway	+5.7%	+2.2%	-1.5%	2-7	8
Czech Republic	+2.2%	+1.6%	-0.6%	2-7	8
Sweden	+5.1%	+1.2%	-0.7%	2-7	8
Average temporary headcount					
Breakdown by geographical region					
North America	4.8%	4.6%	4.6%	2-7	8
South America	9.0%	13.7%	15.0%	2-7	8
Asia-Pacific	27.2%	22.4%	24.6%	2-7	8
Northern Europe	21.3%	21.5%	18.5%	2-7	8
Southern Europe, Middle East, Africa	37.7%	37.8%	37.3%	2-7	8

HIRING	2022	2021	2020	GRI	SDG
Hires	33,663	33,268	22,021	401-1	8
Hiring rate	20.7%	20.6%	13.6%	401-1	8
Breakdown of new hires by type of contract					
External hires: permanent contract hires in absolute value	23,035	22,016	12,988	401-1	8
External hires: percentage of permanent hires	68.4%	66.2%	59.0%	401-1	8
External hires: fixed-term contract hires in absolute value	10,628	11,252	9,033	401-1	8
External hires: percentage of hires on fixed-term contracts	31.6%	33.8%	41.0%	401-1	8
Internal hires: fixed-term contracts converted to permanent contracts in absolute value	3,803	4,673	3,422	2-7	8
Internal hires: percentage of fixed-term employment contracts converted into permanent contract	36.2%	44.4%	38.2%	2-7	8
Hiring rate by gender					
Men	72.5%	73.1%	72.9%	401-1	5; 8; 10
Women	27.5%	26.9%	27.1%	401-1	5; 8; 10
Breakdown of executive recruitment by gender					
Men	65.1%	65.1%	69.1%	401-1	5; 8; 10
Women	34.9%	34.9%	30.9%	401-1	5; 8; 10
Breakdown of hires by age					
≤ 24 years old	27.6%	27.8%	29.4%	401-1	8; 10
25-34 years old	34.3%	35.6%	35.4%	401-1	8; 10
35-44 years old	21.0%	20.8%	20.3%	401-1	8; 10
45-54 years old	12.0%	11.5%	11.1%	401-1	8; 10
55-64 years old	4.6%	3.9%	3.4%	401-1	8; 10
> 64 years old	0.5%	0.4%	0.4%	401-1	8; 10
Breakdown of hires by geographical region					
North America	14.1%	13.7%	8.7%	401-1	8
South America	16.0%	17.2%	20.4%	401-1	8
Asia-Pacific	11.3%	10.3%	8.3%	401-1	8
Northern Europe	32.4%	31.8%	32.7%	401-1	8
Southern Europe, Middle East, Africa	26.2%	27.0%	29.9%	401-1	8

DEPARTURES	2022	2021	2020	GRI	SDG
Departures on permanent and fixed-term contracts	29,632	27,852	22,708	401-1	8
• Of which layoffs	8,609	7,573	7,142	401-1	8
• Of which resignations	13,966	13,792	9,158	401-1	8
• Including others (retirements and end of contract)	7,057	6,487	6,408	401-1	8
Breakdown of departures by gender					
Men	73.9%	74.6%	74.4%	401-1	5; 8; 10
Women	26.1%	25.4%	25.6%	401-1	5; 8; 10
Breakdown of departures by age					
≤ 24 years old	18.6%	16.9%	16.8%	401-1	8; 10
25-34 years old	31.9%	31.6%	30.1%	401-1	8; 10
35-44 years old	21.7%	21.8%	22.1%	401-1	8; 10
45-54 years old	13.7%	15.0%	13.8%	401-1	8; 10
55-64 years old	11.6%	12.2%	14.2%	401-1	8; 10
> 64 years old	2.5%	2.5%	3.0%	401-1	8; 10
Breakdown of departures by geographical region					
North America	14.4%	13.4%	9.7%	401-1	8
South America	19.6%	15.6%	15.4%	401-1	8
Asia-Pacific	8.7%	8.9%	9.2%	401-1	8
Northern Europe	30.2%	32.8%	32.4%	401-1	8
Southern Europe, Middle East, Africa	27.1%	29.3%	33.3%	401-1	8

LAYOFFS	2022	2021	2020	GRI	SDG
Rate of layoffs of permanent and fixed-term contracts	5.3%	4.7%	4.4%	401-1	8
Breakdown of layoffs by type of contract					
Permanent contract	83.5%	88.4%	90.9%	401-1	8
Fixed-term contract	16.5%	11.6%	9.1%	401-1	8
Breakdown of manager layoffs by gender					
Men	71.9%	71.5%	75.8%	401-1	5; 8; 10
Women	28.1%	28.5%	24.2%	401-1	5; 8; 10
Breakdown of layoffs by geographical region					
North America	20.9%	19.7%	13.4%	401-1	8
South America	29.6%	27.7%	28.9%	401-1	8
Asia-Pacific	3.5%	3.6%	5.7%	401-1	8
Northern Europe	19.8%	27.2%	35.2%	401-1	8
Southern Europe, Middle East, Africa	26.2%	21.8%	16.8%	401-1	8

RESIGNATIONS	2022	2021	2020	GRI	SDG
Resignation rate, permanent and fixed-term	8.6%	8.5%	5.6%	401-1	8
Breakdown of resignations by gender					
Men	73.1%	72.8%	72.9%	401-1	5; 8; 10
Women	26.9%	27.2%	27.1%	401-1	5; 8; 10
Breakdown of resignations by seniority					
Less than 1 year	36.5%	36.7%	35.0%	401-1	8
1-4 years old	39.8%	38.4%	40.7%	401-1	8
5-14 years old	18.4%	18.5%	17.9%	401-1	8
15-24 years old	4.2%	5.3%	4.8%	401-1	8
25-34 years old	0.9%	0.8%	1.1%	401-1	8
> 34 years old	0.2%	0.3%	0.5%	401-1	8

DIVERSITY	2022	2021	2020	GRI	SDG
Diversity index (objective to maintain above 90%)	91.8%	91.1%	90.7%	405-1	5; 8; 10
Gender diversity*					
Percentage of women in the headcount:					
Percentage of women in the headcount at the end of the year	23.7%	23.3%	22.8%	405-1	5; 8; 10
Percentage of women on fixed-term contracts at the end of the year	31.9%	31.1%	28.9%	405-1	5; 8; 10
Percentage of women in the average headcount	23.5%	23.0%	22.6%	405-1	5; 8; 10
Percentage of women on fixed-term contracts in the average headcount	32.1%	29.5%	28.2%	405-1	5; 8; 10
Percentage of women in management:					
Senior management (target of 25% by 2025)	24.0%	21.0%	19.0%	405-1	5; 8; 10
Management (female managers in the total managerial headcount)	27.4%	26.3%	25.3%	405-1	5; 8; 10
Promotion of female managers among all management promotions	32.4%	31.4%	33.7%	405-1	5; 8; 10
Hiring rate of women managers (target of 40% by 2025)	34.9%	34.9%	30.9%	401-1	5; 8; 10
** indicators regarding executive and board diversity are included in the governance tab*					
Equal treatment					
Ratio of average basic wage: female to male	0.95	0.94	0.94	405-2	5; 8; 10
Ratio of average total compensation: female to male	0.92	0.91	0.92	405-2	5; 8; 10
Percentage of women in the top pay quartile	18.8%	18.0%	18.6%	405-2	5; 8; 10
Percentage of women in the upper middle pay quartile	21.1%	20.1%	19.7%	405-2	5; 8; 10
Percentage of women in the lower middle pay quartile	22.3%	22.4%	23.0%	405-2	5; 8; 10
Percentage of women in the lower pay quartile	24.0%	24.2%	23.3%	405-2	5; 8; 10
Generational diversity					
Breakdown of headcount by age in absolute value					
<=24 years old	7.3%	7.4%	6.6%	405-1	8; 10
25-34 years old	24.2%	24.2%	23.6%	405-1	8; 10
35-44 years old	27.6%	27.5%	27.7%	405-1	8; 10
45-54 years old	24.5%	25.0%	26.3%	405-1	8; 10
55-64 years old	15.4%	14.9%	14.9%	405-1	8; 10
> 64 years old	1.0%	1.0%	0.9%	405-1	8; 10
Breakdown of headcount by seniority					
Less than 1 year	13.8%	14.0%	9.4%	405-1	8; 10
1-4 years old	28.6%	27.9%	29.9%	405-1	8; 10
5-14 years old	28.9%	29.4%	30.7%	405-1	8; 10
15-24 years old	18.7%	18.3%	18.8%	405-1	8; 10
25-34 years old	7.5%	7.8%	8.5%	405-1	8; 10
> 34 years old	2.5%	2.6%	2.7%	405-1	8; 10
Disability					
Proportion of disabled employees within the Group	1.9%	1.6%	1.6%	405-1	8; 10

TALENT DEVELOPMENT	2022	2021	2020	GRI	SDG
Training					
Proportion of payroll of training investment	0.44%	0.40%	0.33%		4
Employees who received training during the year (target of 100% by 2025)	89.2%	85.0%	73.2%	404-1	4
Average number of training hours per employee per year	17,2 hours	14.6 hours	12.1 hours	404-1	4
Average number of training hours per employee per year and by gender (M/F)	16,7 hrs / 18,7 hrs	14.3 hrs/15.2 hrs	12.2 hrs/12.1 hrs	404-1	4
Share of technical and EHS training	64.2%	61.0%	56.1%	404-1	4

EMPLOYEE'S ENGAGEMENT	2022	2021	2020	GRI	SDG
Annual employee satisfaction survey (me@Saint-Gobain):					
Participation rate	84.0%	81.0%	78.0%		3; 8
Engagement rate (target above benchmark every year)	84.0%	83.0%	82.0%		3; 8
Recommendation rate	86.0%	85.0%	84.0%		3; 8
Annual reviews					
Proportion of employees who had annual reviews	64.0%	64.1%	61.7%	404-3	8
Proportion of non-managers who had annual reviews	58.1%	58.1%	55.3%	404-3	8
Proportion of managers who had annual reviews	91.0%	92.1%	91.7%	404-3	8
Social dialogue					
Percentage of employees with employee representation	68.3%	71.0%	68.2%	2-30	8; 16
Percentage of Group employees covered by a collective bargaining agreement	67.5%	68.0%	65.5%	2-30	8; 16
Number of collective agreements with employee representatives	3,109	2,941	2,638	2-30	8; 16
Minimum prior notice period before any organizational change	two weeks to several months, depending on the country	two weeks to several months, depending on the country	two weeks to several months, depending on the country	402-1	8; 16

"CARE BY SAINT-GOBAIN" SOCIAL PROTECTION PROGRAM *(% of employees covered)*	2022	2021	2020	GRI	SDG
CARE program coverage in number of employees covered (target of 100% by 2023)	100.0%	88.0%	71.0%	403-6	1; 3; 8; 10

Ethics and communities

In terms of inclusive growth and business ethics, significant progress has been made in areas such as:

- 98% of managers trained in the Saint-Gobain Code of Ethics; nearly 99% of managers trained in anti-corruption and competition rules;
- ESG weight reaches 10% in short-term compensation (CO_2 emissions reduction criterion added to the safety criterion in 2021) and 20% in long-term compensation (increase of the share of CO_2 emissions reduction criterion from 5% to 10% in 2021, along with criteria based on safety and diversity, each accounting for 5%);
- Continued support for education, vocational training and training in the construction sector (see Chapter 3, section 3.2.4).

Objectives	Deadline	2022 data	2021 data	2020 data	Progress
30% of women on the Group Executive Committee by 2025	2025	37.5%	37.5%	25.0%	125.0%
30% of women on the Executive Committees of Business Units by 2025	2025	26.5%	24.0%	N/A	88.3%
100% of responsible timber purchases by 2025	2025	95.7%	93.4%	94.8%	95.7%
100% of countries have a community assistance program by 2025	2025	84.0%	67.0%	50.0%	84.0%
100% of new managers are trained to the code of ethics in their induction year every year	Annual	95.8%	95.0%	97.0%	95.8%

GROUP VALUES	2022	2021	2020	GRI	SDG
Adhere training: training of new managers in the code of ethics (Principles of Conduct and Action) in their first year (target of 100% per year)	95.8%	95.0%	97.0%		4
Adhere training: training for all managers	97.9%	96.9%	97.0%		4
Human rights					
Number of incidents involving forced or compulsory labor	0	0	0	409-1	8; 16
Number of incidents involving union freedom	0	1	1	407-1	8; 16
Other incidents involving human rights, including child labor	0	0	0	408-1	8; 16
Reports received through the occupational whistle-blowing system	845	645	477	2-16	8; 16
Anticorruption					
ACT training: training of managers in their first year	98.2%	95.0%	94.0%	205-2	4; 16
ACT training: share of managers trained	98.6%	98.0%	94.0%	205-2	4; 16
Number of proven cases of corruption	0	0	0	205-3	8; 16
Respect for the law					
Online training Comply (anti-trust laws): proportion of managers trained in the 1st year after joining the Group	98.0%	93.0%	96.0%		4; 16
Online training Comply (anti-trust laws): share of managers trained	98.5%	98.0%	96.0%		4; 16
Major fines for non-compliance with laws and regulations	0	0	0	206-1	8; 16
Number of non-financial penalties for violation of laws and regulations	0	0	0	206-1	8; 16

FIGHT AGAINST DISCRIMINATION AND HARASSMENT	2022	2021	2020	GRI	SDG
Number of incidents declared	**72**	**54**	**60**	**406-1**	**8; 10**
Discrimination of which	**51**	**35**	**38**	**406-1**	**8; 10**
Ethnic origin	9	6	5	406-1	8; 10
Disability	2	5	10	406-1	8; 10
Gender	4	3	7	406-1	5; 8; 10
Age	7	2	N/A	406-1	8; 10
Sexual orientation	2	2	N/A	406-1	5; 8; 10
Family status	2	1	N/A	406-1	8; 10
Freedom of association	4	1	1	406-1	8; 10
Other causes	21	15	17	406-1	8; 10
Harassment	**21**	**19**	**20**	**406-1**	**8; 10**
of which sexual harassment	11	8	5	406-1	8; 10

* *Methodology update.*

RESPONSIBLE PURCHASING	2022	2021	2020	GRI	SDG
Trade suppliers and outside subcontractors					
Percentage of contracts with European partners that include the Suppliers Charter	100.0%	100.0%	100.0%		9; 12
Proportion of suppliers per CSR performance level (evaluation includes in particular human rights, working conditions, fight against corruption, against forced labor, against child labor, etc.) as a percentage of revenue					
Percentage of so-called “risky” purchases following risk mapping: 27.0%					
Percentage of so-called “risky” purchases evaluated in terms of CSR: 92.2%					
Proportion of document reviews concluding on a “critical” CSR performance	3.3%	2.9%	5.1%	414-2	9; 12
Proportion of document reviews concluding on a “to be improved” CSR performance	18.8%	17.5%	11.1%	414-1	9; 12
Proportion of document reviews concluding on an “effective” CSR performance	77.9%	79.6%	83.7%	414-1	9; 12
Results of onsite audits of own-brand suppliers evaluated in terms of CSR					
Proportion of onsite audits concluding on a “critical” CSR performance	—%	0.5%	1.9%	414-2	9; 12
Proportion of onsite audits concluding on a “to be improved” CSR performance	40.6%	57.9%	35.2%	414-1	9; 12
Proportion of onsite audits concluding on an “effective” CSR performance	59.4%	41.6%	63.0%	414-1	9; 12
Responsible timber purchases	95.7%	93.4%	94.8%		8; 9; 12; 15
Non-trade suppliers and outside contractors					
Total non-trade purchases covered by the Suppliers Charter (eligible perimeter)	92.7%	91.3%	90.6%		9; 12
Proportion of suppliers per CSR performance level (evaluation includes in particular human rights, working conditions, fight against corruption, forced labor, child labor, etc.) as a percentage of revenue					
Percentage of so-called “risky” purchases following risk mapping: 21.5%					
Percentage of so-called “risky” purchases evaluated in terms of CSR: 74.5%					
Proportion of document reviews concluding on a “critical” CSR performance	11.8%	14.0%	22.6%	414-2	9; 12
Proportion of document reviews concluding on a “to be improved” CSR performance	30.9%	35.0%	32.2%	414-1	9; 12
Proportion of document reviews concluding on an “effective” CSR performance	57.2%	51.0%	45.3%	414-1	9; 12
Proportion of onsite audits concluding on a “critical” CSR performance	10.7%	18.5%	5.2%	414-2	9; 12
Proportion of onsite audits concluding on a “to be improved” CSR performance	20.7%	16.5%	38.5%	414-1	9; 12
Proportion of onsite audits concluding on an “effective” CSR performance	68.6%	65.0%	56.4%	414-1	9; 12

* *Methodology update.*

LOCAL IMPACT	2022	2021	2020	GRI	SDG
Support to local communities					
Investments in projects	13.4 M€	15.1 M€	9.9 M€	413-1	1; 4; 8; 10; 11
Percentage of countries with a community assistance program (target of 100% by 2025)	84.0%	67.0%	50.0%	413-1	1; 4; 8; 10; 11

EXECUTIVE COMMITTEES DIVERSITY	2022	2021	2020	GRI	SDG
Group Executive Committee (target of 30% by 2025)	37.5%	37.5%	25.0%	405-1	5; 8; 10
Executive Committees Business Units (target of 30% by 2025)	26.5%	24.0%	N/A	405-1	5; 8; 10

GROUP SAVINGS PLAN	2022	2021	2020	GRI	SDG
Proportion of shares held by employees through the Group Savings Plan	8.8%	8.3%	9.1%	401-2	8
Number of countries participating in the Group Savings Plan	53	48	46	401-2	8
Group Savings Plan coverage rate for the entire Group headcount	96.9%	95.5%	88.1%	401-2	8

4.2.3 INTEGRATION OF THE UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS

To embed the Sustainable Development Goals (SDGs) within its CSR approach, Saint-Gobain draws upon the materiality analysis (see chapter 2, section 1.3.2), the Group's stakeholder dialog and its understanding of its value chain. Saint-Gobain generally actively follows the debates on SDGs and reporting, especially the working group initiated by the Global Compact. The 17 SDGs were subdivided into different levels: SDGs aligned with the strategy, moderately aligned SDGs (limited scope of influence or associated with a specific activity) and non-priority SDGs where the Group has little or no impact.

SDG 9	SDGs aligned with the strategy
SDG 14	SDGs moderately aligned with the strategy
SDG 15	Non-priority SDGs

The Group is especially committed to 14 Sustainable Development Goals aligned with the strategy:

		SDG 9	Engaging Saint-Gobain's innovation at the service of sustainable development and the circular economy
Creating inclusive growth in the countries where Saint-Gobain operates	SDG 1	SDG 10	Being inclusive by encouraging equal opportunities
Implement actions according to the local context	SDG 2	SDG 11	Offering sustainable and affordable solutions that are adapted to the lifestyle changes associated with increasing urbanization
Promoting healthy lives and support the well-being of all at all ages	SDG 3	SDG 12	Changing the way in which the Group designs, produces and distributes its products and solutions to develop the circular economy
Promoting learning opportunites throughout life	SDG 4	SDG 13	Contributing to the emergence of low-carbon economies capable of preserving the common good
Being inclusive by encouraging equal opportunities	SDG 5	SDG 14	Implement actions according to the local context
Ensuring a sustainable management of water resources	SDG 6	SDG 15	Managing and reducing Saint-Gobain's impact on biodiversity
Using the Group's potential for local consumption to foster the development of local renewable energy networks	SDG 7	SDG 16	Sharing the Group's values with its stakeholders
Creating conditions guaranteeing quality jobs for the Group's employees	SDG 8	SDG 17	Behaving like a corporate citizen in each country

SDG 1

No poverty

Creating inclusive growth in the countries where it operates:

- for employees: the Group ensures fair compensation to its employees (see chapter 3, section 3.2.3);
- for local communities: Saint-Gobain contributes to economic development, improving access to decent housing and local employment (see chapter 3, section 3.2.4).

SDG 3

Good health and well-being

Ensure healthy lives and promote well-being for all at all ages:

- for employees: health and safety are central to Saint-Gobain's environmental, health and safety Charter and are top priorities at the heart of its corporate culture (see chapter 3, section 3.1.3. C);
- for suppliers: the Group encourages its suppliers to improve the workplace health and safety of its employees through its Responsible Purchasing policy (see chapter 3, section 3.1.2. B);
- for customers: one of the Group's priorities is to design convenient, sustainable products (see chapter 3, section 3.1.3. b and 3.1.4. A);
- for local communities: in the context of emergency situations, Saint-Gobain's local teams are mobilized to assist the populations affected. In 2022, Saint-Gobain's teams in Poland took action to welcome Ukrainian refugees (see chapter 3, section 3.2.4. A).

SDG 4

Quality education

Promote lifelong learning opportunities:

- for employees: Saint-Gobain's ambition is to be a benchmark employer, known and recognized for the wealth of career paths it offers. Saint-Gobain is committed to facilitating access to training for all its employees, using formats that meet their needs and expectations (see chapter 3, section 3.2.3);
- for customers: the Group develops training programs for customers' employees, some of which lead to certification (see chapter 3, section 3.2.4);
- for local communities: the Group maintains relationships with local partners in many countries where it operates to boost local employment and support disadvantaged populations with their career aspirations. Saint-Gobain also contributes to major societal issues through sponsorship and philanthropy (see chapter 3, section 3.2.4);
- for civil society: support for young people is a priority in all countries where the Group operates, particularly the professional integration of young adults in difficulty in the construction industry through the Build Change program (see chapter 3, section 3.2.4).

SDG 5

Gender equality

Be inclusive by promoting equal opportunities:

- for employees: Saint-Gobain is working to create an environment that fosters fairness and equality, which are essential for genuine professional development, while facilitating the formation and cohesion of high-performance operational teams. Exemplary management and a policy of equal treatment in recruitment, professional training and compensation are the main levers for action (see chapter 3, section 3.2.2. C);
- for civil society: Saint-Gobain is working to promote a more inclusive environment through its membership of the UN's Women Empowerment Principles (WEPs). The Group has also been listed in the Bloomberg Gender Equality Index for 2022 for the fifth consecutive year (see chapter 3, section 3.2.2. C);
- for local communities: the Saint-Gobain India Foundation has set itself the task of improving the living conditions of the most underprivileged by supporting education-related projects, in particular by accompanying approximately 9,500 young girls (see chapter 3, section 3.2.4).

SDG 6

Clean water and sanitation

Ensure sustainable management of water:

- for civil society: reduce the impacts of the Group's activities on water resources as much as possible, whether in terms of intake or discharge. The long-term objectives are to withdraw as little water as possible and aim for "zero discharge" of industrial water in liquid form while avoiding generating new impacts for other natural environments and/or for other stakeholders (see chapter 3, section 3.1.3. D. b);
- for suppliers: the Group pays particular attention to the quality of its supplies and the suppliers' performance in terms of sustainable resource management. Risks related to purchasing categories include environmental performance and in particular those related to water (see chapter 3, section 3.1.2.B.);
- for local communities: manage these issues locally. The needs and risks related to water access for local populations are systematically taken into account in the Group's action plans. (see chapter 3, section 3.1.3.D.b).

SDG 7

Clean and affordable energy

Use our potential for local consumption to foster the development of local renewable energy networks:

- for civil society: Saint-Gobain is a member of the ETC (Energy Transition Commission), whose aim is to accelerate the transition to a low-carbon energy system (see chapter 3, section 3.3.1).

SDG 8

Decent work and economic growth

Create conditions guaranteeing quality jobs for our employees:

- for employees: the development of a T.E.C. (Trust, Empowerment, Collaboration) culture is an important catalyst for successful employee development (see chapter 3, section 3.2.3). All of the actions undertaken have made it possible to achieve a record employee engagement index of 84% in 2022, with 86% of employees considering their working conditions to be good (see chapter 2, section 2.3.6);
- for suppliers: the Group's suppliers are committed to ensuring decent working conditions. For suppliers: the Group's suppliers are committed to ensuring decent working conditions. Ethical criteria on human rights, working conditions and compliance with standards, health and safety and the environment are integrated into the purchasing process (see chapter 3, section 3.1.2).

SDG 9

Industry, innovation and infrastructure

Put our innovation to work for sustainable development and a circular economy:

- for employees: to develop solutions that anticipate market trends, the Group has introduced an innovation approach that integrates the challenges of sustainable development. It is thanks to innovation and the evaluation of the performance of solutions that the group is able to increase the avoidance of CO_2 emissions and to adapt its offer to the new opportunities linked to a fair and sustainable transition (see chapter 3, section 3.1);
- for civil society: Saint-Gobain has been a member of the WBCSD Board with responsibility for "climate, energy, the circular economy, towns and cities, and mobility" since 2017 (see chapter 3, section 3.3.1).

SDG 10

Reduced inequalities

Be inclusive by promoting equal opportunities:

- for employees: Saint-Gobain is working to create an environment conducive to fairness and equality, which is crucial to employees' professional growth, while fostering training and the cohesion of high-performance operational teams (see chapter 3, section 3.2.2. C);
- for local communities: wherever it is present, the Group is committed to promoting inclusion and diversity in all its forms: gender, nationalities, training, career paths, generational diversity, disabilities and ethnic and social origins (see chapter 3, section 3.2.2).

SDG 11

Sustainable cities and communities

Offer sustainable and affordable solutions in response to lifestyle changes in line with increasing urbanization:

- for customers: for Saint-Gobain, it is imperative to design sustainable solutions and to contribute to the construction of resilient cities, guaranteeing the well-being of individuals in a context of increasing resource scarcity and climate change (see chapter 3, section 3.3.2);
- for civil society: at the local level, the Group is forging partnerships with many players who share the same desire to promote more sustainable buildings. The Green Building Councils (GBC), a unique global network of national associations of construction professionals and players, are a key partner. (see chapter 3, section 3.3.1).

SDG 12

Responsible consumption and production

Change the way we design, produce and distribute products and solutions to develop the circular economy:

- for employees: the Climate Academy is a series of training courses made available to Saint-Gobain employees to inform them about the risks associated with climate change and to help them respond to environmental challenges (see chapter 3, section 3.3.1);
- for customers: Saint-Gobain designs, produces and distributes sustainable solutions that must adapt to new modalities: integrating more recycled or renewable materials to reduce the consumption of virgin raw materials and the consequences of their exploitation, in particular on biodiversity; extending the lifespan of products to reduce their environmental impact; facilitating the recycling or reuse of products at the end of their life cycle to succeed in satisfying the needs of the markets with a limited impact on natural resources (cf. chapter 3, section 3.4.2);

- for local communities: the sustainable resource management policy aims to promote responsible resource management in order to foster the transition to a circular economy. For example, the Group is committed through a policy called "Wood Purchasing" to fight deforestation by acting ethically and responsibly in the Group's value chain to preserve forests, the local populations living in them and biodiversity (see chapter 3, section 3.1.2. D. d).

SDG 13

Climate action

Contribute to the emergence of a sustainable economy aligned with the Paris Agreement:

- for customers: the innovative solutions developed by Saint-Gobain to improve the energy efficiency of buildings make it possible to reduce both the negative impact of construction on the climate and the energy bills of occupants, while at the same time improving their well-being (see chapter 3, section 3.3.2);
- for civil society: Saint-Gobain's ambition is to foster the emergence of a fair, sustainable economy aligned with the Paris Agreement in the countries where it operates (see chapter 3, section 3.3.1);
- for investors: Saint-Gobain is aligned with the recommendations of the Task Force on Financial Disclosure (TCFD) (see chapter 3, section 3.3.2) and published its first ESG Information Pack in 2022 (see chapter 2, section 2.1.3);
- for regulatory authorities: the Group takes part in the public debate on climate change (see chapter 3, section 3.2.1. B);
- for suppliers: the scope 3 control program involves suppliers in the negotiations conducted by the purchasing teams (see chapter 3, section 3.3.3). At the same time, Saint-Gobain encourages suppliers to reduce their carbon footprint through its Responsible Purchasing policy (see chapter 3, section 3.1.2. B).

SDG 16

Peace, justice and strong institutions

Share the Group's values with the stakeholders:

- for employees: the Group's responsible approach is based on its Code of Ethics: the Principles of Conduct and Action (see chapter 3, section 3.1.5);
- for suppliers: the Responsible Purchasing approach incorporates suppliers' compliance with the Suppliers Charter, based on the Principles of Conduct and Action (see chapter 3, section 3.1.5);
- for civil society: compliance with the law, the principles of the Code of Ethics and respect for human rights constitute the Group's fundamental values (see chapter 3, section 3.1.5).

SDG 17

Partnerships to achieve the objectives

Promote multi-stakeholder cooperation:

- for employees: through its commitments, the Group ensures decent working conditions and fights against practices that do not comply with its Code of Ethics and its human rights policy (see chapter 3, section 3.2.1. A);
- for suppliers: Saint-Gobain also encourages its partners, particularly its suppliers, to commit to the ten principles of the United Nations Global Compact (see chapter 3, section 3.2.1);
- for regulatory authorities: the Group participates in the public debate on the major issues it faces, such as climate change or the transition to a circular economy (see chapter 3, section 3.2.1. B);
- for civil society: through its positions, commitments and partnerships, Saint-Gobain is working towards a fair and sustainable transition (see chapter 3, section 3.3).

5

CORPORATE GOVERNANCE

5.1 COMPOSITION AND OPERATION OF THE GOVERNING BODIES

The following sections 5.1.1 p. 156 and 5.1.2 p. 171 prepared with the assistance of the Board's Nomination and Remuneration Committee and the Lead independent Director, hereby report, pursuant to Articles L. 225-37 et seq. and L. 22-10-10 et seq. of the French Commercial Code, the composition of the Board and the conditions for the preparation and organization of the Board's works (see section 5.4 p. 216 for the entire report of the Board of Directors on corporate governance).

Compliance with the AFEP-MEDEF Corporate Governance Code

Compagnie de Saint-Gobain refers to and complies with the AFEP-MEDEF Corporate Governance Code for French listed companies in its updated version of December 2022, which may be found on the AFEP website at the following address: www.afep.com

The Company's practices comply with all recommendations contained in the AFEP-MEDEF Code (the "AFEP-MEDEF Code").

AFEP-MEDEF Code recommendation revoked	Saint-Gobain practice and justification
None	None

5.1.1 COMPOSITION OF THE BOARD OF DIRECTORS

Members of the Board of Directors

The Board of Directors consists of the 14 members named below, appointed for four-year terms, including one Director representing employee shareholders and two Employee Directors, appointed in accordance with the law, and one Lead independent Director, in charge of overseeing the efficient running of the Company's governance bodies.

73% independent directors

99% attendance rate

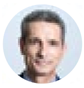
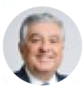
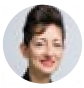
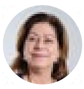
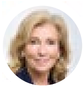
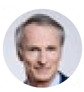
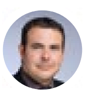
1 lead independent director

45% women

2 employee directors

1 director representing employee shareholders

The table below gives a general overview of the members of the Board of Directors and its Committees as at February 1, 2023:

	Name	Age	Independent [a]	Other terms [e]	ARC [f]	NRC [g]	CSRC [h]	Years of seniority
	Pierre-André de Chalendar	64	No	2				16.5
	Benoit Bazin	54	No	1				1.5
	Jean-François Cirelli	64	Yes	0		(P) [j]		2.5
	Lydie Cortes	51	No [b]	0		(M)		4.5
	Sibylle Daunis-Opfermann	48	No [c]	0				2.5
	Thierry Delaporte	55	Yes	1				0.5
	Lina Ghotmeh	42	Yes	0			(M)	1.0
	Iêda Gomes Yell	66	Yes	0	(M) [i]			6.5
	Pamela Knapp	64	Yes	2	(P)			9.5
	Agnès Lemarchand	68	Yes	2	(M)		(P)	9.5
	Dominique Leroy	58	Yes	3 [l]		(M)		5.5
	Gilles Schnepp	64	No	2	(M)			13.5
	Jean-Dominique Senard [d]	69	Yes	1			(M)	10.5
	Philippe Thibaudet	42	No [b]	0			(M)	4.5
	NUMBER OF MEETINGS [k]			Board: 9	ARC: 4	NRC: 4	CSRC: 4	
	ATTENDANCE RATE			99%	93%	93%	100%	

(a) *According to the criteria set forth in Recommendation 10.5 of the AFEP-MEDEF Code, see section 5.1.1 p. 156 for more details.*
(b) *Employee Director, appointed pursuant to the law, not included in the calculation of the Director independence ratio on the Board of Directors, in compliance with the recommendations of the AFEP-MEDEF Code, nor in the gender parity ratio on the Board of Directors, in accordance with the law.*
(c) *Director representing employee shareholders, not included in the calculation of the ratio of independent Directors on the Board of Directors, in accordance with the recommendations of the AFEP-MEDEF Code, and gender parity on the Board of Directors, in accordance with the law.*
(d) *Lead independent Director.*
(e) *Held within listed companies (excluding Compagnie de Saint-Gobain).*
(f) *Audit and Risk Committee.*
(g) *Nomination and Remuneration Committee.*
(h) *Corporate Social Responsibility Committee.*
(i) *Member of a Committee.*
(j) *Chairperson of a Committee.*
(k) *For the period from January 1, 2022 to December 31, 2022.*
(l) *Dominique Leroy holds all her offices within Deutsche Telekom AG Group. T-Mobile USA (USA) and OTE (Greece) being companies controlled by Deutsche Telekom AG.*

Each year, specifically on the occasion of its assessment, the Board of Directors considers the desirable balance of its composition and that of the Committees. Regarding the diversity and internationalization of the Saint-Gobain Group's activities, it specifically provides for the presence of Directors with international experience, and ensures that the profiles and competencies represented at the Board reflect, to the greatest possible extent, the diversity of challenges the Group may face, to guarantee to shareholders and the market that its tasks are executed with the necessary competency, independence and objectivity.

The following biographies show the members of the Board of Directors as of February 1, 2023, their experience and their respective expertise, and the principal offices and functions they exercise or have exercised outside the Group over the past five years, to the best of the Company's knowledge.

PIERRE-ANDRÉ DE CHALENDAR

Chairman of the Board of Directors
Principal office held:
Chairman of the Board of Directors of Compagnie de Saint-Gobain
Compagnie de Saint-Gobain – "Tour Saint-Gobain" – 12, place de l'Iris – 92400 Courbevoie

64 years old

Nationality: French

Number of shares held: 375 945

Date of first election: June 2006

Term start date: June 2022

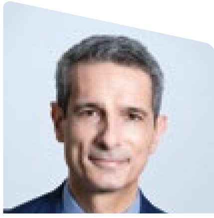
Term end date of Director: General Shareholders' Meeting convened to approve the financial statements for fiscal year 2025

EXPERTISE AND EXPERIENCE

Mr. Pierre-André de Chalendar joined Compagnie de Saint-Gobain as Corporate Planning Director on October 1, 1989.
Appointed Director of Abrasives Europe (1992-1996), then of the Abrasives Division (1996-2000), the Head Office of which was located in Worcester, United States, before being named Vice President for the United Kingdom and the Republic of Ireland (2000-2002), Mr. Pierre-André de Chalendar was named Senior Vice President of Compagnie de Saint-Gobain in charge of the Building Distribution Sector in 2003.
Appointed Chief Operating Officer of Compagnie de Saint-Gobain in May 2005 and elected Director in June 2006, he was appointed Chief Executive Officer of Compagnie de Saint-Gobain in June 2007 then Chairman and Chief Executive Officer in June 2010, a position held until June 2021. Since July 2021, Mr. Pierre-André de Chalendar has been Chairman of the Board of Directors of Compagnie de Saint-Gobain.
Mr. Pierre-André de Chalendar has also been a Director of BNP Paribas since 2012, Chairman of its Compensation Committee and member of its Governance, Ethics, Nominations and CSR Committee. He has also been a Director of Veolia Environnement since 2021 and a member of its Nomination Committee.
His offices and duties held outside the Group over the past five years are described below.
Mr. Pierre-André de Chalendar has been a Director of Compagnie de Saint-Gobain since June 2006.

Offices and duties held outside the Group	Other offices held outside the Group and expired over the past five years
• Director, Chairman of the Compensation Committee and member of the Governance, Ethics, Nomination and CSR Committee of BNP Paribas* • Director and member of the Nomination Committee of Veolia Environnement* • Director of Bpifrance	None

* *Listed company.*



BENOIT BAZIN

Director
Principal office held: Chief Executive Officer of Compagnie de Saint-Gobain
Compagnie de Saint-Gobain – "Tour Saint-Gobain" – 12, place de l'Iris – 92400 Courbevoie, France

54 years old

Nationality: French

Number of shares held: 96 963

Date of first election: June 2021

Term start date: June 2021

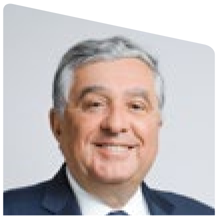
Term end date: General Shareholders' Meeting convened to approve the financial statements for fiscal year 2024

EXPERTISE AND EXPERIENCE

After studying in France and in the United States, and spending four years at the Interministerial Committee on Industrial Restructuring (ICIR) and the Treasury Department within the French Ministry of Finance, Mr. Benoit Bazin joined Saint-Gobain in 1999. He held various positions in France, including Corporate Planning Director from 2000 to 2002, and, starting in 2002, in the United States, in a general management role within High-Performance Materials, before taking the Chief Financial Officer role of Compagnie de Saint-Gobain in 2005. From 2009 to the end of 2015, Mr. Benoit Bazin headed the Building Distribution Sector. In 2010, he was appointed Senior Vice President of Compagnie de Saint-Gobain. From 2016 to the end of 2018, Mr. Benoit Bazin headed the Construction Products Sector. During 2017, he was President and CEO of CertainTeed Corporation in the United States. Appointed Chief Operating Officer of Compagnie de Saint-Gobain on January 1, 2019, then Director on June 3, 2021, he was appointed Chief Executive Officer of Compagnie de Saint-Gobain as from July 1, 2021.
In addition, Mr. Benoit Bazin was appointed Director of Vinci in 2020; as such, he is Chairman of the Strategy and CSR Committee and member of the Nomination and Governance Committee. He was also a Director and member of the Audit and Risk Committee of Essilor between 2009 and 2017, and Chairman of the Audit and Risk Committee from May 2016 to March 2017. He is also Director of the *Cité de l'Architecture et du Patrimoine*.

Offices and duties held outside the Group	Other offices held outside the Group and expired over the past five years
• Director and Chairman of the Strategy and CSR Committee and member of the Nomination and Governance Committee of Vinci*	None

* *Listed company*



JEAN-FRANÇOIS CIRELLI

Independent Director
Chairman of the Nomination and Remuneration Committee
Principal office held: Chairman of BlackRock France, Belgium and Luxembourg [(1)]
BlackRock France – 16, rue du 4 Septembre – 75002 Paris, France

64 years old

Nationality: French

Number of shares held: 800

Date of first election: June 2020

Term start date: June 2020

Term end date: General Shareholders' Meeting convened to approve the financial statements for fiscal year 2023

EXPERTISE AND EXPERIENCE

Mr. Jean-François Cirelli began his professional career at the Treasury Department of the French Ministry of Economy and Finance, holding several positions, from 1985 to 1995 where he was in particular in charge of housing policy. In 1995, he was appointed Economic Advisor to the President of the Republic. In 2002, he was appointed Deputy Director of the Prime Minister's Office, more specifically in charge of economic, industrial and social issues.
Mr. Jean-François Cirelli was appointed Chairman and Chief Executive Officer of Gaz de France in 2004, an office he held until 2008. From 2008 to 2014, he was Vice Chairman and Chief Operating Officer of GDF SUEZ (now ENGIE). From 2012 to 2014, he also managed all of GDF SUEZ's Energy activities in Europe.
Since 2016, he has been Senior Advisor at Advent International and Chairman of BlackRock France, Belgium and Luxembourg. He has been a member of the Board of Directors of Idemia since 2017. He has also been a member of the Orientation Board of Sonepar SAS and a member of the Supervisory Board of Saur SAS since 2018 as well as a member of the Board of Directors of MET Holding AG since 2019.
Mr. Jean-François Cirelli has been a Director of Compagnie de Saint-Gobain since June 2020.

Offices and duties held outside the Group	Other offices held outside the Group and expired over the past five years
• Chairman of BlackRock France, Belgium and Luxembourg • Senior Advisor of Advent International • Director of Idemia • Director of Saur • Director of MET Holding AG** (Switzerland)	• Member of the Supervisory Board of Uniper SE* (Germany) (2017-2020)

(1) *Director as an individual, and not as a BlackRock representative, Mr. Jean-François Cirelli does not represent BlackRock on the Board of Directors.*
* *Listed company.*
** *Non-listed foreign company.*

LYDIE CORTES

Employee Director
Member of the Nomination and Remuneration Committee
Principal office held: Product Safety Coordinator
Saint-Gobain Weber France – D 1083 – Le Grand Étang – 01960 Servas, France

51 years old

Nationality: French

Number of shares held: 7

Date of first election: May 2018

Term start date: June 2022

Term end date: General Shareholders' Meeting convened to approve the financial statements for fiscal year 2025

EXPERTISE AND EXPERIENCE

Mrs. Lydie Cortes joined the Saint-Gobain Group in 1992, working at the Saint-Gobain Weber research and development laboratory on the Servas site, where she performed various functions, first as a color development and control technician, then as a technician for the development of control methods for finished pulp goods. From 1999 to 2012, she was an R&D technician for the formulation of finished powder goods.
Since 1996, Mrs. Lydie Cortes has held various elected and union offices, including member of the Works Committee, Employee Representative and member of the Saint-Gobain Weber CHSCT, and, since 2004, CFDT Central Trade Union Representative.
Since 2007, Mrs. Lydie Cortes has been a member of the Company's Works Council, and in 2010, she was elected Secretary of the European Convention and to the Saint-Gobain Select Committee.
Mrs. Lydie Cortes has been the Product Safety Coordinator (management and assessment of product hazard classes, awareness and prevention of the use and handling of chemicals) at Saint-Gobain Weber France since 2012.
Mrs. Lydie Cortes has been a Director of Compagnie de Saint-Gobain since June 2018.

Offices and duties held outside the Group	Other offices held outside the Group and expired over the past five years
None	None

SIBYLLE DAUNIS-OPFERMANN

Director representing employee shareholders
Principal office held: Chief Executive Officer of PUM
PUM – 4 rue René Francart – 51100 Reims

48 years old

Nationality: French

Number of shares held: 2,158

Date of first election: March 2020

Term start date: June 2021

Term end date: General Shareholders' Meeting convened to approve the financial statements for fiscal year 2024

EXPERTISE AND EXPERIENCE

Mrs. Sibylle Daunis-Opfermann began her career in 1996 in an SME in the automotive sector, where she was responsible for optimizing the non-production purchases of large groups in the automotive subcontracting sector.
In 1998, she joined the Welding activity of the Air Liquide Group, where she held the position of deputy to the head of Production Purchasing, before joining the Marketing Department and being in charge of the management of the whole trading products.
In 2001, she joined Virax, a Facom Group company specialized in plumber's tools, as purchasing manager.
In 2005, she joined the Saint-Gobain Group, within PUM Plastiques, where she was deputy to the Purchasing Director. She held this position until 2010 before being appointed head of Marketing and Purchasing. In 2013, she was entrusted, in addition to her duties, with the digitalization of the trading brand, and with the function of Head of the Communication Department.
Since September 2016 she has been Chief Executive Officer of PUM.
Mrs. Sibylle Daunis-Opfermann has been a Director of Compagnie de Saint-Gobain since March 2020.

Offices and duties held outside the Group	Other offices held outside the Group and expired over the past five years
None	None

55 years old

Nationality: French

Number of shares held: 1,795

Date of first election: June 2022

Term start date: June 2022

Term end date: General Shareholders' Meeting convened to approve the financial statements for fiscal year 2025

THIERRY DELAPORTE

Independent Director
Principal office held: Chief Executive Officer of Wipro Limited
Bangalore, India

EXPERTISE AND EXPERIENCE

Mr. Thierry Delaporte began his career in 1992 at the consulting firm Arthur Andersen before joining Capgemini Group in 1995. He first held various financial positions, including Chief Financial Officer for Southern Europe, then Asia-Pacific. He then spent nearly 15 years in the United States in the financial and operational management functions; in this capacity, he was Chief Financial Officer of North America, Chief Executive Officer of the global strategic international financial services unit and then Chief Executive Officer of the Latin America region. In 2017, he was appointed Chief Operating Officer of the Group, an office he held until 2020.
In June 2020, he joined Wipro Limited, a company headquartered in Bangalore, listed on the NYSE (New York Stock Exchange) and the BSE (Bombay Stock Exchange), the world leader in information technology, as Chief Executive Officer.
Mr. Thierry Delaporte has been a Director of Compagnie de Saint-Gobain since June 2022.

Offices and duties held outside the Group	Other offices held outside the Group and expired over the past five years
• Chief Executive Officer of Wipro Limited* (India)	None

* *Listed company.*

42 years old

Nationalities: French, Lebanese

Number of shares held: 800

Date of first election: November 2021

Term start date: November 2021

Term end date: General Shareholders' Meeting convened to approve the financial statements for fiscal year 2022

LINA GHOTMEH

Independent Director
Member of the Corporate Social Responsibility Committee
Principal office held: Architect
Compagnie de Saint-Gobain – "Tour Saint-Gobain" – 12, place de l'Iris – 92400 Courbevoie, France

EXPERTISE AND EXPERIENCE

Mrs. Lina Ghotmeh is a particularly renowned architect on the international scene. She is leading her own studio, Lina Ghotmeh - Architecture, in Paris and works with a multicultural team to produce architectural designs in France and abroad.
She has received numerous awards, including the 2008 AJAP prize from the French Ministry of Culture, the 2016 DEJEAN prize from the *Académie d'Architecture*, the 2016 Grand Prix Afex, the 2019 Pierre Cardin prize from the *Académie des Beaux-Arts de Paris*, and more recently, the 2020 Tamayouz "Woman of Outstanding Achievement" Award and the 2020 Schelling Foundation *Prix d'Architecture*. She has also been nominated for the Moira Gemmill Prize, a British award.
Her work was exhibited at the 17th Venice Biennale of Architecture and is frequently published, notably in works of Phaidon and RIBA, or in the reviews AA, Domus and Architectural Record.
She teaches at the Yale School of Architecture in the United States, at the University of Toronto in Canada and has taught at the *École Spéciale d'Architecture*. She has lectured at several institutions including Columbia University in the United States, Parsons School in France and the Royal College of Art in the United Kingdom.
Mrs. Lina Ghotmeh has been a Director of Compagnie de Saint-Gobain since November 2021.

Offices and duties held outside the Group	Other offices held outside the Group and expired over the past five years
• President of Lina Ghotmeh Architecture	None

IÊDA GOMES YELL

Independent Director
Member of the Audit and Risk Committee
Principal office held: Research fellow and Director of Companies
Compagnie de Saint-Gobain – "Tour Saint-Gobain" – 12, place de l'Iris – 92400 Courbevoie, France

66 years old

Nationalities:
Brazilian, British

Number of shares held: 800

Date of first election:
June 2016

Term start date:
June 2020

Term end date:
General Shareholders' Meeting convened to approve the financial statements for fiscal year 2023

EXPERTISE AND EXPERIENCE

Mrs. Iêda Gomes Yell was Chief Executive Officer of *Companhia de Gas de São Paulo* from 1995 to 1998.
She then held various senior positions within the BP Group, in particular as Vice President of Pan American Energy (1998-1999), Vice President of Regulatory Affairs (1999-2000), Chairwoman of BP Brazil (2000-2002), Vice President of Development of BP Solar (2002-2004), and Vice Chairwoman of BP Integrated Supply and Trading (2004-2011). She was also a member of the Board of BP Brasil Ltd and BP Egypt Investments Ltd up to 2011. Mrs. Iêda Gomes Yell was also Vice President of New Ventures for the Middle East and South Asia (2004-2011) and Independent Chairwoman of British Taekwondo Ltd. (2011-2016).
She has also held several senior positions within professional organizations (the Brazilian Association of Infrastructure, the International Gas Union, the US Civil Engineering Foundation and the Brazilian Association of Gas Distribution Companies).
In 2011, she founded Energix Strategy Ltd, a consulting company on the energy markets based in Warrington that she chaired until October 2017.
In addition, Mrs. Iêda Gomes Yell serves as Director of the Department of the Infrastructure of the Federation of the State Industry of São Paulo (since 2012), Councilor to the Brazilian Chamber of Commerce of England, member of the Advisory Board of the *Fundação Getúlio Vargas Energia* and Director and co-founder of WILL Latam, a non-profit organization for the development of women executives (since 2014). Mrs. Iêda Gomes Yell has been a visiting research fellow at the Oxford Institute for Energy Studies since September 2012. In October 2020, she became a representative of energy consumers at the Isle of Man Climate Change Citizens Forum.
Her other offices and positions held during the last five years are described below.
Mrs. Iêda Gomes Yell has been a Director of Compagnie de Saint-Gobain since June 2016.

Offices and duties held outside the Group

- Director and Chairwoman of the Strategy Committee and member of the Human Resources, Compliance and Sustainable Development Committee of Prumo Logistica SA** (Brazil)
- Director and member of the Nomination Commitee of The Institute of Directors** (United Kingdom) (2021-2022)
- Director of The Business Agency isle of Man* (Isle of Man)

Other offices held outside the Group and expired over the past five years

- Director and Chairwoman of the Nomination, Sustainable Development and Governance Committee and Human Capital and Remuneration Committee of Exterran Corporation* (United States) (2015-2022)
- Director and member of the Audit and Risk Committee and of the Strategic Committee of Bureau Veritas* (2013-2021)
- Director and Chairwoman of the Governance Committee of InterEnergy Group Holdings** (2013-2020)
- Director and Chairwoman of the Compliance Committee of Odebrecht SA (Brazil) (2018-2019)

* *Listed company.*
** *Non-listed foreign company.*

PAMELA KNAPP

Independent Director
Chairwoman of the Audit and Risk Committee
Principal office held: Director of companies
Compagnie de Saint-Gobain – "Tour Saint-Gobain" – 12, place de l'Iris – 92400 Courbevoie, France

64 years old

Nationality: German

Number of shares held: 1,818

Date of first election: June 2013

Term start date: June 2021

Term end date: General Shareholders' Meeting convened to approve the financial statements for fiscal year 2024

EXPERTISE AND EXPERIENCE

Mrs. Pamela Knapp began her career in 1987 as an M&A consultant at Deutsche Bank Morgan Grenfell GmbH and Fuchs Consult GmbH.
In 1992, she was named Director of Strategic Projects, then of the Maintenance & Services Branch in the Transportation Systems Division of the Siemens Group, where she served until 1997. From 1998 to 2000, she was a Board member and Chief Financial Officer (CFO) of Siemens SA, Belgium and Luxembourg.
In 2000, she became Director of the Siemens Group's central Corporate Development Executives Department then, starting in 2004, Board member and Chief Financial Officer of the Power Transmission and Distribution Division of the Siemens Group, until 2009. From 2009 until October 2014, she was a member of the Management Board of GfK SE.
Since June 2020, she has been a member of the Monopoly Commission (*Monopolkommission*), which advises the German Minister of the Economy on competition issues.
Her other offices and positions held during the last five years are described below.
Mrs. Pamela Knapp has been a Director of Compagnie de Saint-Gobain since June 2013.

Offices and duties held outside the Group	Other offices held outside the Group and expired over the past five years
• Member of the Supervisory Board and Chairwoman of the Audit Committee of Lanxess AG* (Germany) • Member of the Supervisory Board and Chairwoman of the Audit Committee of Signify NV* (Netherlands)	• Member of the Supervisory Board, the Nomination, Remuneration and Governance Committee and the Finance and Audit Committee of Peugeot SA* (2011-2021) • Director and member of the Audit Committee of NV Bekaert* (Belgium) (2016-2020) • Director of HKP Group AG (Switzerland) (2013-2019) • Director and member of the Audit Committee of Panalpina World Transport (Holding) Ltd* (Switzerland) (2015-2019)

* *Listed company.*

AGNÈS LEMARCHAND

Independent Director
Chairwoman of the Corporate Social Responsibility Committee
Member of the Audit and Risk Committee
Principal office held: Director of companies
Compagnie de Saint-Gobain – "Tour Saint-Gobain" – 12, place de l'Iris – 92400 Courbevoie, France

68 years old

Nationality: French

Number of shares held: 2,252

Date of first election: June 2013

Term start date: June 2021

Term end date: General Shareholders' Meeting convened to approve the financial statements for fiscal year 2024

EXPERTISE AND EXPERIENCE

Mrs. Agnès Lemarchand began her professional life with various operational responsibilities within the Rhône-Poulenc Group from 1980 to 1985.
Appointed in 1986 as Chief Executive Officer of *Industrie Biologique Française* (IBF), she created IBF Biotechnics, a subsidiary of the Rhône-Poulenc Group and the *Institut Mérieux*, in the United States in 1987, of which she was appointed Chairwoman and Chief Executive Officer.
In 1991, she joined the *Ciments Français* Group as Chief Executive Officer of Prodical, an industrial minerals subsidiary which she led from 1991 to 1996. She joined the Lafarge Group in 1997, held the position of head of strategy for the Specialty Materials branch, then in 1999 was appointed Chairwoman and Chief Executive Officer of Lafarge Chaux.
In 2004, she took over, together with its senior executives, the Lafarge Chaux subsidiary in the United Kingdom and founded Steetley Dolomite Limited, where she served as executive Chairwoman for 10 years before selling the company to the Lhoist industrial group. Mrs. Agnès Lemarchand was a member of the Supervisory Board of Mersen from 2007 to 2013 and a member of the Economic, Social and Environmental Council (economic activities section) from 2012 to 2014. She is a member of the ESG Committee of the *Institut Français des Administrateurs* (the French Institute of Directors). She was also President of COMDEV from April 2021 to August 2022.
Her other offices and positions held during the last five years are described below.
Mrs. Agnès Lemarchand has been a Director of Compagnie de Saint-Gobain since June 2013.

Offices and duties held outside the Group	Other offices held outside the Group and expired over the past five years
• Director and member of the Nomination and Remuneration Committee of Solvay SA* (Belgium) • Director and member of the Audit Committee of BioMérieux*	• President of COMDEV (2021-2022) • President of Orchad SAS (2014-2019)

* *Listed company.*

DOMINIQUE LEROY

Independent Director
Member of the Nomination and Remuneration Committee
Principal office held: Member of the Management Board of Deutsche Telekom AG and Chief executive officer for Europe
Friedrich-Ebert-Allee 140, 53113 Bonn, Germany

58 years old

Nationality: Belgian

Number of shares held: 1,000

Date of first election: November 2017

Term start date: June 2019

Term end date: General Shareholders' Meeting convened to approve the financial statements for fiscal year 2022

EXPERTISE AND EXPERIENCE

Mrs. Dominique Leroy held various positions at Unilever Belgium and Benelux for 24 years. Having started out in marketing, finance and client development, between 1999 and 2006 she was appointed first Director of Operations Division, then Director of Logistics and finally Director of Client Development at Unilever Foods Belgium. Up to 2011, she was then Director of Client Development and member of the Management Committee, then Managing Director of Unilever Benelux, where she also sat on the Management Committee from 2008 to 2011.
In 2011, she joined Proximus Group (formerly Belgacom) as Vice Chairwoman with responsibility for sales and e-business for the Consumer Business Unit, before becoming its Executive Vice Chairwoman in June 2012. Between January 2014 and September 2019, Mrs. Dominique Leroy was Chief Executive Officer of Proximus Group, listed on the first market of Euronext Brussels. At Proximus Group, she also chaired the Boards of Directors of BICS and Be-Mobile and was a Director of Proximus Art.
Since November 2020, she has been a member of the Management Board of Deutsche Telekom AG* for Europe.
Mrs. Dominique Leroy has been Senior Advisor of Ergon Capital Partners since May 2020. She is also member of the Board of Directors of T-Mobile USA and OTE (Greece), companies controlled by Deutsche Telekom AG. She chaired the International Advisory Board of the Solvay Brussels School of Economics and Management until October 2019.
Her other offices and positions held during the last five years are described below.
Mrs. Dominique Leroy has been a Director of Compagnie de Saint-Gobain since November 2017.

Offices and duties held outside the Group	Other offices held outside the Group and expired over the past five years
• Member of the Management Board of Deutsche Telekom AG* and Chief executive officer for Europe (Germany) • Member of the Board of Directors of T-Mobile USA* (United States), company controlled by Deutsche Telekom AG* • Member of the Board of Directors of OTE* (Greece) a subsidiary more than 50% owned by Deutsche Telekom AG*	• Member of the Supervisory Board, the Governance and Nomination Committee, the Risk Management Committee and the Sustainable Development and Innovation Committee of Ahold Delhaize* (Netherlands) (2016-2021) • Senior Advisor of Bain & Company (Belgium) (2019-2020) • Chief Executive Officer of Proximus* (Belgium) (2014-2019) • Director and Chairwoman of the Audit Committee of Lotus Bakeries* (2009-2018)

* *Listed company.*

GILLES SCHNEPP

Director
Member of the Audit and Risk Committee
Principal office held: Chairman of the Board of Directors of Danone
Compagnie de Saint-Gobain – "Tour Saint-Gobain" – 12 place de l'Iris – 92400 Courbevoie, France

64 years old

Nationality: French

Number of shares held: 800

Date of first election: June 2009

Term start date: June 2021

Term end date: General Shareholders' Meeting convened to approve the financial statements for fiscal year 2024

EXPERTISE AND EXPERIENCE

Mr. Gilles Schnepp began his career at Merrill Lynch in 1983 and was appointed head of the Bonds and Derivatives Departments in 1988. In 1989, he joined the Legrand Group where he held several positions including that of Corporate Secretary and Chief Financial Officer, before being appointed Chief Operating Officer (2000), member of the Management Committee and Director (2001), Vice Chairman and Chief Executive Officer (2004), Chairman and Chief Executive Officer of Legrand (2006) and Chairman of the Board of Directors (2018), a term he held until June 2020.
Between 2019 and 2021 he was Vice Chairman and Senior Independent Member of the Supervisory Board of Peugeot SA and Chairman of the Nomination, Remuneration and Governance Committee and member of the Finance and Audit Committee. Since May 2020, he has been a Director of Sanofi and, since December 2020, of Danone and was appointed Chairman of Danone's Board on March 15, 2021.
His other offices and positions held during the last five years are described below. He has also been a member of the Board of Directors of Socotec since 2022.
Mr. Gilles Schnepp has been a Director of Compagnie de Saint-Gobain since June 2009.

Offices and duties held outside the Group	Other offices held outside the Group and expired over the past five years
• Chairman of the Board of Directors of Danone* and member of its Strategy & Transformation Committee • Director, Chairman of the Nomination, Governance and CSR Committee and member of the Strategic Thinking Committee of Sanofi* • Director of Socotec	• Director of Legrand* (2002-2022) • Vice Chairman and Senior Independent Member of the Supervisory Board, Chairman of the Nomination, Remuneration and Governance Committee and member of the Finance and Audit Committee of Peugeot SA* (2019-2021) • Chairman and Chief Executive Officer (2006-2018) then Chairman of the Board of Directors (until 2020) of Legrand*

* *Listed company.*

JEAN-DOMINIQUE SENARD

Lead independent Director
Independent Director
Member of the Corporate Social Responsibility Committee
Principal office held: Chairman of the Board of Directors of Renault
Renault – 13, quai Alphonse le Gallo – 92100 Boulogne-Billancourt, France

69 years old

Nationality: French

Number of shares held: 7,685

Date of first election: June 2012

Term start date: June 2020

Term end date: General Shareholders' Meeting convened to approve the financial statements for fiscal year 2023

EXPERTISE AND EXPERIENCE

Mr. Jean-Dominique Senard began his career with various financial and operational responsibilities within the Total Group from September 1979 to September 1987, before working at Saint-Gobain from 1987 to 1996.
From September 1996 to March 2001, he was Chief Financial Officer of the Pechiney Group and member of the Group's Executive Committee. He then managed the Primary Aluminum Division of the Pechiney Group until 2004. Then, as member of the Alcan Group Executive Committee, he was in charge of Pechiney's integration and Chairman of Pechiney SA.
Mr. Jean-Dominique Senard joined Michelin in March 2005 as Chief Financial Officer and member of the Executive Council of the Michelin Group. In May 2007, he became Non-Limited Partner of the Michelin Group before being appointed Limited Managing Partner in May 2011 alongside Mr. Michel Rollier, and then Chairman from May 2012 to May 2019. Mr. Jean-Dominique Senard was a Director of SEB from 2009 to 2013.
Mr. Jean-Dominique Senard was co-opted as a new Director and elected Chairman of the Board of Directors of Renault on January 24, 2019.
His other offices and positions held during the last five years are described below.
Mr. Jean-Dominique Senard has been a Director of Compagnie de Saint-Gobain since June 2012.

Offices and duties held outside the Group	Other offices held outside the Group and expired over the past five years
• Chairman of the Board of Directors of Renault* • Director of Nissan Motor Co., Ltd. (Japan)**, • Member of the Supervisory Board of Groupe Fives • Director of Groupe Center France – La Montagne SA	• Chairman of Michelin* (2012-2019)

* *Listed company*
** *Listed foreign company*

PHILIPPE THIBAUDET

Employee Director
Member of the Corporate Social Responsibility Committee
Principal office held: EHS Operations Manager
Saint-Gobain Isover – 19, rue Paul Sabatier – 71102 Chalon-sur-Saône, France

42 years old

Nationality: French

Number of shares held: 7

Date of first election: May 2018

Term start date: June 2022

Term end date: General Shareholders' Meeting convened to approve the financial statements for fiscal year 2025

EXPERTISE AND EXPERIENCE

Mr. Philippe Thibaudet has spent his professional career at the Saint-Gobain Isover Chalon-sur-Saône plant as a continuous-shift production operator.
He began his union career path very early on, first at the Chalon-sur-Saône plant, then in the central, national and European union organizations of the Saint-Gobain Group as representative of the CGT.
He has been responsible for industrial activity and collective bargaining in all professional sectors covered by the CGT National Federation of Glass and Ceramic Workers.
Within the Saint-Gobain Isover and the Saint-Gobain Group union organizations, he was an employee representative, member of the CHSCT, member of the Works Committee, member of the Central Works Council, secretary of the CHSCT, member of the Company's Works Council, member of the Convention for European Social Dialogue, Trade Union Delegate, SGI Central Trade Union Delegate and FNTVC-CGT Federal Secretary. Lastly, he was also the CWC Alternate Representative on the Isover Board of Directors.
Mr. Philippe Thibaudet has been EHS Officer at Saint-Gobain Isover in Chalon-sur-Saône since July 1, 2019.
Mr. Philippe Thibaudet has been a Director of Compagnie de Saint-Gobain since June 2018.

Offices and duties held outside the Group	Other offices held outside the Group and expired over the past five years
None	None

Independence, diversity policy and representation of employee shareholders and employees on the Board of Directors

Independence

The Board has carried out the annual review of each Director's situation with regard to the independence criteria set out in the AFEP-MEDEF Corporate Governance Code for French listed companies, with which the Company complies, at the proposal of the Nomination and Remuneration Committee.

The Board of Directors, at its meeting of February 23, 2023, also scrutinized, as it does every year, with vigilance and with the same attention as the other criteria, the business relationships that may exist between the Saint-Gobain Group and the other companies or groups where each Director holds office. In particular, Mr. Jean-Dominique Senard, Chairman of the Board of Directors of Renault, Mr. Gilles Schnepp, Chairman of the Board of Directors of Danone, Mrs. Dominique Leroy, member of the Board of Directors and Europe Chief Executive Officer of Deutsche Telekom AG, Mr. Jean-François Cirelli, Chairman of BlackRock France, Belgium and Luxembourg, Mrs. Lina Ghotmeh, *Présidente* of Lina Ghotmeh Architecture and Mr. Thierry Delaporte, Chief Executive Officer of Wipro Limited, who hold executive management positions or chairmanships of board of directors or supervisory bodies. The Board's review, described below, concluded that, with the exception of Mrs. Dominique Leroy and Mr. Jean-Dominique Senard, none of these Directors, nor any company or group within which they hold office as senior executives or exercise Board chairmanship functions (or supervisory board) has any business relationship with Compagnie de Saint-Gobain, its Group or its management.

As no business relationships exist between the groups Danone, BlackRock, Lina Ghotmeh Architecture or Wipro Limited on the one hand, and Saint-Gobain on the other, the Board conducted a quantitative and qualitative review of the situation of Mrs. Dominique Leroy and Mr. Jean-Dominique Senard and of business relationship between Deutsche Telekom and the Renault Alliance (Renault, Nissan, Mitsubishi), on the one hand, and Saint-Gobain, on the other.

Business flows between the Saint-Gobain and Deutsche Telekom groups represent less than 0.1% of their respective consolidated revenues, all activities combined and worldwide. Between the Renault Alliance and the Saint-Gobain group, business flows represent less than 0.1% of Renault's consolidated revenues and less than 0.5% of Saint-Gobain's consolidated revenues, all activities combined and worldwide. These figures are well below the 1% materiality threshold set by the Board. In addition, the Board of Directors noted that, given the organization of the Saint-Gobain Group, its size and the diversity of its activities, it is not the Board's role to intervene in the commercial relations of the Group's various business units, which are managed on a decentralized basis by the departments concerned. Furthermore, Mrs. Dominique Leroy and Mr. Jean-Dominique Senard, in their capacity as Directors of the Saint-Gobain Group, have no direct or indirect decision-making power in the establishment or maintenance of these business relationships. If, however, such an issue were to be discussed at a Board meeting, the Board's internal rules provide for rules on the management of conflicts of interest, under which the Director concerned would have the duty to inform the Chairman of the Board of Directors and the Lead Director of his or her situation and to abstain from participating in the discussions and deliberations on the matter in question (see section 9.1.1.B, p. 370).

On the basis of the above, the Board considered that Mrs. Dominique Leroy and Mr. Jean-Dominique Senard do not have, directly or indirectly, any significant business relationships with the Group that could affect their freedom of judgment or independence.

It should be noted that Mr. Jean-François Cirelli is a Director as an individual and not on the proposal of BlackRock which, at December 31, 2022, held 6.02% of the capital and 5.49% of the voting rights of the Company. Mr. Jean-François Cirelli does not represent BlackRock on the Board of Directors.

See conflicts of interest and statements regarding members of the Board of Directors section 5.1.1 p. 156 regarding conflicts of interest of members of the Board of Directors, and the absence of services contract between Directors and the Company or any Group entity.

The Board of Directors concluded from its review of Directors' independence against the criteria set down by the AFEP-MEDEF Code that, as of February 1, 2023, eight Directors out of eleven (i.e., 73%) completely satisfied the independence criteria, and were therefore considered to be independent Directors: Mrs. Lina Ghotmeh, Mrs. Iêda Gomes Yell, Mrs. Pamela Knapp, Mrs. Agnès Lemarchand, Mrs. Dominique Leroy, Mr. Jean-François Cirelli, Mr. Jean-Dominique Senard and Thierry Delaporte. In compliance with the recommendations of the AFEP-MEDEF Code, Mrs. Sibylle Daunis-Opfermann, representing employee shareholders, and Mrs. Lydie Cortes and Mr. Philippe Thibaudet, representing employees, were not included in calculating that proportion.

The table below summarizes the results of the independence review of each Director in relation to the criteria set out in the AFEP-MEDEF Code.

	Criteria [a]							
Director	Criterion 1: *Employee or executive corporate officer during the previous 5 years*	Criterion 2: *Cross-directorships*	Criterion 3: *Significant business relationships*	Criterion 4: *Family ties*	Criterion 5: *Statutory Auditor*	Criterion 6: *Term of office of more than 12 years*	Criterion 7: *Non-executive corporate officer*	Criterion 8: *Major shareholder*
Pierre-André de Chalendar	✗	✓	✓	✓	✓	✗	✓	✓
Benoit Bazin	✗	✓	✓	✓	✓	✓	✓	✓
Jean-François Cirelli	✓	✓	✓	✓	✓	✓	✓	✓ [b]
Lydie Cortes	✗	✓	✓	✓	✓	✓	✓	✓
Sibylle Daunis-Opfermann	✗	✓	✓	✓	✓	✓	✓	✓
Thierry Delaporte	✓	✓	✓	✓	✓	✓	✓	✓
Lina Ghotmeh	✓	✓	✓	✓	✓	✓	✓	✓
Iêda Gomes Yell	✓	✓	✓	✓	✓	✓	✓	✓
Pamela Knapp	✓	✓	✓	✓	✓	✓	✓	✓
Agnès Lemarchand	✓	✓	✓	✓	✓	✓	✓	✓
Dominique Leroy	✓	✓	✓	✓	✓	✓	✓	✓
Gilles Schnepp	✓	✓	✓	✓	✓	✗	✓	✓
Jean-Dominique Senard	✓	✓	✓	✓	✓	✓	✓	✓
Philippe Thibaudet	✗	✓	✓	✓	✓	✓	✓	✓

In this table, ✓ represents an independence criterion that has been met and ✗ represents an independence criterion that has not been met.

(a) *According to the criteria set forth in Recommendation 10.5 of the AFEP-MEDEF Code: (i) not be or not have been within the previous five years an employee or executive corporate officer of Compagnie de Saint-Gobain or employee, executive corporate officer or Director of a company within the Compagnie de Saint-Gobain scope of consolidation, (ii) not hold a cross-directorship as defined by Recommendation 10.5.2 of the AFEP-MEDEF Code, (iii) not have a significant business relationship with the Saint-Gobain Group, (iv) not be related by close family ties to an executive corporate officer of Compagnie de Saint-Gobain, (v) not have been Statutory Auditor of Compagnie de Saint-Gobain within the previous five years and (vi) not be a Director of Compagnie de Saint-Gobain for more than twelve years, it being specified that the loss of the status of independent Director occurs on the date when this twelve years is reached, (vii) not receive, for a non-Executive Director, variable compensation in cash or in the form of shares or any compensation linked to the performance of Compagnie de Saint-Gobain or the Saint-Gobain Group, and (viii) not represent a major shareholder of Compagnie de Saint-Gobain.*

(b) *Note that Mr. Jean-François Cirelli is a Director as an individual and not on the proposal of BlackRock which, at December 31, 2022, held 6.02% of the capital and 5.49% of the voting rights of the Company. Mr. Jean-François Cirelli does not represent BlackRock on the Board of Directors.*

Diversity policy, complementarity of skills and Director experience

As of February 1, 2023, four members of the Board of Directors out of eleven (i.e., 36%) are of foreign nationality (Mrs. Sibylle Daunis-Opfermann, representing the employee shareholders, and Mrs. Lydie Cortes and Mr. Philippe Thibaudet, representing the employees, are not included to establish this percentage). Further, the majority of Directors has, or has had, very strong international exposure, managing groups with a significant proportion of their activities, or exercising significant duties, outside of France (see biographies section 5.1.1, p. 156).

In addition, as part of its assessment carried out during 2022 with the assistance of a specialist consulting firm (see Assessment of the Board's performance, section 5.1.2, p. 171), the Board of Directors assessed its composition very positively in terms of diversity, complementarity of sectoral and functional skills concerning knowledge of the industry or the Group's business lines (including construction) as well as innovation/digital technology, general management, strategy, finance, governance and/or Corporate Social Responsibility (see biographies section 5.1.1, p. 158).

The Directors considered that it would be desirable to continue to reduce the age and broaden the international scope of the Board as part of future renewals, particularly those of Committee Chairmen/Chairwomen, over a three-year period, based on the needs resulting from the analysis of the skills matrix by the Nomination and Remuneration Committee and the Board, particularly by promoting the following research areas: a serving executive corporate officer or one with such experience within other major groups, a serving Chief Financial Officer, a Director from the construction value chain and/or a Director with climate change skills.

The skills matrix below summarizes the skills of the members of the Board of Directors as of February 1, 2023:

General management / Governance

Pierre-André de Chalendar, Benoit Bazin, Jean-François Cirelli, Sibylle Daunis-Opfermann, Thierry Delaporte, Iêda Gomes Yell, Pamela Knapp, Agnès Lemarchand, Dominique Leroy, Gilles Schnepp, Jean-Dominique Senard

Finance

Pierre-André de Chalendar, Benoit Bazin, Jean-François Cirelli, Thierry Delaporte, Iêda Gomes Yell, Pamela Knapp, Agnès Lemarchand, Dominique Leroy, Gilles Schnepp, Jean-Dominique Senard

Strategy

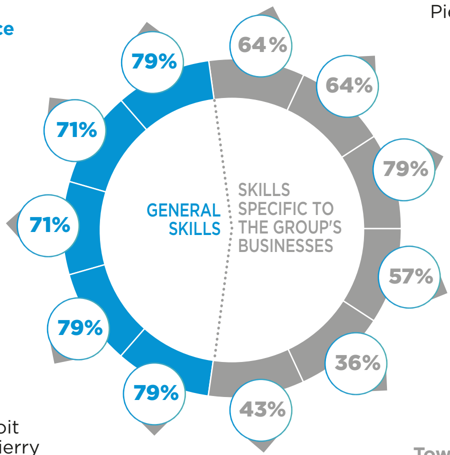
Pierre-André de Chalendar, Benoit Bazin, Jean-François Cirelli, Thierry Delaporte, Iêda Gomes Yell, Pamela Knapp, Agnès Lemarchand, Dominique Leroy, Gilles Schnepp, Jean-Dominique Senard

International

Pierre-André de Chalendar, Benoit Bazin, Jean-François Cirelli, Thierry Delaporte, Lina Ghotmeh, Iêda Gomes Yell, Pamela Knapp, Agnès Lemarchand, Dominique Leroy, Gilles Schnepp, Jean-Dominique Senard

Human Resources and social environment

Pierre-André de Chalendar, Benoit Bazin, Jean-François Cirelli, Lydie Cortes, Sibylle Daunis-Opfermann, Thierry Delaporte, Pamela Knapp, Dominique Leroy, Gilles Schnepp, Jean-Dominique Senard, Philippe Thibaudet



Solutions for construction and industry

Pierre-André de Chalendar, Benoit Bazin, Lydie Cortes, Sibylle Daunis-Opfermann, Lina Ghotmeh, Agnès Lemarchand, Gilles Schnepp, Jean-Dominique Senard, Philippe Thibaudet

Other industrial experiences / Distribution

Pierre-André de Chalendar, Benoit Bazin, Jean-François Cirelli, Sibylle Daunis-Opfermann, Iêda Gomes Yell, Pamela Knapp, Dominique Leroy, Gilles Schnepp, Jean-Dominique Senard

CSR

Pierre-André de Chalendar, Benoit Bazin, Jean-François Cirelli, Lydie Cortes, Sibylle Daunis-Opfermann, Lina Ghotmeh, Iêda Gomes Yell, Agnès Lemarchand, Gilles Schnepp, Jean-Dominique Senard, Philippe Thibaudet

Climate

Pierre-André de Chalendar, Benoit Bazin, Jean-François Cirelli, Lina Ghotmeh, Iêda Gomes Yell, Agnès Lemarchand, Gilles Schnepp, Jean-Dominique Senard

Town planning / Transformation of the cities

Pierre-André de Chalendar, Benoit Bazin, Lina Ghotmeh, Iêda Gomes Yell, Gilles Schnepp

Digital / Innovation

Benoit Bazin, Sibylle Daunis-Opfermann, Thierry Delaporte, Lina Ghotmeh, Iêda Gomes Yell, Dominique Leroy

Lastly, the Board intends to maintain balanced numbers of men and women (see the paragraph on "Gender parity" below).

Gender parity

As of February 1, 2023, the Board includes five women out of eleven members (45%), i.e., more than 40% women, in accordance with the provisions of Articles L. 225-17 et seq. of the French Commercial Code concerning the balanced representation of men and women on Boards of Directors. In accordance with the law, Mrs. Sibylle Daunis-Opfermann, who represents employee shareholders, and employee representatives Mrs. Lydie Cortes and Mr. Philippe Thibaudet are not counted when calculating this proportion. If they were included, the Board of Directors would have 50% women.

Representation of employee shareholders and employees

Mrs. Lydie Cortes and Mr. Philippe Thibaudet were appointed as Employee Directors by the Company's Works Council (*Comité de Groupe*) in accordance with the Company's bylaws. These were amended by the General Shareholders' Meeting of June 7, 2018 to provide for the appointment of two Employee Directors regardless of the size of the Board of Directors, even though, given its size, the law only required the appointment of one Employee Director. This initiative, in anticipation of the Pacte Law published in May 2019, is fully in line with Saint-Gobain's culture of social dialog.

Mrs. Sibylle Daunis-Opfermann, Director representing employee shareholders, was also appointed in accordance with the law.

The Employee Directors and the Director representing employee shareholders are members of the Board of Directors in the same way as the other Directors and have voting rights. Subject to the laws applying specifically to them, these Directors are subject to all legal and statutory provisions, have the same rights and are subject to the same duties, as fixed, in particular, by the Board's internal rules, as those applicable to the other Directors.

By law, one member of the Economic and Social Committee (Mr. Vincent Cotrel, elected by the members of the Economic and Social Committee and representing employees) holds a seat on the Board of Directors in a consultative capacity.

The Company bylaws and the Board's internal rules provide that each Director must hold a minimum of 800 registered shares, with the law exempting employee Directors, whether shareholders or not, from this type of obligation.

On February 1, 2023, all the shares held by the Directors (including Mr. Benoit Bazin) represented 0.10% of the Company's share capital.

Conflicts of interest and statements regarding members of the Board of Directors

To the best of Compagnie de Saint-Gobain's knowledge, as of February 1, 2023, there are no family relationships between the Company's Directors and, within the past five years, no Director has been found guilty of fraud, been associated with a bankruptcy, sequestration, liquidation or placed into court ordered administration, has been accused or received an official public sanction issued by a statutory or regulatory authority and/or been disqualified by a court from holding the office of a member of an administrative, management or supervisory body of an issuer of securities, or from taking part in managing or conducting an issuer's business.

To the best of Compagnie de Saint-Gobain's knowledge, there are no conflicts of interest between Compagnie de Saint-Gobain and the personal and professional activities of the members of its Board of Directors, and there are no service contracts between any members of the Board and either Compagnie de Saint-Gobain or any of its subsidiaries that provide for the conferral of benefits at the term of such contracts. The Lead independent Director reviewed for this purpose the responses provided by each Director to the questionnaire sent to them.

The Board's internal rules address conflicts of interest in the event such a situation arises: the concerned Director has the duty to inform the Chairman of the Board of Directors and the Lead independent Director thereof, and to refrain from participating in the discussions and deliberations on the subject in question (see section 9.1.1.B, p. 370).

Moreover, in accordance with Article L. 22-10-12 of the French Commercial Code, the Board has adopted a procedure for regularly assessing whether agreements relating to current operations and entered into under normal conditions meet these conditions. This procedure specifies in particular:

- the scope of the agreements at issue as well as a typology of the agreements that may be considered current for Compagnie de Saint-Gobain (excluding agreements that may be entered into with Directors); and
- the determination of the persons in charge, within the Corporate Secretariat, the Treasury and Financing Department, the Finance Department and the Corporate Legal Department, of the classification of such agreements depending on the nature of the agreements in question.

In 2022, no agreement falling within the scope of Article L. 225-38 of the French Commercial Code concerning related-party agreements was entered into between Compagnie de Saint-Gobain and its Directors.

Re-election of the Board of Directors and changes in its composition

The members of the Board of Directors may be re-elected in a staggered and balanced fashion as follows:

Date of expiration of the term of office	Director and date of first election
Upon completion of the General Shareholders' Meeting approving the financial statements for the fiscal year ended December 31, 2022	Dominique Leroy (November 2017) Lina Ghotmeh [(a)] (November 2021)
Upon completion of the General Shareholders' Meeting approving the financial statements for the fiscal year ended December 31, 2023	Jean-François Cirelli (June 2020) Iêda Gomes Yell (June 2016) Jean-Dominique Senard (June 2012)
Upon completion of the General Shareholders' Meeting approving the financial statements for the fiscal year ended December 31, 2024	Benoit Bazin (June 2021) Sibylle Daunis-Opfermann (March 2020) Pamela Knapp (June 2013) Agnès Lemarchand (June 2013) Gilles Schnepp (June 2009)
Upon completion of the General Shareholders' Meeting approving the financial statements for the fiscal year ended December 31, 2025	Pierre-André de Chalendar (June 2006) Thierry Delaporte (June 2021) Lydie Cortes (May 2018) Philippe Thibaudet (May 2018)

(a) *Lina Ghotmeh was co-opted by the Board of Directors on November 25, 2021, a co-option ratified at the General Shareholders' Meeting of June 2, 2022, to replace Mr. Denis Ranque, who resigned, for the remainder of his term of office, i.e., until the General Shareholders' Meeting of June 8, 2023.*

The resolutions concerning the terms of office of Directors to be presented to the General Shareholders' Meeting of June 8, 2023 will be examined by the Board of Directors at its scheduled meeting in March 2023.

Summary of changes in the composition of the Board of Directors

The following table shows the changes in the composition of the Board of Directors in the 2022 fiscal year:

	General Shareholders' Meeting of June 2, 2022
Cessation of duties	Anne-Marie Idrac (June 2011) [(a)]
Renewal	Pierre-André de Chalendar (June 2006) Lydie Cortes (June 2018) [(b)] Philippe Thibaudet (June 2018) [(b)]
Proposed nomination/ratification	Thierry Delaporte [(a)] Lina Ghotmeh [(a)]

(a) *Independent Director.*
(b) *Employee Director, not included in the ratio of independent Directors, in accordance with the recommendations of the AFEP-MEDEF Code.*

The following table shows the changes in the composition of the Board with regard to independence, representation of women, and representation of foreign members at the end of the General Shareholders' Meetings of June 3, 2021 and June 2, 2022:

	As from the General Shareholders' Meeting of June 3, 2021	As from the General Shareholders' Meeting of June 2, 2022
Percentage of independent Directors [(a)]	64%	73%
Percentage of women [(b)]	45%	45%
Percentage of foreign nationals [(c)]	27%	36%

(a) *In accordance with the rules set by the AFEP-MEDEF Code.*
(b) *Excluding Employee Directors and Directors representing employee shareholders. If they were included, the Board of Directors would have 50% women.*
(c) *Excluding Employee Directors appointed under specific mandatory legal provisions.*

Summary of changes in the composition of the Committees of the Board of Directors

The tables below show the changes in the composition of the three Committees of the Board of Directors during fiscal year 2022.

Audit and Risk Committee	Since the General Shareholders' Meeting of June 2, 2022
Chairperson	Pamela Knapp [(a)]
Members	Iêda Gomes Yell [(a)] Agnès Lemarchand [(a)] Gilles Schnepp

(a) *Independent Director.*

Nomination and Remuneration Committee	Since the General Shareholders' Meeting of June 2, 2022
Chairperson	Jean-François Cirelli [(a)]
Members	Lydie Cortes [(b)] Dominique Leroy [(a)]

(a) *Independent Director.*
(b) *Employee Director, not included in the ratio of independent Directors, in accordance with the recommendations of the AFEP-MEDEF Code.*

Corporate Social Responsibility Committee	Since the General Shareholders' Meeting of June 2, 2022
Chairperson	Agnès Lemarchand [(a)]
Members	Lina Ghotmeh [(a)] Jean-Dominique Senard [(a)(b)] Philippe Thibaudet [(c)]

(a) *Independent Director.*
(b) *Lead independent Director.*
(c) *Employee Director, not included in the ratio of independent Directors, in accordance with the recommendations of the AFEP-MEDEF Code.*

5.1.2 OPERATION OF THE BOARD OF DIRECTORS

Governance structure: changes in governance and succession of General Management since July 1, 2021

Combination of the Chairman of the Board and CEO roles until June 30, 2021

At its meeting of June 3, 2010, the Board of Directors of Compagnie de Saint-Gobain resolved to recombine the roles of Chairman of the Board of Directors and Chief Executive Officer by appointing Mr. Pierre-André de Chalendar as Chairman and Chief Executive Officer.

The combination of the roles of Chairman of the Board of Directors and Chief Executive Officer, which were separated in June 2007 to ensure a smooth handover of powers from Mr. Jean-Louis Beffa, was decided following the cessation, by application of the age limit set out in the bylaws, of the role of Chairman of the Board of Mr. Jean-Louis Beffa, who subsequently became honorary Chairman of Compagnie de Saint-Gobain, to Mr. Pierre-André de Chalendar.

Having discussed the matter on numerous occasions since the combination of the roles, the Board of Directors had concluded that combining the two roles was in the best interests of the company as it was well suited to Saint-Gobain and to the experience and highly transparent approach of the Chairman and Chief Executive Officer, and it helped to ensure more responsive and efficient corporate governance and strategy implementation.

The assessment of the Board's work, repeated every year since 2013, showed that almost all the Directors were satisfied with the combination of functions. The Board wanted this to be maintained during this period, including, in 2018, when the term of office of Mr. Pierre-André de Chalendar was renewed.

Changes in Saint-Gobain governance and succession to the Group's General Management on July 1, 2021

In line with best corporate governance practices, the Board of Directors of Compagnie de Saint-Gobain has been working extensively since 2019 under the responsibility of the Lead independent Director and the Nomination and Remuneration Committee, and with the assistance of an independent recruitment firm, on preparing the succession of Mr. Pierre-André de Chalendar, Chairman and Chief Executive Officer since 2010.

As a result of this process, the Board of Directors deemed it essential for Saint-Gobain that there is a seamless transition, by separating the roles of Chairman and Chief Executive Officer. On the recommendation of Mr. Pierre-André de Chalendar, the Board unanimously decided to appoint Mr. Benoit Bazin as Chief Executive Officer, effective July 1, 2021.

Since that date, Mr. Pierre-André de Chalendar has continued to serve as Chairman of the Board of Directors, the General Shareholders' Meeting of June 2022 having renewed his term of office as Director and the Board of Directors of June 2, 2022 having reappointed him as Chairman of the Board of Directors. Note, however, that Mr. Pierre-André de Chalendar indicated to the Board of Directors that he would only serve as Chairman for a maximum period of two years, i.e., no later than until the General Shareholders' Meeting of June 2024.

The Board of Directors also decided to propose the appointment of Mr. Benoit Bazin as Director of Saint-Gobain to the General Shareholders' Meeting of June 3, 2021, a proposal that was approved.

This corporate governance formula is recognized as the best practice to enable listed companies to ensure the transition during the necessary period in the context of the succession of the Chairman and Chief Executive Officer.

The Chief Executive Officer is vested with the broadest authority to act under all circumstances on behalf of the Company de Saint-Gobain within the scope of its corporate purpose and subject to the limits set by law, the bylaws and/or internal rules of the Board of Directors (see section 5.1.3 p. 182 and section 9.1.1 p. 368).

It should also be emphasized that the balance of power is assured on the Board, guaranteeing compliance with the rules of governance, by:

- the specific role played in respect of governance matters and management of conflicts of interests by the Lead independent Director, a position held by Mr. Jean-Dominique Senard, an independent Director (see below);
- the ability of the Directors to meet in the absence of the executive corporate officers during or after a Board meeting (see operating rules of the Board of Directors – internal rules, section 5.1.2 p. 171 and section 9.1.1 p. 368); and
- the limitation of the powers of the executive corporate officers regarding all capital expenditures, restructuring, disposals, acquisitions and financial investment and divestment projects in individual amounts greater than €150 million, and any material transaction that fall outside the scope of the Saint-Gobain Group's stated strategy, requiring the prior approval of the Board of Directors (see operating rules of the Board of Directors – internal rules, section 5.1.2 p. 171 and section 9.1.1 p. 368).

To this should be added:

- the role played by all members of the Board – especially, but not only, independent Directors, who account for 73% of the Board of Directors, three quarters of members of the Audit and Risk Committee and 100% of the members of the Nomination and Remuneration Committee, the Corporate Social Responsibility Committee and the Committee Chairpersons – all of whom are extremely competent and experienced; as well as
- the Director representing the main shareholder (the Group Savings Plan Funds); and
- the Employee Directors appointed by the Saint-Gobain Group Works Council in accordance with the Company's bylaws and in application of the law.

Lead independent Director

The Board of Directors, taking into account the development of the practice within companies in France chaired by a combined Chairman of the Board/CEO and the expectations of certain investors expressed during the Company's dialog with them, created the role of Lead independent Director, a position held by Mr. Jean-Dominique Senard, Lead independent Director, since June 8, 2017.

The Lead independent Director oversees in particular the efficient running of the Company's governance bodies. In particular, he is responsible for preventing the occurrence of conflicts of interest, leading the assessment of the organization and functioning of the Board of Directors, at the request of the Chairman of the Board of Directors, being a point of contact for shareholders of the Company on governance issues and, where applicable, meeting with them and, in conjunction with the Chairman of the Board of Directors, ensuring that the Directors receive the relevant information to exercise their duties. A description of his powers and the resources available to him, including the possibility of asking the Chairman of the Board of Directors to convene the Board meeting on a given agenda, including for executive sessions, can be found in section 9.1.1.B, p. 370.

Once a year, the Lead independent Director reports on his actions to the Board of Directors.

Activities during fiscal year 2022

In 2022, the Lead independent Director attended all meetings of the Board of Directors and of the Corporate Social Responsibility Committee of which he is a member.

At the meeting of the Board of Directors on February 23, 2023, Mr. Jean-Dominique Senard presented a review of his activity as Lead independent Director for fiscal year 2022. His work especially consisted of:

- working with the Nomination and Remuneration Committee to examine the independent status of the Directors in light of the criteria set out in the AFEP-MEDEF Code (including through the review of conflict of interests questionnaires and the analysis of business relationships);
- discussing with the Chairwoman [(1)] of the Nomination and Remuneration Committee and the Chairman of the Board of Directors the Chief Executive Officer's succession plan in the event of an unforeseeable vacancy;
- conducting the assessment of the organization and operation of the Board and its Committees, which took place as follows in November 2022:
  - the Lead independent Director reviewed the draft questionnaire to be submitted to the Directors prepared by the specialist consulting firm appointed to carry out the Board's assessment;
  - the Lead independent Director spoke with the Chairman of the Board and the Chairman of the Nomination and Remuneration Committee, and was available to the Directors who wanted to discuss the individual contributions of the Directors to the work of the Board in terms of their skills and their respective participation in deliberations;
  - the specialist consulting firm presented the results of the Board's assessment to the Directors, who discussed on this occasion the functioning of the Board.
- meeting, in view of the General Shareholders' Meeting of June 2, 2022, at the request and with the participation of the Chairman of the Board of Directors, and, at the end of 2022, in view of the General Shareholders' Meeting on June 8, 2023, at the request and with the participation of the Chairman of the Board Directors, several shareholders groups to discuss the governance of Saint-Gobain;
- chairing the discussions at a meeting of the Board held out of the presence of the Chief Executive Officer "*executive session*" in November 2022 about Group governance;
- reviewing the draft agendas for the meetings of the Board of Directors and the Committees in fiscal year 2023;
- reviewing section 5.1.1 p. 156 of this chapter on the "Composition of the Board of Directors" and section 5.1.2 p. 171 regarding the "Operation of the Board of Directors".

The Lead independent Director presented a summary of his fourth year in that office to shareholders at the General Shareholders' Meeting held on June 2, 2022.

Operating rules of the Board of Directors – internal rules

In line with the recommendations of the AFEP-MEDEF Corporate Governance Code for French listed companies, the Board of Directors adopted a set of internal rules in 2003, as a supplement to the applicable laws and regulations and the Company's bylaws, aimed at defining the conditions for the operation of the Board and its Committees (Nomination and Remuneration Committee, Audit and Risk Committee and Corporate Social Responsibility Committee), as well as the Lead independent Director's responsibilities and powers.

The version of the Board's internal rules in force at February 1, 2023, which incorporates successive revisions of the AFEP-MEDEF Code and the PACTE Law, is reproduced in its entirety in section 9.1.1.B p. 370, with the exception of the provisions regarding the Board Committees which are reproduced below.

Deliberations of the Board of Directors

The internal rules provide for Board activities to include the following:

- examination and approval of the Saint-Gobain group annual report and consolidated and corporate financial statements, both annual and bi-annual;
- examination and approval each year of the Saint-Gobain group budget;
- examination and approval of the strategic orientations of the Saint-Gobain group at least once a year and monitoring of their implementation, taking into account the social and environmental challenges of its business;
- prior approval of investment transactions, restructurings, disposals, acquisitions, taking or selling of equity interests in individual amounts greater than €150 million, and any significant transaction not falling within the strategy announced by the Saint-Gobain group.

(1) *Mrs. Anne-Marie Idrac was chairwoman of the Nomination and Remuneration Committee until June 2, 2022.*

Ability to debate without the presence of the executive corporate officers

The Board's current internal rules afford Directors the authority to meet without the presence of the executive corporate officers during or after a session, in order to assess the performance of the executive corporate officers and to reflect on the future of the Saint-Gobain's Group General Management. Thus, each year, the Chief Executive Officer leaves the sessions of the Board and the Nomination and Remuneration Committee during such discussions (deliberations and votes) on issues involving the assessment of his performance and the setting of his variable compensation (February sessions), as well as during the Board's assessment, of governance issues, and on his long-term compensation scheme (November sessions). In November 2021, a meeting of the Board of Directors was held exclusively without the presence of the Chief Executive Officer, as well as in November 2022.

The Board intends to continue to meet in 2023 without the presence of the executive corporate officers to discuss governance issues more generally, beyond the issues of executive corporate officer compensation and the assessment of the Board. This option applies at the start of every meeting of the Board of Directors.

Prior and permanent information for Directors

At each meeting, the Board is provided with an analysis of the Saint-Gobain group's operating income and net debt situation, prepared as of the end of the month preceding the meeting.

Between meetings, the Directors receive copies of all press releases issued by Compagnie de Saint-Gobain and, as the case may be, any relevant information about events or transactions that are material for Saint-Gobain. They are entitled to request any other documents they consider necessary to make an informed contribution to the Board's discussions; requests are put to the Chairman of the Board of Directors, who may submit the request to the Board for a decision.

The Chairman of the Board of Directors and the Lead independent Director ensure that the Directors receive the information they need to perform their duties under the best possible conditions.

Directors' duties

The internal rules stipulate the duties of Directors, specifically with regard to stock trading ethics (status of occasional insider, closed periods, reporting of trades involving Saint-Gobain securities and the obligation to hold their Saint-Gobain shares in registered form), with regard to confidentiality and the management of potential conflicts of interest.

Other provisions in the internal rules

Finally, the internal rules provide for the distribution of the annual amount allocated by the General Shareholders' Meeting as compensation for the work of the Directors and the right of Directors to additional training on the specific activities of the Saint-Gobain group, its businesses, business lines, and Corporate Social Responsibility challenges (section 9.1.1, p. 368).

Principal activities of the Board and its Committees during fiscal year 2022

Principal activities of the Board during fiscal year 2022

The Board of Directors held nine meetings during the 2022 fiscal year (compared with eleven in 2021). The attendance rate of the Directors in office as of February 1, 2023 for all of those sessions was 99%. Thirteen of the fourteen Directors attended every meeting of the Board. One Director missed only one meeting. No Director missed more than one meeting.

The table below summarizes the attendance of Directors, on an individual basis, at meetings of the Board of Directors and its Committees (Audit and Risk Committee, Nomination and Remuneration Committee and Corporate Social Responsibility Committee) of which they are members as of February 1, 2023.

	Attendance at			
	9	4	4	4
First and last name (function)	Board meeting [a]	meetings of the Audit and Risk Committee	meetings of the Nomination and Remuneration Committee	meetings of the Corporate Social Responsibility Committee
Pierre-André de Chalendar *(Chairman of the Board of Directors)*	100%	_	_	_
Benoit Bazin *(Chief Executive Officer)*	100%	_	_	_
Jean-François Cirelli *(Independent Director)*	100%	_	100% [c]	_
Lydie Cortes *(Employee Director)*	100%	_	100%	_
Sibylle Daunis-Opfermann *(Director representing employee shareholders)*	100%	_	_	_
Thierry Delaporte *(Independent Director)*	100% [b]	_	_	_
Lina Ghotmeh *(Independent Director)*	89% [a]	_	_	100%
Iêda Gomes Yell *(Independent Director)*	100%	100%	_	_
Pamela Knapp *(Independent Director)*	100%	100%	_	_
Agnès Lemarchand *(Independent Director)*	100%	75% [d]	_	100%
Dominique Leroy *(Independent Director)*	100%	_	75% [d]	_
Gilles Schnepp *(Director)*	100%	100%	_	_
Jean-Dominique Senard *(Lead independent Director)*	100%	_	_	100%
Philippe Thibaudet *(Employee Director)*	100%	_	_	100%

(a) *The 89% rate corresponds to one missed Board meeting.*
(b) *As of June 2, 2022, date of his appointment as a Director by the General Shareholders' Meeting.*
(c) *As of June 2, 2022, date of his appointment as a member of the Nomination and Remuneration Committee.*
(d) *The 75% rate corresponds to one missed committee meeting.*

The principal topics discussed during Board of Directors meetings are listed below.

Monitoring of the Group's strategic orientations, its geographical presence and its business lines

At each meeting except for meetings held on the same day as the General Shareholders' Meeting, consistent with its internal rules, the Board analyzed the Group's situation. In addition, during each of these meetings, including a full-day seminar dedicated to the presentation of the Group's strategy, the Board reviewed and approved the Group's strategic orientations or examined its pipeline M&A or a specific aspect of the strategy such as:

- comparison with the main competitors;
- the position of a business or a region after having heard, if relevant, an operational manager from the relevant business lines or regions;
- a presentation of the Innovation, Digital or Net Zero Carbon roadmaps.

The Board also examined the proposed disposals, in particular the disposal of its distribution activity in the United Kingdom (see section 2.3.7, p. 68). It also reviewed proposed acquisitions, including Kaycan (see section 2.3.7, p. 68).

In addition, it examined the Group's geographical exposure, particularly with regard to the war in Ukraine and its consequences. Furthermore it looked at the issue of the Group's exposure to China, in particular given the disruption caused by Covid.

The Board also monitored the progress of the Group's cost reduction and operational excellence measures year on year.

Financial management

Pursuant to its legal competency, the Board approved the annual and consolidated financial statements, and the interim consolidated financial statements, as well as the various reports relating to them, after hearing the opinions of the Chairwoman of the Audit and Risk Committee and the Statutory Auditors. The Board also approved the draft resolutions submitted to the General Shareholders' Meeting of June 2, 2022, in particular the proposed dividend distribution, and the reports made available to shareholders, and convened the meetings of shareholders and holders of Titres Participatifs. It approved the report on payments made to Governments (extractive industries).

It approved the budget of the Saint-Gobain group presented by Mr. Benoit Bazin, the various provisional management reports and documents, renewed the annual authorizations granted to the Chief Executive Officer, to issue bonds, sureties, and guarantees. It also reviewed the procedure applicable to the current agreements entered into under normal terms and conditions and examined the related-party agreements entered into during previous fiscal years, the execution of which was ongoing during fiscal year 2022.

It approved the implementation of the Company's share buyback program.

Internal control and risk management

The Board of Directors undertakes an annual review of the internal control and risk management processes in force within the Group, following analysis of the mapping of major financial and non-financial risks updated in 2022 by the Audit and Internal Control Department, and after hearing the report of the Chairwoman of the Audit and Risk Committee on these topics.

In particular, the Board of Directors examines and monitors the continued roll-out of the cyber plan regarding the cybersecurity of the Saint-Gobain group and of the post-audit monitoring plan. It was decided to implement, following the 2017 NotPetya cyberattack, an annual monitoring plan and a general external audit of Saint-Gobain Group's IT at the request of the Audit and Risk Committee. This audit was conducted annually over the period 2018-2021. In 2022, sufficient progress had been made in order to move to a permanent and automated control system. In this context, audits will now be carried out every two years, with the next audit taking place at the beginning of 2023. In addition to external audits, Saint-Gobain has obtained certifications at the level of some of its activities or factories (SOC2 certification for GCP, TISAX certification for several High Performance Solutions factories).

It was also informed of the compliance program.

In addition, it examined the Group's geographical exposure (see above).

On several occasions, it reviewed the position of the Company and Group with regard to certain risks (especially energy risk), procedures, litigation (notably in relation to asbestos, competition, the Grenfell Tower fire in the United Kingdom, and PFOA) and the evolving regulatory environment.

Finally, the Board of Directors reviewed the services assigned to the Statutory Auditors and their network as authorized by the Audit and Risk Committee.

Corporate Social Responsibility/Climate change

Over five sessions, one point on the agenda was dedicated to Corporate Social Responsibility matters, more specifically the following topics:

- "Solutions for Growth", a program that analyzes all the products and services offered by the Group and quantifies their ability to provide customers with performance and sustainability benefits;
- non-financial information;
- CO_2 roadmap and environmental strategy in line with the objectives for 2030, validated by the Science-Based Targets Initiative contributing to carbon neutrality by 2050, with many levers including product weight reduction, World Class Manufacturing (WCM), circularity, innovation, improvements to processes and the use of decarbonized energy (see section 3.1.3 p. 76 and section 3.3 p. 100);
- responsible purchasing with particular attention to scope 3 in order to align the value chain and CO_2 objectives;
- review of the compliance program (competition, embargoes, anti-corruption) (see section 3.1.5, p. 86);
- the human resources policy (see section 3.2.2 p. 91 and below) and in particular, the non-discrimination and diversity policies both at Group level and for the Senior Management. With regard to gender diversity, the Board of Directors has noted the progress made and new measures were adopted in 2020 and 2022, on the proposal of the General Management, setting gender diversity targets within the management bodies of Compagnie de Saint-Gobain and its subsidiaries by 2025: namely 30% women executives, 25% of women Senior managers, 30% of women on the Executive Committee of Compagnie de Saint-Gobain, and on the Executive Committees of the Business Units, and 40% of women overall on the boards of the Business Units. To achieve these targets, it was decided to require that at least 40% of new hires be women and require gender diversity among spokespersons. The monitoring of these objectives was discussed at the Board meeting of November 2022;
- presentation of the results of the me@Saint-Gobain 2022 survey, a tool for assessing and managing the Group's transformation, with more than 125,000 employees responding to this survey in 75 countries;
- various actions in favor of inclusions, such as solidarity actions facing emergency situations (war in Ukraine), the implementation within the Group of diversity and inclusion programs with the objective of considering all types of potential discrimination (gender, disability, social and ethnic origins, etc.), and the development of training in construction trades with multiple societal and inclusive actions and operations adapted to the challenges, local needs and cultures.

In April 2022, the Directors took part in training organized specifically for them by the group, entitled "The City of the Future". On this occasion, external experts, recognized internationally and with complementary skills gave presentations to the Directors and discussed the following subjects with them:

- major trends for the city of the future;
- city and building design – weather architecture – healthy architecture; and
- the transformation of large urban areas facing climate change.

The purpose of this seminar was to give each Director a better understanding of the challenges related to urban development in the world of the future for the Saint-Gobain Group and the consequences for its strategy.

It is recalled that the Directors had participated in seminars in February 2018, April 2019, April 2020 and April 2021 devoted, respectively to climate change and its consequences for companies, the circular economy and its challenges for companies, the transformation of energy and industrial systems in a zero-carbon economy, and biodiversity.

Governance

In accordance with the AFEP-MEDEF Corporate Governance Code for listed companies and under the supervision of the Lead independent Director, the Board formally conducted the annual assessment of its operations, with the help of a specialist consulting firm, and discussed the results of this assessment (see assessment of the Board's performance, section 5.1.2, p. 171).

It satisfied itself that a succession plan for the Chief Executive Officer, in the event of an unforeseeable vacancy, exists and has been implemented.

The Nomination and Remuneration Committee initiated discussions and work on the Company's governance, as the terms of office of the Chairman of the Board Mr. Pierre-André de Chalendar and that of the Lead independent Director Jean-Dominique Senard will expire in June 2024.

The Board of Directors reviewed the situation of Director independence. At the proposal of the Nomination and Remuneration Committee, it also discussed changes in its size and composition due to the expiration of the terms of office of certain Directors.

Lastly, it ruled on the training program for the Employee Directors.

Compensation of corporate officers and long-term incentives for executive corporate officers and employees

At its meeting of February 24, 2022, the Board approved the general principles of the executive corporate officer's compensation policy (i.e., the one of the Chairman of the Board of Directors, and the one for the Chief Executive Officer), for 2022 and, at its meeting of February 23, 2023, for 2023 (see section 5.2.1, p. 183).

In particular, it reviewed and approved the various components of the compensation of Mr. Benoit Bazin (fixed portion, variable portion and long-term compensation instruments) and the respective balance of those various components.

At its meeting of November 24, 2022, the Board also decided to implement and approve the main characteristics of the 2022 performance share plan and set the performance criteria of that plan that may benefit executive corporate officers and certain categories of employees (see section 5.2.4, p. 209).

As part of the ongoing development of employee shareholders, the Board resolved to again offer its employees and former employees the opportunity to subscribe to, under certain conditions, a share capital increase reserved for them in 2023, up to a maximum of approximately 8.1 million shares, i.e., approximately 1.6% of the share capital (see section 7.1.6, p. 253).

Principal activities of the Committees during fiscal year 2022

Board Committees

The Board has three Committees designed to facilitate its functioning and contribute effectively to the preparation of its deliberations: the Audit and Risk Committee, the Nomination and Remuneration Committee and the Corporate Social Responsibility Committee.

These Committees do not have their own decision-making authority (barring specific provision otherwise provided for by the internal rules of the Board of Directors as regards the Audit and Risk Committee's approval of services other than the certification of accounts assigned to the Statutory Auditors), and report to the Board regarding their activities, conclusions, and proposals.

The Board's internal rules incorporate the rules governing the composition, prerogatives, and responsibilities of each Committee, as described below.

The activities of these three Committees during fiscal year 2022 were regularly presented to the Board in the form of activity reports and proposals.

Composition of Committees

The Board's practice is to allow some time for all new Directors to adapt before proposing them to join a Committee, since active participation on a Committee requires familiarity with the operation of the Board of Directors and the ability to understand the major challenges with which the Company is faced.

At the recommendation of the Nomination and Remuneration Committee, the Board of Directors thus considers, on a case-by-case basis, the opportunity to propose to Directors their participation in one of the three Committees, depending upon the most appropriate schedule. Further, in its examination of the composition of the Committees and appointment of new Directors to these Committees, the Board ensures compliance with the recommendations of the AFEP-MEDEF Code with regard to the proportion of independent Directors on these Committees.

Audit and Risk Committee

Composition	
Chairperson	Pamela Knapp
Members	Iêda Gomes Yell Agnès Lemarchand Gilles Schnepp

75% independent directors

93% attendance rate

At February 1, 2023, three of the four members of the Audit and Risk Committee are independent Directors (75%), including its Chairwoman. No executive corporate officers sit on the Committee.

By virtue of their current or past positions as Chief Financial Officers and/or Chief Executive Officers, each Committee member has considerable experience and high-level expertise in financial and accounting matters (see biographies section 5.1.1, p. 156).

The Audit and Risk Committee is chaired by Mrs. Pamela Knapp who began her career as a consultant in the field of mergers and acquisitions, was Chief Financial Officer of Siemens SA, Belgium and Luxembourg, then in the Power Transmission & Distribution sector of Siemens Group. She is currently a member of the Supervisory Board of Lanxess AG (a company listed in Germany) and Signify NV (a company listed in the Netherlands), and sits on the Audit Committees of each of these companies. Among other offices, she was also a member of the Supervisory Board and the Finance and Audit Committee of Peugeot SA from 2011 to 2021.

Mrs. Ieda Gomes Yell has senior management experience in a large international group and strong financial expertise. In particular, she was Director and member of the Audit and Risk Committee and of the Strategic Committee of Bureau Veritas from 2013 to 2021.

Mrs. Agnès Lemarchand has held General Management positions primarily in industrial groups in the construction sector, and internationally, enabling her to provide financial expertise as well as a business vision useful for internal control and risk management. She is also Director and member of the Audit Committee of BioMérieux.

Mr. Gilles Schnepp began his career at Merrill Lynch where he was head of the Bonds and Derivatives Departments. He brings his extensive financial experience to the Committee, particularly given his experience as Chief Financial Officer and Chairman and Chief Executive Officer of Legrand, Chairman of the Board of Directors of large listed companies and Chairman of the Finance and Audit Committee of Peugeot SA from 2019 to 2021, bearing in mind that he is currently Chairman of Danone's Board of Directors.

It should be noted that each newly appointed member consults with the Group's Chief Financial Officer on specific accounting, financial and operational aspects of the Saint-Gobain group.

Responsibilities (excerpts from the Board's internal rules)

In accordance with the internal rules of the Board of Directors effective on February 1, 2023, the Audit and Risk Committee has the following responsibilities:

- without encroaching on the role of the Board of Directors, the Audit and Risk Committee is primarily responsible for overseeing the following matters:
  - the process of preparing financial and non-financial accounting information,
  - the efficiency of the internal control and risk management systems,
  - work performed by the Statutory Auditors on the financial statements of the Company and the Group,
  - Statutory Auditors independence;
- it ensures that any questions relating to the preparation and control of financial and non-financial accounting information are followed up on, that the accounting policies used to prepare the financial statements are both appropriate and applied consistently from one period to the next, and that the internal procedures used to collect and control accounting and financial information provide the necessary assurance in this regard;
- it reviews the annual and consolidated financial statements, and the interim consolidated financial statements, as presented by General Management, prior to their examination by the Board of Directors;
- it reviews the scope of consolidation and, if applicable, the reasons why any companies have been excluded;
- it reviews significant risks, including those of a social and environmental nature, and off-balance sheet commitments, based on an explanatory report prepared by the Chief Financial Officer;
- it receives updates from general management on organization and operation of the risk management system;
- it reviews the Group's internal control action plan and receives updates at least once a year on the plan's results;
- it makes recommendations concerning the organization of the internal audit function and receives a copy of the internal audit program as well as executive summaries of the internal audit reports;
- it reviews the external Statutory Auditors' work plan and conclusions of their checks. It receives a post-audit report prepared by the Statutory Auditors concerning their main observations and the accounting options selected for preparation of the financial statements;
- it conducts the Statutory Auditor selection process, expresses an opinion on the amount of proposed statutory audit fees requested for performing tasks connected with a statutory audit, submits the results of the selection process to the Board and puts forward candidate Statutory Auditors for appointment by the General Shareholders' Meeting;
- it approves, with regard to rules in force and in accordance with the procedures implemented within the Group, under the responsibility of the Board of Directors, the services other than the certification of the accounts they can be assigned to the Statutory Auditors and members of their network to be provided to Compagnie de Saint-Gobain and other Group entities;

- each year it reviews the Statutory Auditors statement of independence, the amount and breakdown of the fees paid to them and to the members of their network by the Saint-Gobain Group over the past year, by category of service, as well as the percentage of these fees in their turnover, and reports to the Board its opinion concerning the Statutory Auditors' independence.

Operation during fiscal year 2022

The Audit and Risk Committee met four times in 2022, in February, April, July and September. The attendance rate of its members at all these meetings was 93%.

The following were the major topics of discussion:

- detailed advance review of the annual and consolidated financial statements (February) and the interim consolidated financial statements (July) and discussions with General Management, the Finance Department and the Statutory Auditors. On these occasions, the Committee discussed with the Statutory Auditors the main audit issues raised with the Finance Department during the accounts closing process, particularly the key risk exposures, in particular climate risks, and material off-balance sheet commitments described in the Chief Financial Officer's explanatory note to the Committee. The main points of the results of the statutory audit, as well as the accounting options applied, were also discussed;
- review of the Audit and Internal Control Department's activity report for 2022, its audit plan for 2023 and its report on major fraud incidents;
- review of work related to the 2022 update of the mapping of major financial and non-financial risks by the Audit and Internal Control Department and discussion with General Management, the Finance Department and the Audit and Internal Control Department;
- update on the continued deployment of the cyber plan regarding the cybersecurity of the Saint-Gobain Group;
- update on the compliance program with a presentation by the Group Head of Compliance, particularly concerning the anti-corruption program pursuant to the Sapin II Law, competition law and economic sanctions and control of exports;
- situation resulting from the development of litigation, in particular related to asbestos in the United States, the Grenfell Tower fire in the United Kingdom and PFOA, its exposure to certain countries whose geopolitical situation has been or is changing, and changes in the regulatory environment. The Committee regularly discusses in detail with the Statutory Auditors the financial and accounting consequences, including the related provisions, of this litigation for the US subsidiaries involved and for the Group, in order to present a report on this issue to the Board;
- update on the product compliance program;
- review of the procedure for approving non-audit services;
- granted authorization for services other than statutory certification assigned to the Statutory Auditors and review of fees received by each Statutory Auditor of the Group's companies during fiscal year 2022 for their auditing assignments, as well as for their other services (see section 9.1.4 note 14, p. 374).

In addition, the Committee interviewed the Statutory Auditors (without any other attendance), and then interviewed individually the Head of Treasury and Financing, the Head of Financial Management and the Chief Financial Officer, in accordance with the recommendations of the AFEP-MEDEF Code of Corporate Governance for listed companies.

The Committee reported to the Board on its activities and offered its recommendations during the Board meetings of February 24, 2022, April 21, 2022, July 27 and September 29, 2022.

Nomination and Remuneration Committee

Composition	
Chairperson	Jean-François Cirelli
Members	Lydie Cortes Dominique Leroy

100% independent directors

93% attendance rate

On February 1, 2023, two out of three members of the Nomination and Remuneration Committee were independent Directors, plus one Employee Director in accordance with the recommendations of the AFEP-MEDEF Code (see section 5.1.1, p. 156). The Employee Director is not included in the computation of the ratio of independent Directors, in accordance with the recommendations of the AFEP-MEDEF Code and the Committee is therefore composed entirely of independent Directors.

Mr. Jean-François Cirelli has chaired the Committee since the General Shareholders' Meeting of June 2, 2022, replacing Mrs. Anne-Marie Idrac, whose term of office ended. He is currently Chairman of BlackRock France, Belgium, and Luxembourg, one of the world's largest asset managers. In the past, he was notably Chairman and CEO of *Gaz de France*.

Mrs. Dominique Leroy has held executive positions in a large international group.

Therefore, the members of the Nomination and Remuneration Committee have extensive experience, particularly in the areas of governance and remuneration (see their biographies in section 5.1.1, p. 166).

Lastly, Mrs. Lydie Cortes, Employee Director, seats also on the Nomination and remuneration Committee.

Responsibilities (excerpts from the Board's internal rules)

The Committee fulfills the duties of both a Nominations Committee and a Compensation Committee, provided for in the AFEP-MEDEF Corporate Governance Code for French listed companies.

According to the Board of Directors' internal rules in force at February 1, 2023, it has the following responsibilities:

- the Nomination and Remuneration Committee is responsible for making proposals to the Board of Directors in all cases where one or more seats on the Board fall vacant or the terms of one or more Directors are due to expire. The Committee organizes the procedure to select candidates for election as independent Directors, based on the criteria set out in the AFEP-MEDEF Code;
- it reviews annually each Director's situation in relation to the independence criteria set out in the AFEP-MEDEF Code, and reports its conclusions to the Board;
- through its Chairman, it obtains assurance from the Chief Executive Officer that a candidate has been identified for succession to his/her position in the event that it falls vacant for an unforeseen reason, and that enough potential successors are available to step in when they might be needed;
- it recommends candidates to the Board in the event that the position of Chairman and Chief Executive Officer falls vacant for any reason;
- it reviews any proposals by Chief Executive Officer for the appointment of one or more Chief Operating Officers, and reports its conclusions to the Board;
- it makes recommendations to the Board concerning the amount and terms and conditions of the compensation of the Chairman of the Board of Directors and concerning the determination of the other aspects of their positions;
- it makes recommendations to the Board of Directors concerning the amount and terms and conditions of the compensation of executive corporate officers, in particular the criteria for the variable portion of the Chief Executive Officer, and, where applicable, of the Chief Operating Officers, and concerning the determination of the other aspects of their positions;
- it discusses the Group's overall stock option and performance share policy and whether options should be exercisable for new or existing shares, and reviews General Management's proposals concerning stock option and performance share plans for the Saint-Gobain Group employees;
- it reviews the Chief Executive Officer's recommendations concerning his implementation of long-term compensation plans;
- it makes recommendations concerning the granting of stock options, performance shares and long-term compensation to the Chief Executive Officer and other members of the Saint-Gobain Group General Management.

Operation during fiscal year 2022

The Nomination and Remuneration Committee met four times in 2022, in February, March, September and November. The attendance rate of its members at all these meetings was 93%.

The following were the major topics of discussion:

- the Committee made its recommendations to the Board on the setting of the variable portion of the compensation of the Chairman and Chief Executive Officer and the Chief Operating Officer for the period from January 1, 2021 to June 30, 2021 and the Chief Executive Officer for the period from July 1, 2021 to December 31, 2021;
- it also made proposals to the Board, pursuant to the ex ante Say-on-Pay regime, concerning the 2022 compensation policy for the Chairman of the Board of Directors (proposal to maintain the compensation policy established in 2021 for the entire duration of his term of office) and for the Chief Executive Officer (in particular, the amount of the fixed compensation and the cap, the criteria and the targets to use to determine the variable portion for 2022 and the rules on caps to be applied with respect to the allocation of long-term compensation instruments in 2022);
- the Committee proposed to the Board of Directors to submit to the General Shareholders' Meeting of June 2, 2022 the appointment of Thierry Delaporte, the ratification of the co-option of Mrs. Lina Ghotmeh and the renewal of the term of office of Pierre-André de Chalendar, which was due to expire at the end of the Meeting of June 2, 2022. Finally, the Committee proposed, if the Meeting did renew his term of office, as part of the transition with Mr. Benoit Bazin, to renew Mr. Pierre-André de Chalendar's term of office as Chairman of the Board of Directors; and to maintain the position of Lead independent Director – currently held by Mr. Jean-Dominique Senard;
- the Committee decided to propose that the Board of Directors grant only performance shares in 2022, as in 2021, and notably set the service and performance criteria applicable to those plans and stated to the Board its proposals for allocations to the Chief Executive Officer;
- the Committee examined the Directors' independence status with regard to all independence criteria set forth in the AFEP-MEDEF Code, together with the Lead independent Director with regard to conflicts of interest and business relationships (see section 5.1.1, p. 166);
- it made proposals regarding the training program of the Employee Directors and the Director representing employee shareholders;
- finally, it reviewed the "Corporate Governance" section of the 2021 Universal Registration Document.

The Committee reported to the Board on its activities and offered its recommendations during the Board meetings of February 24, March 24, September 29 and November 24, 2022.

Corporate Social Responsibility Committee

Composition	
Chairperson	Agnès Lemarchand
Members	Jean-Dominique Senard Philippe Thibaudet Lina Ghotmeh

100%

attendance rate

The Corporate Social Responsibility Committee is chaired by Mrs. Agnès Lemarchand. She has held General Management positions in particular in industrial groups in the construction sector, was a member of the Economic, Social and Environmental Council from 2012 to 2014, and is currently a member of the ESG Committee of the *Institut Français des Administrateurs* (French Institute of Directors).

Mrs. Agnès Lemarchand also sits on the Audit and Risk Committee. As such, she ensures consistency between the work of the Audit and Risk Committee and that of the Corporate Social Responsibility Committee, particularly with regard to the examination of environmental and societal risks and associated control procedures, as well as with regard to non-financial information.

Mrs. Lina Ghotmeh, an internationally renowned architect, has expertise in innovation for sustainable architecture. She also contributes to the Committee her knowledge of materials and the circular economy.

Mr. Philippe Thibaudet, Employee Director, has a very high level of knowledge of the Group and its business lines as well as social issues more generally. He is currently EHS Officer at Saint-Gobain Isover in Chalon-sur-Saône.

Mr. Jean-Dominique Senard has experience as a manager and Director of major industrial groups. His functions have raised his awareness of responsible development, social dialog and governance. In particular, he co-authored with Nicole Notat the Notat-Senard report entitled "The Company, a Matter of Public Interest", which contributed to the strengthening of CSR under the Pacte law. As Lead independent Director, he meets with several shareholder groups each year to discuss Saint-Gobain's governance.

Responsibilities (excerpts from the Board's internal rules)

According to the Board of Directors' internal rules in force at February 1, 2023, it has the following responsibilities:

The Corporate Social Responsibility Committee is responsible for reviewing the Corporate Social Responsibility roadmap, its potential for improvement and the related topics proposed by its members.

It ensures that Corporate Social Responsibility topics are taken into account when defining and implementing the Group's strategy.

Operation during fiscal year 2022

The Corporate Social Responsibility Committee met four times in 2022, in February, June, September and November. The attendance rate of its members at all these meetings was 100%.

Its work focused on:

- the review regarding their levels of ambition of the sub-criteria of the performance criterion related to Corporate Social Responsibility to which the long-term compensation plan implemented in November 2022 is in particular subject, namely: the total recordable accident rate – more than 24 hours' lost and non-lost time (TRAR), the reduction rate of CO_2 emissions and the senior executives diversity index (see section 5.2.4, p. 209);
- the review of the CO_2 roadmap and environmental strategy in line with the objectives for 2030 and 2050, which includes numerous levers including product weight reduction, World Class Manufacturing (WCM) and the use of decarbonized energy;
- "Solutions for Growth", a program that analyzes all the products and services offered by the Group and quantifies their ability to provide customers with performance and sustainability benefits: presentation and progress report;
- presentation of the results of the me@Saint-Gobain 2022 survey, a tool for assessing and managing the Group's transformation, with more than 125,000 employees responding to this survey in 75 countries;
- responsible purchasing, with a presentation including an introduction of the value chains on the planet and its social and societal issues, and with a particular focus on "scope" 3 in order to align the value chain and the CO_2 objectives;
- various actions in favor of inclusion, such as solidarity actions in the face of emergency situations (war in Ukraine), the implementation within the Group of diversity and inclusion programs with the objective of taking into account all types of potential discrimination (gender, disability, social and ethnic origins, etc.), and the development of training in construction trades with multiple societal and inclusive actions and operations adapted to local issues, needs and cultures;
- the review of chapters 3 and 4 of the Universal Registration Document for 2021 relating respectively to Corporate Social Responsibility, non-financial performance and the declaration of non-financial performance (DPEF), and Taxonomy reporting.

The Committee reported to the Board of Directors on its activities in its meetings of February 24, July 27, September 29 and November 24, 2022.

Assessment of the Board's performance

Procedure

Formal assessments of the Board's performance and that of the Committees are carried out each year, in accordance with the Board's internal rules.

These assessments are conducted with the assistance of outside consultants (as in 2022) every three years.

In the intervening years, it is carried out on the basis of a questionnaire sent to each of the Directors.

In line with best practices allowing the Directors to receive feedback on their individual contribution, the assessment also includes the following three stages:

- confidential review of each Director's individual contribution by the Chairman of the Nomination and Remuneration Committee, the Lead independent Director and the Chairman of the Board of Directors;
- individual review for each Director with the Chairman of the Board of Directors; and
- the option for every Director who wishes so, to request feedback on his/her individual contribution from the Chairman of the Board or the Lead independent Director.

The Directors who are members of a Board Committee also report on the operation of the Committees in which they participate.

The organization of the 2022 assessment was decided by the Board at its meeting of September 29, 2022, on proposal from the Lead independent Director. The 14 Directors in office as of that date were consulted and participated in the Board's assessment process conducted by the specialist consulting firm.

The specialist consulting firm met each Director individually on the basis of a questionnaire validated in advance with the Lead independent Director, the Chairman of the Board of Directors and the Corporate Secretary.

It reported on the results of this assessment to the Board of Directors on November 24, 2022.

General observations

The assessment process highlighted the satisfaction of Directors with the smooth transition provided by Mr. Pierre-André de Chalendar and Mr. Benoit Bazin. In addition, they emphasized the role played by the Lead independent Director in terms of governance.

All Board members also noted the existence of a strong alignment between the Directors and General Management with respect to the corporate purpose, strategy and risk management within the Group. The Board members also welcomed the trust between Directors and between the Board and the management team, enabling constructive discussions.

The main areas of work of the Board of Directors identified during the assessment are future governance, succession planning for Directors bearing in mind upcoming term end dates, and the continued success of the Group's new strategy.

The questionnaire and individual interviews covered the following five categories: (i) corporate purpose, strategy and risk management, (ii) composition of the Board, (iii) management of the Board, (iv) operation of the Board and its Committees, and (v) the culture.

Corporate purpose, strategy, risk management

The assessment reveals the satisfaction and alignment of Directors and General Management with the implementation of the strategy proposed by the Chief Executive Officer, a strategy of which the Board members emphasize the clarity, relevance and consistency with Saint-Gobain's corporate purpose, "Making the world a better home".

The Board unanimously notes that CSR is a strategic lever for the Group and that non-financial indicators and the impact on CSR are at the heart of the Group's business model.

In addition, the Board is actively involved in the preparation of M&A operations. Risk management is well covered by the Audit and Risk Committee, and these issues are well monitored by the Board.

The Directors particularly appreciate the strategic seminar that they consider to be extremely useful and well-constructed.

Composition of the Board of Directors

With regard to the composition of the Board, the diversity and complementarity of sectoral and functional skills within the Board are judged very positively by its members, both in terms of knowledge of the industry or the Group's business lines (including construction) and in terms of innovation/digital technology, general management, strategy, finance, governance and/or Corporate Social Responsibility (see the biographies and the skills matrix in section 5.1.1, p. 156). In particular, the Directors stress the contribution of experienced managers to the Board.

The Board members also welcome the constructive contribution of Employee Directors.

Finally, the assessment process highlights the high quality of the Executive Committee, which is a renewed, diverse team in line with the Group's strategy.

Management of the Board

The Directors unanimously welcomed the role of its Chairman, who leads the debates in an exemplary way and whose actions contribute to the continuous improvement of the Board's operation. The Chief Executive Officer has fully assumed his duties: he proposes to the Board the Group's strategy and, in charge of operations, implements it successfully.

The Directors also considered the interaction between the Chief Executive Officer and the Chairman of the Board of Directors to be very good, emphasizing their mutual trust.

The Board's open and transparent mode of operation is highly appreciated. The Directors believe that the trust and the richness of the dialogue between Directors and between the Board and the management team, in particular Mr. Benoit Bazin and the various members of his Executive Committee team, enable constructive discussions and consensus decision-making.

In addition, the role of Lead independent Director, whose experience and skills in terms of governance were welcomed, is considered positively by the Directors.

The entire Board is satisfied with the chairmanship of the various Committees.

Operation of the Board and its Committees

During the assessment, the Directors welcomed the effectiveness of the Chairman of the Board/Chief Executive Officer duo. They highlighted the clarity in the definition of each person's responsibilities, and the balance found by each of them in their respective functions.

The work of the Board's Committees was judged to be of excellent quality, with efficient and transparent operation of the various Committees.

Culture

According to the assessment, all of the Directors judged the Board of Directors to be collegial and united, in line with Saint-Gobain's corporate culture. The relationships of trust existing within the Board are appreciated by its members.

Results of implementing the 2022 recommendations and paths for 2023

Directors believe that the recommendations formulated upon completion of the 2021 assessment were duly taken into account in 2022. In particular, they were as follows:

- continue to reduce the age and broaden the international scope of the Board by recruiting a Director from the construction or infrastructure value chain, or experience in technology or digital technology or expertise in Corporate Social Responsibility or innovation, or a serving CEO or one with such experience within other major groups; the co-optation of Mrs. Lina Ghotmeh and the appointment of Mr. Thierry Delaporte are in line with this, given their respective skills and experience;

- enlarge the Board of Directors by one additional member in order to allow the appointment of candidates meeting the targeted profiles and prepare for the future in view of the renewals that must take place in the coming years;
- continue to focus on the following topics: the climate change and its strategic impact, value creation and stock market performance, innovation, growth levers;
- continue to regularly monitor the impacts of the Covid-19 pandemic on the Group and its strategy;
- regularly monitor the implementation of the Grow & Impact plan;
- continue the practice of executive sessions;
- organize training sessions on topics of interest to Saint-Gobain's activities;
- organize meetings on the Group's achievements to innovate and develop new products and the results obtained.

In order to sustain progress, the Board adopted the following conclusions on the proposal of the Lead independent Director, resulting from the assessment:

- implement a work process involving one or more executive sessions concerning the governance and succession of the Chairman of the Board and/or the Lead independent Director, depending on the scenario selected;
- continue to reduce the age and broaden the international scope of the Board as part of future renewals, particularly those of Committee Chairmen/Chairwomen, over a three-year period, based on the needs resulting from the analysis of the skills matrix by the Nomination and Remuneration Committee and the Board, particularly by promoting the following research areas: one or several serving executive corporate officers or with such experience within other major groups, a serving Chief Financial Officer, a Director from the construction value chain and/or a Director with climate change skills; and
- regularly address financial, digital and commercial matters in the Board's work.

Director integration pathway

The Board of Directors meets once a year at a Group's plant or research center. On May 19, 2022, the Board of Directors visited the Chryso site in Sermaises (Loiret).

Each new Director may ask for training on the topic of his or her choice and visit the Group's plants, distribution facilities or research centers. In this context, new Directors may also visit various industrial or Building Distribution sites, and any Director may, at his or her request, meet with members of the Executive Committee (see section 1.5.2, p. 39).

Furthermore, in accordance with the law, Employee Directors benefit from supplementary training, the content of which is set every year by the Board of Directors, after consultation of such Employee Directors.

The Director representing employee shareholders also received such training.

5.1.3 THE GROUP'S SENIOR MANAGEMENT

Separation of functions since July 1, 2021: Chairman of the Board of Directors and Chief Executive Officer

Since July 1, 2021, the Chief Executive Officer has been responsible for the General Management of Company de Saint-Gobain. The operational organization of the Saint-Gobain Group's Management is provided by an Executive Committee chaired by the Chief Executive Officer (see section 1.5.2, p. 39).

Chief Executive Officer

Since the separation of the functions of Chief Executive Officer of Compagnie de Saint-Gobain from the Chairman of the Board of Directors on July 1, 2021, the position of Chief Executive Officer has been assumed by Mr. Benoit Bazin (see section 5.1.2, p. 171). Mr. Benoit Bazin has also been a Director of the Company since June 3, 2021.

The Chief Executive Officer is vested with the broadest authority to act under all circumstances on behalf of Compagnie de Saint-Gobain within the scope of its corporate purpose and subject to the limits set by law, the bylaws and/or internal rules of the Board of Directors (see section 5.1.2 p. 171 and section 9.1.1 p. 368). On the balance of powers within the Board of Directors to ensure proper compliance with the rules of governance, see chapter 5, section 5.1.2, p. 171.

Executive Committee

As part of the transformation of the Saint-Gobain Group announced on November 26, 2018, the General Management Committee was replaced as of January 1, 2019 by an Executive Committee. This Committee, whose composition reflects the new organizational structure of the Saint-Gobain Group, comprises 16 members as of January 1, 2023 (see section 1.5.2, p. 39). In addition to the Chief Executive Officer, the senior operational and functional managers of the Saint-Gobain Group are members (see section 1.5.2, p. 39).

The mission of the Executive Committee is to review operational management, coordinate project management and implement Saint-Gobain Group strategy. It meets every month.

5.2 COMPENSATION OF THE MANAGEMENT AND GOVERNING BODIES

This section, prepared with the assistance of the Board's Nomination and Remuneration Committee, describes the compensation components for the Directors, the executive corporate officers and members of Group General Management, and sets out the long-term compensation plans in place within the Group.

5.2.1 DIRECTORS' COMPENSATION

Compensation policy for Directors (*ex ante Say-on-Pay*)

The General Shareholders' Meeting of 5 June 2014 set the total annual amount to be paid to the Board of Directors for the compensation of its members at EUR 1.1 million.

In view of the anticipated recruitment to the Board, the Board reviewed the compensation policy for Directors, on the recommendation of the Nomination and Remuneration Committee.

The Board decided that it was desirable to modify the compensation policy for Directors in order to promote the international diversity of the Board and to continue to attract the best talent.

In this context, the Board of Directors, on the recommendation of the Nomination and Remuneration Committee, decided to:

i. propose to the General Meeting of 8 June 2023 an increase in the overall annual compensation package for Directors (currently EUR 1.1 million) to EUR 1.3 million, in order to take into account the payment of travel allowances for Directors residing abroad, as mentioned in point (ii) below and, depending on the number of meetings of the Board of Directors and/or of its Committees and of the composition of its Committees, place the Directors' compensation to the level of the average of the CAC 40 companies (to date the Directors' compensation is slightly lower than such average);

ii. subject to the approval by the General Meeting of 8 June 2023 of the increase in the overall annual remuneration package for Directors referred to in (i) above, revise the rules for the allocation of this package to provide for the payment of an additional lump sum per trip for Directors coming from abroad, in case of attendance in face to face meeting.

Subject to the approval by the General Meeting of 8 June 2023 of the increase in the total annual compensation package for Directors, the new distribution rules, which would be applicable as from 1 January 2023, would be as follows:

- neither the Chairman of the Board of Directors nor the Chief Executive Officer receive any compensation for his office as Director (unchanged);
- the Lead Independent Director did not wish to receive any remuneration for this function (unchanged);
- the other members of the Board of Directors each receive a fixed amount of €24,750 per year plus €3,300 for each Board meeting attended during the year (unchanged);
- the Chairpersons and members of the Committees (currently: the Audit and Risk Committee, the Nomination and Remuneration Committee, and the Corporate Social Responsibility Committee) (excluding executive corporate officers) each receive a fixed amount of €5,500 and €2,750 per year, respectively, plus a variable portion of €2,200 for each Committee meeting attended (unchanged);
- an additional sum per Board meeting and per Committee meeting is paid to take into account the travel expenses of directors residing outside France (EUR 2,500 per actual trip to a Board or Committee meeting for a Director residing in Europe (outside France); EUR 5,500 for a Director residing outside Europe). In the event that several Board or Committee meetings are held on the same day, this sum is paid only once (new);
- the amounts granted in respect of the fixed base amount are pro-rated when terms of office begin or end during the course of a fiscal year (unchanged);
- the compensation is paid in two half-yearly installments in arrears, with any balance available from the annual amount distributed at the beginning of the next year based on the variable portions allocated to each Director (excluding additional amounts to take into account the business trip of Directors residing outside France) for each Director's or Committee member's attendance rate at the prior year's Board or Committee meetings (unchanged).

The variable portion represents the bulk of their compensation if Directors consistently attend both Board and Committee meetings.

Compensation components paid to Directors during the 2022 fiscal year or granted in respect of the same fiscal year, subject to the approval of the General Shareholders' Meeting of June 8, 2023 (*ex post Say-on-Pay*)

In accordance with Articles L.22-10-34 I and L.22-10-9 I of the French Commercial Code, the fixed, variable and exceptional components of the total compensation and benefits of any kind paid during the year or granted for the same fiscal year to corporate officers are submitted every year for the approval of the Ordinary Shareholders' Meeting. This vote is binding (as opposed to an advisory vote).

The table below shows the individual compensation received by the members of the Board of Directors (fixed and variable components combined) for their terms of office as Directors in respect of fiscal years 2021 and 2022 pursuant to the compensation policy outlined in this section 5.2.1.

TABLE 3 – SUMMARY OF EACH NON-EXECUTIVE CORPORATE OFFICER'S COMPENSATION (AMF NOMENCLATURE)

	Gross amounts received (in EUR)	
Non-Executive corporate officers	for 2022 fiscal year	for 2021 fiscal year
Jean-François Cirelli	94,414	79,934
Lydie Cortes [(a)]	92,817	88,538
Sibylle Daunis-Opfermann	75,137	73,878
Thierry Delaporte [(b)]	36,837	-
Lina Ghotmeh [(c)]	82,340	6,907
Iêda Gomes Yell	92,817	85,560
Anne-Marie Idrac [(d)]	53 023	105,948
Pamela Knapp	95,566	90,127
Agnès Lemarchand	109,514	95,526
Dominique Leroy	89,084	84,072
Denis Ranque [(e)]	-	81,359
Gilles Schnepp	92,817	88,538
Jean-Dominique Senard	92,817	85,560
Philippe Thibaudet [(a)]	92,817	88,538
Philippe Varin [(f)]	-	45,515
TOTAL	**1,100,000**	**1,100,000**

(a) *It should be noted that, at the time they took up their positions and for the entire duration of their terms as Employee Directors, Mrs. Lydie Cortes and Mr. Philippe Thibaudet each decided to donate to the trade unions with which they are each affiliated, i.e. the Confédération Française Démocratique du Travail (for Mrs. Lydie Cortes) and the Confédération Générale du Travail (for Mr. Philippe Thibaudet), respectively, all compensation (net of social charges) paid by the Company for their term of office as Director. The net amount of this compensation is consequently paid directly by Compagnie de Saint-Gobain to these trade unions.*

(b) *Director since June 2, 2022.*

(c) *Director since November 25, 2021, date of her co-option by the Board of Directors to replace Mr. Denis Ranque, who resigned.*

(d) *Director until June 2, 2022.*

(e) *Director until November 25, 2021.*

(f) *Director until June 3, 2021.*

With the exception of the Employee Directors and the Director representing employee shareholders, who received compensation for their salaried positions, the non-Executive Directors received no other compensation from the Company or Group entity for their offices in respect of the 2021 and 2022 fiscal years.

5.2.2 COMPENSATION OF EXECUTIVE CORPORATE OFFICERS

General principles of the compensation policy for executive corporate officers

The Board of Directors and the Nomination and Remuneration Committee are committed to ensuring that the compensation of the executive corporate officers complies at all times with the recommendations of the AFEP-MEDEF Corporate Governance Code for French listed companies and in particular meets transparency and performance measurement requirements. They also ensure that it evolves taking into account the Group's performance and market practices.

The compensation package of the executive corporate officers is determined by taking into account all pay components (fixed compensation, annual variable compensation, long-term incentives, severance indemnity and pension benefits), with a view to achieving a balanced mix of these components.

When setting the various components of the compensation of the executive corporate officers, the Board of Directors also takes into consideration the benchmarks of CAC 40 industrial companies comparable to Saint-Gobain in terms of revenue, workforce and market capitalization.

The Board of Directors also seeks to ensure that the granting of long-term compensation instruments (stock options, performance shares and performance units, as the case may be) to the executive corporate officers in a given fiscal year does not represent a disproportionate share of their maximum total compensation in respect of that fiscal year and has conditioned these grants to demanding ceiling and holding rules.

Compensation and benefits allocated to the executive corporate officers

Summary of the compensation and benefits paid or granted to the executive corporate officers for the 2022 fiscal year

In accordance with the principles set out above, the Board of Directors, at its meeting of February 24, 2022, approved, on the proposal of the Nomination and Remuneration Committee, the compensation policies for the Chairman of the Board of Directors and the Chief Executive Officer for the fiscal year 2022.

These policies were approved by the General Shareholders' Meeting of June 2, 2022 (twelfth and thirteenth resolutions).

The following tables present a summary of the compensation, performance shares and stock options granted to Mr. Pierre-André de Chalendar, Chairman of the Board of Directors from July 1, 2021, and to Mr. Benoit Bazin, Chief Executive Officer from July 1, 2021, for the fiscal years ended December 31, 2021 and 2022. No stock options or performance units were granted to them in 2021 and 2022.

TABLE 1 – SUMMARY OF COMPENSATION, STOCK OPTIONS AND PERFORMANCE SHARES PAID OR GRANTED TO THE EXECUTIVE CORPORATE OFFICERS (AMF NOMENCLATURE)

(in EUR before social charges and income tax)	2022 fiscal year	2021 fiscal year
Since July 1, 2021		
Pierre-André de Chalendar, Chairman of the Board of Directors		
Compensation paid or granted in respect of the fiscal year *(see Table 2 for details)* [(a)]	450,000	225,000 [(b)]
Value of multi-year variable compensation allocated during the year	N/A	N/A
Value of stock options granted during the year *(see Table 4 for details)*	N/A	N/A
Value of performance shares granted during the year *(see Table 6 for details)*	N/A	N/A
TOTAL	**450,000**	**225,000**
Benoit Bazin, Chief Executive Officer		
Compensation paid or granted in respect of the fiscal year *(see Table 2 for details)*	2,700,000	1,344,705 [(c)]
Value of multi-year variable compensation allocated during the year	0	0
Value of stock options granted during the year *(see Table 4 for details)*	0	0
Value of performance shares granted during the year *(see Table 6 for details)*	1,919,924	2,290,656
TOTAL	**4,619,924**	**3,635,361** [(d)]

(a) *It is specified that Mr. Pierre-André de Chalendar decided to retire and benefit from his rights under the supplementary defined-benefit pension plan "SGPM" of which he was a beneficiary as Chairman and Chief Executive Officer, as of July 1, 2021. Since that date he has received a supplementary retirement pension, the gross annual amount of which was approximately €394,300 for the 2022 fiscal year.*

(b) *For the six-month period from 1 July to 31 December 2021 (compensation awarded or paid to Mr. Pierre-André de Chalendar, Chairman of the Board of Directors).*

(c) *For the six-month period from 1 July to 31 December 2021 (compensation awarded or paid to Mr. Benoit Bazin, Chief Executive Officer).*

(d) *On an annualized basis, Mr. Benoit Bazin's remuneration would have amounted to 4,980,066 euros for the fiscal year 2021.*

Compensation and benefits paid or granted to executive corporate officers for the 2022 fiscal year

The tables below show the breakdown of fixed compensation, variable compensation and other benefits granted to Mr. Pierre-André de Chalendar, Chairman of the Board of Directors from July 1, 2021, and to Mr. Benoit Bazin, Chief Executive Officer from July 1, 2021, for the fiscal years ended December 31, 2021 and 2022.

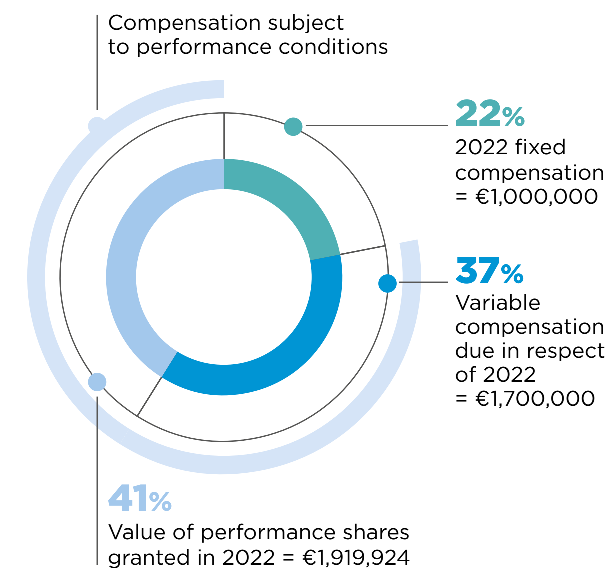
TABLE 2 – SUMMARY OF THE COMPENSATION PAID OR GRANTED [(a)] TO THE EXECUTIVE CORPORATE OFFICERS (AMF NOMENCLATURE)

	2022		2021	
(in EUR before social charges and income tax)	Amounts awarded [(b)]	Amounts paid [(c)]	Amounts awarded [(b)]	Amounts paid [(c)]
From July, 1 2021				
Pierre-André de Chalendar, Chairman of the Board of Directors				
Fixed compensation	450,000	450,000	225,000*	225,000*
Annual variable compensation	N/A	N/A [(e)]	N/A	N/A
Multi-year variable compensation	N/A	N/A	N/A	N/A
Exceptional compensation	N/A	N/A	N/A	N/A
Compensation in respect of the Director's term of office [(d)]	0	0	0	0
Benefits in kind: company car	3,300	3,300	1,650*	1,650*
TOTAL	**453,300**	**453,300**	**226,650***	**226,650***
Benoit Bazin, Chief Executive Officer				
Fixed compensation	1,000,000	1,000,000	500,000*	500,000*
Annual variable compensation	1,700,000	843,625 [(f)]*	843,625*	N/A
Multi-year variable compensation	0	0	0	0
Exceptional compensation	0	0	0	0
Compensation in respect of the Director's term of office [(d)]	0	0	0	0
Benefits in kind: company car	2,158	2,158	1,080*	1,080*
TOTAL	**2,702,158**	**1,845,783**	**1,344,705***	**501,080***

* *For the six-month period from 1 July to 31 December 2021 (compensation awarded or paid to Mr. Pierre-André de Chalendar, Chairman of the Board of Directors, or Mr. Benoit Bazin, Chief Executive Officer).*
(a) *On a gross basis before taxes.*
(b) *Compensation allocated during the year, regardless of payment date.*
(c) *Compensation paid during the year.*
(d) *The executive corporate officers of Compagnie de Saint-Gobain do not receive any compensation for their duties as Directors in companies outside the Group in which the Group has equity interests.*
(e) *During 2022 fiscal year, 1,012,350 euros were also paid to Mr. Pierre-André de Chalendar, as part of his annual variable compensation for the period from January to June 2021, as Chairman and Chief Executive Officer. These compensation elements were approved by the General Meeting of 2 June 2022 in the context of the ex-post say-on-pay (7th resolution).*
(f) *During 2022 fiscal year, 558,281 euros were also paid to Mr Benoit Bazin, as part of his annual variable compensation for the period from January to June 2021 as Deputy Chief Executive Officer. These compensation elements were approved by the General Meeting of 2 June 2021 in the context of the ex-post Say-on-pay (8th resolution).*

The graph below shows the breakdown of the various components of the compensation components of Mr. Benoit Bazin, paid during the 2022 fiscal year or awarded in respect of the same fiscal year, as Chief Executive Officer.

Benoit Bazin, Chief Executive Officer



In accordance with the compensation policy for the Chairman of the Board of Directors and the Chief Executive Officer approved by the General Shareholders' Meeting of June 2, 2022 (12th and 13th resolutions), the various compensation components paid during the 2022 fiscal year or awarded in respect of the same fiscal year to Mr. Pierre-André de Chalendar and Mr. Benoit Bazin are determined as follows:

Fixed compensation

The fixed portion of the compensation of executive corporate officers reflects their experience and responsibilities, and is comparable to that of equivalent positions in large companies that are similar in terms of revenues, workforce and market capitalization.

Fixed compensation of Mr. Pierre-André de Chalendar, Chairman of the Board of Directors

Pursuant to the compensation policy approved by the General Shareholders' Meeting of June 2, 2022, the compensation of Mr. Pierre-André de Chalendar was set at €450,000 gross per annum for the entire duration of his term of office as Chairman of the Board of Directors, to the exclusion of any other compensation in respect of his term of office [(2)]. The Nomination and Remuneration Committee had noted in 2021, with the assistance of an external firm, that this level was below the median of compensation paid to non-executive Chairmen of CAC 40 companies who previously held the position of Chairman and Chief Executive Officer (excluding financial companies).

Fixed compensation of Mr. Benoit Bazin, Chief Executive Officer

In accordance with the compensation policy approved by the General Shareholders' Meeting of June 2, 2022, Mr. Benoit Bazin's fixed compensation was set at €1,000,000 for 2022, with no increase since 2021, when he took office as Chief Executive Officer, and even though the Nomination and Remuneration Committee found in 2022, with the help of an external firm, that this level is lower than the median of CAC 40 industrial companies comparable to Saint-Gobain in terms of size: revenue, workforce or market capitalization.

Annual variable compensation

This component of compensation rewards the contribution of the Chief Executive Officer to the Group's results over the past fiscal year. It is expressed as a percentage of the annual fixed compensation.

At its meeting of February 24, 2022, on the proposal of the Nomination and Remuneration Committee, the Board decided, for fiscal year 2022, to set the cap for the annual variable portion of the compensation of Mr. Benoit Bazin, as Chief Executive Officer, at 170% of the fixed portion of his compensation.

Furthermore, at its meeting of February 24, 2022, the Board determined, on the proposal of the Nomination and Remuneration Committee, the components and objectives of the variable compensation of Mr. Benoit Bazin as Chief Executive Officer for 2022 (structure unchanged since 2019):

- a quantitative portion of 2/3, based on the following four objectives, adapted to the Group's strategy by reverting to a weighting of 25% of each of the four quantifiable objectives, depending on the policy prevailing before the start of the Covid-19 crisis:
  - the "FCF" (Free Cash Flow), which is an indicator published and monitored by investors and which replaces the "OFCF" objective (Operating Free Cash Flow), which is an internal indicator,
  - ROCE (Return on Capital Employed),
  - the Group's operating income, and
  - Group recurring net income per share;

The objectives for the above quantifiable criteria are not disclosed for confidentiality reasons.

Given the volatility of the environment in which the Group operates, which makes it difficult to forecast each indicator, the Board of Directors, after consulting the Nomination and Remuneration Committee, has reserved the right to apply an "outperformance" mechanism that would make it possible to partially compensate for the non-achievement of quantifiable objectives on certain criteria by an exceptional outperformance on others. In the event of outperformance on one or more of the four criteria beyond the maximum, it is possible to reach up to 20% of the bonus share relating to the outperforming criterion/criteria, in the event of achievement above the maximum and up to 120% of the maximum, with linearity between 0 and 120% (which leads, for example, to 10% of the bonus share relating to a criterion in the event of achievement of up to 110% of the maximum), it being specified that the sum of the four components may not exceed 113% [(3)] of the fixed portion. Thus, in the extreme case of outperformance of more than 20% of the maximum on three criteria and performance equal to zero on the fourth, the quantifiable portion of the annual variable will be equal to 102% of the fixed portion (which responds to the concern that the maximum of 113% of the fixed portion cannot be reached when one criterion is at zero). In 2022, this mechanism was not applied.

- a qualitative portion of 1/3, based on the following three objectives:
  - Objective 1: deployment of the Grow & Impact strategic plan in its 6 action priorities (1 – Position ourselves in high-growth markets, 2 – Be solutions-oriented, combining performance and sustainability, 3 – Drive growth through customer innovation and the power of data, 4 – Embed Corporate Social Responsibility in our decisions and actions, 5 – Strengthen our "TEC" culture (trust, empowerment and collaboration), 6 – Have the best teams in a diverse and inclusive work environment);
  - Objective 2: successful integration of Chryso and GCP and continued optimization of the Group's scope (acquisitions and disposals);
  - Objective 3: implementation of the corporate social responsibility policy (including safety, social, environmental and compliance).

(2) *It is specified that Mr. Pierre-André de Chalendar decided to retire and benefit from his pension rights under the supplementary defined-benefit supplementary pension plan "SGPM" of which he was a beneficiary as Chairman and Chief Executive Officer, as of July 1, 2021. Since that date he has received a supplementary retirement pension, the gross annual amount of which was approximately €394,300 for the 2022 fiscal year.*

(3) *The quantifiable part of the variable represents 2/3 of the variable part, which can reach a maximum of 170% of the fixed part, so that with its maximum amount is 113.33% of the fixed amount.*

The quantifiable and qualitative variable compensation due for the 2022 fiscal year to the Chief Executive Officer was determined by the Board of Directors at its meeting of February 23, 2023, on the proposal of the Nomination and Remuneration Committee, as follows:

		Weighting	Possible variation under each objective *(in EUR)* [(a)]	Amount at target budget (target compensation) *(in EUR)*	Percentage achieved compared to target compensation	Percentage achieved	Achievement *(in EUR)*
Benoit Bazin, Chief executive officer						—	
Quantifiable objectives (2/3) of which:	FCF	25%	0 à 283,333	198,333	143%	—	283,333
	Group operating income	25%	0 à 283,333	198,333	143%	—	283,333
	ROCE	25%	0 à 283,333	198,333	143%	—	283,333
	Group recurring net income per share	25%	0 à 283,333	198,333	143%	—	283,333
	Quantifiable total	**100%**	**0 à 1,133,333**	**793,332**	**143%**	**—**	**1,133,333**
Qualitative objectives (see above for a detailed description of each objective) (1/3) of which:	Objective 1	33.3%	0 à 188,889	N/A	N/A	100%	188,889
	Objective 2	33.3%	0 à 188,889	N/A	N/A	100%	188,889
	Objective 3	33.3%	0 à 188,889	N/A	N/A	100%	188,889
	Qualitative (global)	**100%**	**0 à 566,667**	**N/A**	**N/A**	**100%**	**566,667**
TOTAL VARIABLE SHARE		**100%**	**0 à 1,700,000**	**N/A**	**N/A**	**100%**	**1,700,000**

(a) *For each quantifiable objective, the corresponding portion of variable compensation becomes payable if 82% to 88% of the target of the considered objective is achieved (on budget basis), depending on the objective concerned, and it reaches its maximum if the objective reaches between 104% and 107%, as the case may be, of the target of the considered objective.*

Qualitative variable compensation of the Chief Executive Officer

The Board of Directors, at its meeting of February 23, 2023, on the recommendation of the Nomination and Remuneration Committee, set at 100% the overall level of achievement of the three qualitative objectives used to determine the variable compensation for 2022 of Mr. Benoit Bazin, Chief Executive Officer, as outlined above.

In particular, it took the following main achievements into consideration:

- concerning deployment of the Grow & Impact strategic plan in its six action priorities (1 – Position ourselves in high-growth markets, 2 – Be solutions-oriented, combining performance and sustainability, 3 – Drive growth through customer innovation and the power of data, 4 – Embed Corporate Social Responsibility in our decisions and actions, 5 – Strengthen our “TEC” (Trust, Empowerment and Collaboration) culture, 6 – Have the best teams in a diverse and inclusive work environment) the Group's actions are described in section 2.3, p. 57. The Board of Directors noted in particular:
  - the pursuit of the allocation of Group resources to high-growth markets as a priority (notably, geographical rebalancing, acquisitions in the construction chemicals sector);
  - deployment of the “Solutions” approach in the main European countries (see section 2.3.2, p. 57);
  - the identification of major innovation priorities, the acceleration of innovation in net zero-carbon processes, the launch of the world's first commercial offering of low-carbon glass, and the development of digital and IT initiatives with the pursuit of the implementation of common platforms within the Group and the intensification of IT projects linked to the CO_2 roadmap;
  - the inclusion of the CSR roadmap in the budgets, the inclusion of CSR criteria in bonuses, the training of employees (in particular the deployment of the Climate Fresque and the Climate Academy), the creation and management of the COMEX CSR Committee;
  - the implementation of various TEC actions (creation of a 360° evaluation, specific training program “Grow your impact as a TEC leader”) (see section 2.3.6 B, p. 66); and
  - the continuing increase in the proportion of women in the organization (see section 2.3.6 A, p. 65) and the development of numerous local initiatives on inclusion.
- concerning successful integration of Chryso and GCP and continued optimization of the Group’s scope, especially:
  - numerous growth synergies between Chryso and Saint-Gobain; the completion of acquisitions by Chryso with the support of Saint-Gobain and the gradual integration of Chryso's development projects with those of Saint-Gobain (the strengthening of the partnership between Ecocem and Saint-Gobain, including Point.P, Weber, and Chryso);
  - the fast completion of the acquisition of GCP Applied Technologies in September 2022 and the very active integration (weekly follow-ups in 2022 and very good collaboration between the teams); and
  - the very active pursuit of optimization of the Group's profile, including (i) 20 signed or closed divestments for 3.8 billion in divested revenues, and (ii) 44 signed or closed acquisitions for 1.9 billion in acquired revenues, of which 55% in North America (including Kaycan in Canada), 23% in Asia, and 61% in construction chemicals, as detailed in section 2.3.7 B, p. 68.
- concerning implementation of the Corporate Social Responsibility policy:
  - in terms of safety, the frequency rate of accidents with and without stoppage (TF2) fell by 19% between 2021 and 2022 and has been almost halved in the last five years. Once again this year, efforts to raise awareness, regularly and in response to accidents have been implemented;

- in terms of diversity: increase in the gender mix in management bodies, both locally and at Group level. Continued increase in the proportion of women managers: 27.4% in 2022, in line with the objective of 30% of women senior managers by 2025;
- in terms of team commitment and satisfaction: the results of the me@Saint-Gobain survey are excellent, with an increase in all indicators compared to 2021 (see section 3.2.3.E p. 97);
- on the environment: deployment of the Group's CO_2 emissions roadmap ("scopes" 1 and 2), with a 27% reduction in emissions since 2017 and a 5% reduction since 2021, in line with the Group's 2030 roadmap. Saint-Gobain has also signed renewable electricity purchase contracts in many countries. In addition, the indicators for non-recycled waste and water withdrawal are improving. Lastly, the Group's agency ratings have improved or been maintained;
- regarding compliance: a very high percentage of training is followed and the anti-corruption system is adapted to the new recommendations of the French Anti-Corruption Agency.

In total, for the fiscal year 2022:

- pursuant to the compensation policy approved by the General Shareholders' Meeting of June 2, 2022, the compensation of Mr. Pierre-André de Chalendar was set at €450,000 gross per annum for the entire duration of his term of office as Chairman of the Board of Directors. The Nomination and Remuneration Committee had noted in 2021, with the assistance of an external firm, that this level was below the median of compensation paid to non-executive Chairmen of CAC 40 companies who previously held the position of Chairman and Chief Executive Officer (excluding financial companies);
- Mr. Benoit Bazin's total compensation (fixed and variable) as Chief Executive Officer amounted to €2,700,000. This compensation is an increase of 0.5% compared to that of Mr. Benoit Bazin in 2021 as Chief Executive Officer calculated on an annualized basis.

Long-term compensation policy

Grant cap in relation to the total compensation of the Chief Executive Officer

In addition to the restrictions set out below, the Board of Directors resolved, in accordance with the AFEP-MEDEF Code, that the long-term compensation instruments that would be allocated in 2022 to Mr. Benoit Bazin could not represent, at the time of their allocation, a valuation (according to IFRS standards) greater than 100% of the Chief Executive Officer's maximum gross total compensation for the 2022 fiscal year (fixed plus maximum annual variable for the 2022 fiscal year or a value of €2,700,000).

In 2022, the performance shares allocated to Mr. Benoit Bazin amounted to a total value (according to IFRS), at the time of their grant, of €1,919,924, corresponding to 71.1% of his maximum gross total compensation for the 2022 fiscal year.
No stock option or performance unit plan was implemented in 2022.

Grant cap to the Chief Executive Officer in relation to the overall grant

The Board of Directors decided, during its meeting of February 24, 2022, as in previous years, that the Chief Executive Officer could not receive more than 10% of the overall grants of performance shares under the long-term compensation plan to be set up in 2022.

Hedging rules

The Chief Executive Officer formally committed not to hedge his risk either on stock options or on shares resulting from the exercise of stock options, on performance shares or on performance units he has been or will be granted during his term of office as executive corporate officer, until the cessation of his duties. To the Company's knowledge, the executive corporate officer has not hedged his risk.

Closed periods

In their capacity as executive corporate officers and by virtue of the applicable regulations as reminded in the Board's internal rules (see section 9.1.1.B, p. 370), Mr. Pierre-André de Chalendar and Mr. Benoit Bazin must refrain from carrying out any transactions on Saint-Gobain securities for 30 days prior to Board meetings during which the annual consolidated financial statements and the half-year consolidated financial statements are examined, for 15 days prior to the release of quarterly consolidated sales and on the day following the release of the full and half-year results. Outside of these periods, they are also required, as are the other Directors, to abide by the provisions on the prevention of insider trading.

Stock options

The tables below present the stock options exercised by the executive corporate officers during the 2022 fiscal year.

No stock option plan was implemented in 2022.

TABLE 4 – STOCK OPTIONS GRANTED IN 2022 TO THE EXECUTIVE CORPORATE OFFICERS (AMF NOMENCLATURE)

Name of the Executive corporate officer	Plan date	Type of options (subscription or purchase)	Value (based on method used to prepare the consolidated financial statements)	Number of options granted during the fiscal year	Exercise price	Exercise period
Pierre-André de Chalendar, Chairman of the Board of Directors	N/A	N/A	N/A	N/A	N/A	N/A
Benoit Bazin, Chief Executive Officer	N/A	N/A	N/A	N/A	N/A	N/A

TABLE 5 – STOCK OPTIONS GRANTED IN RESPECT OF THE TERM OF OFFICE AND EXERCISED IN 2022 BY THE EXECUTIVE CORPORATE OFFICERS (AMF NOMENCLATURE)

Name of the Executive corporate officer	Plan date	Type of options (subscription or purchase)	Number of options granted during the fiscal year	Exercise price
Pierre-André de Chalendar [(a)]	N/A	N/A	N/A	N/A
Benoit Bazin	N/A	N/A	N/A	N/A

[(a)] *Options granted to Mr. Pierre-André de Chalendar as Chairman and Chief Executive Officer.*

Performance shares

The following tables show the performance shares granted or delivered to the executive corporate officers during the 2022 fiscal year.

TABLE 6 – PERFORMANCE SHARES GRANTED IN 2022 TO THE EXECUTIVE CORPORATE OFFICERS (AMF NOMENCLATURE)

Name of the Executive corporate officer	Plan date	Number of options granted during the fiscal year	Value of shares (based on method used to prepare the consolidated financial statements)	Vesting date	Availability date	Performance conditions
Pierre-André de Chalendar, Chairman of the Board of Directors	11/24/2022	0	0	11/24/2026	11/27/2026	See options plans details*
Benoit Bazin, Chief Executive Officer	11/24/2022	75,000	1 919 924	11/24/2026	11/27/2026	See options plans details*

* *See section 5.2.4, p. 209.*

Grant for Benoit Bazin, Chief Executive Officer in fiscal year 2022

At the Board meeting of November 24, 2022, on the proposal of the Nomination and Remuneration Committee, Mr. Benoit Bazin was granted 75,000 performance shares, representing approximately 0.014% of the share capital, less than the sub-cap set by the General Shareholders' Meeting of June 2, 2022 and less than the 10% cap on the overall grant for performance shares and performance units decided by the Board.

The features of the performance shares, specifically the service and performance conditions to which the allocation is subject and which apply to the Chief Executive Officer, are explained in this section 5.2.4, p. 209.

TABLE 7 – SHARES GRANTED FREE OF CHARGE AND WHICH BECAME AVAILABLE IN 2022 FOR EACH EXECUTIVE CORPORATE OFFICER (AMF NOMENCLATURE)

Name of the Executive corporate officer	Plan date	Number of shares delivered during the year	Availability date
Pierre-André de Chalendar	11/22/2018	63,227	11/25/2022
Benoit Bazin [(a)]	N/A	N/A	N/A

[(a)] *Shares granted for a term of office as executive corporate officer.*

Retention rules

The Chief Executive Officer is required to retain 50% of the performance shares awarded in 2021 until the end of his duties. However, this holding obligation will cease to apply if and when the total number of Saint-Gobain shares that the Chief Executive Officer personally holds in registered form—at the date of delivery of the performance shares—represents the equivalent of three years of gross fixed compensation (based on the average opening prices quoted for Saint-Gobain shares in the 20 trading days preceding the delivery date of the performance shares and the amount of the gross fixed compensation applicable at that time).

Performance units

No performance unit plans were set up during fiscal year 2022 and there are no longer any performance unit plans being vested (see section 5.2.4, p. 209). No performance units therefore became exercisable during fiscal year 2022.

Employment contract, retirement benefits and termination benefits for executive corporate officers

For the Chairman of the Board of Directors

TABLE 11 – EMPLOYMENT CONTRACT, RETIREMENT BENEFITS AND TERMINATION BENEFITS FOR THE CHAIRMAN OF THE BOARD OF DIRECTORS (AMF NOMENCLATURE)

executive corporate officer	Employment contract		Supplementary pension arrangements		Indemnities or benefits due or likely to be due as a result of termination or a change of role		Indemnities in relation to a non-compete clause	
	Yes	No	Yes	No	Yes	No	Yes	No
Pierre-André de Chalendar, Chairman of the Board of Directors		X		X [(a)]		X		X

[(a)] *It is specified that Mr. Pierre-André de Chalendar decided to retire and benefit from his pension rights under the supplementary defined-benefit supplementary pension plan "SGPM" of which he was a beneficiary as Chairman and Chief Executive Officer, as of July 1, 2021. Since that date he has received a supplementary retirement pension, the gross annual amount of which was approximately €394,300 for the 2022 fiscal year.*

Mr. Pierre-André de Chalendar benefits from the commitments made by the Group to him, as described below.

Health and personal risk insurance

See the heading "Health and personal risk insurance" described hereunder.

For the Chief Executive Officer

TABLE 11 – EMPLOYMENT CONTRACT, RETIREMENT BENEFITS AND TERMINATION BENEFITS FOR THE CHIEF EXECUTIVE OFFICER (AMF NOMENCLATURE)

executive corporate officer	Employment contract		Supplementary pension arrangements		Indemnities or benefits due or likely to be due as a result of termination or a change of role		Indemnities in relation to a non-compete clause	
	Yes	No	Yes	No	Yes	No	Yes	No
Benoit Bazin, CEO		X [(a)]	X		X		X	

[(a)] *Mr. Benoit Bazin whose employment contract entered into when he joined the Saint-Gobain Group on September 1, 1999 had been suspended since January 1, 2019 and for the entire duration of his term of office as Chief Operating Officer, committed to renounce his employment contract as from July 1, 2021, the date on which he became Chief Executive Officer.*

Mr. Benoit Bazin benefits from the commitments made by the Group to him, as described below.

Severance indemnity of Chief Executive Officer

See the heading "Severance indemnity" described hereunder.

Non-compete indemnity

See the heading "Non-compete indemnity" described hereunder.

Supplementary pension arrangements

See the heading "Supplementary pension arrangements" described hereunder.

Health and personal risk insurance

See the heading "Health and personal risk insurance" described hereunder.

Compensation components paid to executive corporate officers during the 2022 fiscal year or granted in respect of the same fiscal year, subject to the approval of the General Shareholders' Meeting of June 8, 2023 (*ex post Say-on-Pay*)

Article L.22-10-34 II of the French Commercial Code requires that the fixed, variable and exceptional components of the total compensation and benefits of any kind, paid during the past fiscal year or allocated for the same fiscal year to executive corporate officers, be submitted to the Ordinary Shareholders' Meeting for approval each year. This vote is binding (as opposed to an advisory vote).

The compensation components paid in 2022 or granted in respect of that fiscal year to Mr. Pierre-André de Chalendar, Chairman of the Board of Directors, and to Mr. Benoit Bazin, Chief Executive Officer, were decided by the Board of Directors at its meetings of February 24, 2022, November 24, 2022 and February 23, 2023, on the proposal of the Nomination and Remuneration Committee, pursuant to the compensation policies for the Chairman of the Board of Directors and Chief Executive Officer, approved by the General Shareholders' Meeting of June 2, 2022 (twelfth and thirteenth resolutions) and in accordance with the principles outlined in paragraph Compensation and benefits paid or granted to executive corporate officers for the 2022 fiscal year, in section 5.2.2 p. 185.

Compensation components paid to Mr. Pierre-André de Chalendar, Chairman of the Board of Directors, during the 2022 fiscal year or granted in respect of the same fiscal year (*ex post Say-on-Pay*)

The following table shows the compensation components paid in the 2022 fiscal year or granted in respect of that fiscal year to Mr. Pierre-André de Chalendar, Chairman of the Board of Directors, subject to shareholders' approval at the General Shareholders' Meeting of June 8, 2023, in accordance with Article L.22-10-34 II of the French Commercial Code.

Compensation components paid to Mr. Pierre-André de Chalendar, Chairman of the Board of Directors, during the 2022 fiscal year or granted in respect of the same fiscal year (Article L.22-10-34 II of the French Commercial Code) (*ex post Say-on-Pay*)

Compensation components submitted to vote	Amounts paid or granted or book value subject to vote *(in euros)*	Description
Fixed compensation	**Amount paid: €450,000** (Board of Directors meeting of February 24, 2022)	In accordance with the compensation policy approved by the General Shareholders' Meeting of June 2, 2022 (12th resolution).
Annual variable compensation	**None**	Mr. Pierre-André de Chalendar has not been granted any annual variable compensation.
Deferred variable compensation	**None**	Mr. Pierre-André de Chalendar has not been granted any deferred variable compensation.
Multi-year variable compensation	**None**	Mr. Pierre-André de Chalendar has not been granted any multi-year variable compensation.
Exceptional compensation	**None**	Mr. Pierre-André de Chalendar has not been granted any exceptional compensation.
Long-term compensation	**None**	No long-term compensation was awarded to Mr. Pierre-André de Chalendar in 2022.
Compensation in respect of the Director's term of office	**None**	Mr. Pierre-André de Chalendar does not receive any compensation for his term of office as Director of Compagnie de Saint-Gobain.
In-kind benefits	**€3,300 (book value)**	Mr. Pierre-André de Chalendar has use of a company car.
Severance indemnity	**None**	The Board of Directors has not granted any severance indemnity to Mr. Pierre-André de Chalendar.
Non-compete indemnity	**None**	The Board of Directors has not granted any non-compete indemnity to Mr. Pierre-André de Chalendar.

Compensation components paid to Mr. Benoit Bazin, Chief Executive Officer, during the 2022 fiscal year or granted in respect of the same fiscal year (*ex post Say-on-Pay*)

The following table shows the compensation components paid during the 2022 fiscal year or granted in respect of that fiscal year to Mr. Benoit Bazin, Chief Executive Officer, subject approval at the General Shareholders' Meeting of June 8, 2023, in accordance with Article L.22-10-34 II of the French Commercial Code.

Compensation components paid to Mr. Benoit Bazin, Chief Executive Officer, during the 2022 fiscal year or granted in respect of the same fiscal year (Article L.22-10-34 II of the French Commercial Code) (*ex post Say-on-Pay*)

Compensation components submitted to vote	Amounts paid or granted or book value subject to vote *(in euros)*	Description
Fixed compensation	**Amount paid: €1,000,000** (Board of Directors meeting of February 24, 2022)	In accordance with the compensation policy approved by the General Shareholders' Meeting of June 2, 2022 (13th resolution).
Annual variable compensation	**Amount due: €1,700,000** (Board of Directors meeting of February 23, 2023)	On February 24, 2022, on the proposal of the Nomination and Remuneration Committee, the Board decided to set the cap for the annual variable portion of the compensation of the Chief Executive Officer at 170% of the fixed portion of his compensation. Based on the recommendations of the Nomination and Remuneration Committee, the Board of Directors, at its February 23, 2023 meeting, determined Mr. Benoit Bazin's variable compensation as Chief Executive Officer as follows, taking into account the extent to which the objectives outlined below have been attained: • the portion of the variable compensation based on the fulfillment of the four quantifiable objectives (return on capital employed (ROCE), Group operating income, Group recurring earnings per share, Free Cash Flow) amounted to € 1,133,333, which corresponds to a compensation achievement rate against the Target of 143% (see section 5.2.2); • the amount of the variable portion in respect of the three qualitative objectives (deployment of the Grow & Impact strategic plan in its 6 action priorities, successful integration of Chryso and GCP and continued optimization of the Group's scope (acquisitions and disposals), and implementation of the Corporate Social Responsibility policy (including safety, social, environment and compliance)) amounted to € 566,667 corresponding to a percentage of achievement of 100% (see section 5.2.2). The variable portion of the compensation of Mr. Benoit Bazin as Chief Executive Officer totaled € 1,700,000 for 2022, which corresponds to an achievement rate of 100%. In all, Mr. Benoit Bazin's total compensation for fiscal year 2022 (fixed and variable) as Chief Executive Officer amounted to € 2,700,000. *Pursuant to the law, payment of the annual variable compensation is subject to the approval of the Ordinary Shareholders' Meeting of June 8, 2023.*
Deferred variable compensation	**None**	Mr. Benoit Bazin has not been granted any deferred variable compensation.
Multi-year variable compensation	**None**	Mr. Benoit Bazin has not been granted any multi-year variable compensation.
Exceptional compensation	**None**	Mr. Benoit Bazin has not been granted any exceptional compensation.

Compensation components paid to Mr. Benoit Bazin, Chief Executive Officer, during the 2022 fiscal year or granted in respect of the same fiscal year (Article L.22-10-34 II of the French Commercial Code) (*ex post Say-on-Pay*)

Compensation components submitted to vote	Amounts paid or granted or book value subject to vote *(in euros)*	Description
Performance shares	**Amount due: €1,919,924 (value based on the method used to prepare the consolidated financial statements)**	On the recommendation of the Nomination and Remuneration Committee, the Board of Directors' meeting of November 24, 2022 decided to grant Mr. Benoit Bazin 75,000 performance shares (as a reminder, 64,000 performance shares had been awarded in 2021 to Mr. Benoit Bazin as Chief Executive Officer). In 2021, the level of the share price and the application to the grant of the cap of 85% of the Chief Executive Officer's maximum gross total compensation for 2021 led to a grant which was limited to 64,000 performance shares (as a reminder, 57,500 performance shares had been granted in 2020 to Mr. Benoit Bazin as Chief Operating Officer so that, at the time of his change of role, the grant of Mr. Benoit Bazin had increased by 11.1% in terms of the number of shares, although the Nomination and Remuneration Committee would have liked to be able to recommend a higher increase to reflect this change of role and the quality of Mr. Benoit Bazin's appointment). In addition, in 2022, the Nomination and Remuneration Committee found, with the help of a benchmark created by an external firm, that Mr. Benoit Bazin's total compensation was lower than the median compensation of CEOs of CAC 40 industrial companies comparable to Saint-Gobain in terms of revenue, workforce and market capitalization. He also noted the continuation of Mr. Benoit Bazin's excellent performance since taking up his position as Chief Executive Officer. These factors led to an increase in the number of performance shares awarded to Benoit Bazin in 2022 to 75,000, i.e. an increase of 17.2% in terms of number of shares and a decrease of 16.2% in terms of value compared to 2021). This allocation represents a total value (in accordance with IFRS) at the time it was granted of €1,919,924, which is below the 100% [1] cap of his overall maximum gross compensation as Chief Executive Officer for the year 2022 (fixed plus maximum variable compensation for the 2022 financial year), a cap set by the Board of Directors' decision of the Board of Directors on 24 February 2022. It corresponds to 71.1% of the compensation of the Chief Executive Officer for 2022, so that it does not represent a disproportionate share of it. This allocation represents less than the sub-cap set by the General Shareholders' Meeting of June 2, 2022 and is less than the cap of 10% of the overall allocation envelope of performance shares decided by the Board Refer to section 5.2.4 p. 209 for a description of the service and performance conditions applying to the vesting of performance shares. The performance targets set for each criterion are final. However, in accordance with the allocation plan rules, the Board of Directors will have the possibility, after consulting the Nomination and Remuneration Committee, to adjust them in the event of exceptional circumstances justifying this, in particular in the event of a change in the scope of consolidation or a change in accounting method, in order to neutralize, as far as possible, the consequences of these circumstances on the objectives set at the grant date. The performance conditions for performance shares allocated by the Group are demanding, as evidenced by the achievement rates for the latest three performance share plans for which the performance condition has been determined (94.4% for the 2018 plan, 75% for the 2017 plan, 57.1% for the 2016 plan). Percentage of share capital represented by the allocation of performance shares to the executive corporate officer: approximately 0,014%. Date of authorization by the General Shareholders' Meeting: June 2, 2022 (18th resolution). Date of the Board's grant decision: November 24, 2022.
Stock options	**None**	No stock options were granted to Mr. Benoit Bazin in 2022.
Performance units	**None**	No performance units were granted to Mr. Benoit Bazin in 2022.
Compensation in respect of the Director's term of office	**None**	Mr. Benoit Bazin does not receive any compensation in respect of the fiscal year for serving as a Director of Compagnie de Saint-Gobain.
In-kind benefits	**€2,158 (book value)**	Mr. Benoit Bazin has use of a company car.
Severance indemnity	**None**	See the heading "Severance indemnity" in paragraph compensation policies for executive corporate officers subject to the approval of the General Shareholders' Meeting of June 8, 2023 (ex ante Say-on-Pay), section 5.2.2, p. 185 below.

(1) *As a reminder, in 2022, the cap applicable to the Chief Executive Officer's allocation of performance shares was increased from 85% to 100% of his maximum gross total compensation as Chief Executive Officer in a context of rising share prices (see chapter 5, section 2.2.4.2 of the 2021 Universal Registration Document).*

Compensation components paid to Mr. Benoit Bazin, Chief Executive Officer, during the 2022 fiscal year or granted in respect of the same fiscal year (Article L.22-10-34 II of the French Commercial Code) (*ex post Say-on-Pay*)

Compensation components submitted to vote	Amounts paid or granted or book value subject to vote *(in euros)*	Description
Non-compete indemnity	**None**	See the heading "Non-compete indemnity" in this section 5.2.2, p. 185 below.
Supplementary pension arrangements	**None**	Following the freezing of the defined-benefit supplementary pension plan with conditional rights, set up in 2012, pursuant to Article L. 137-11 of the French Social Security Code (the "**2012 Plan**"), a defined-benefit supplementary pension plan with certain rights, meeting the conditions set out in Article L. 137-11-2 of the French Social Security Code (the "**2012/2 Plan**"), could be set up following the publication of the instruction of the Social Security Department on December 23, 2020. This 2012/2 Plan provides continuity to the 2012 Plan due to consistency in terms of population and benefits. Therefore, the 2012/2 Plan is not an addition to the 2012 Plan but a gradual replacement of it. Indeed, the pension rights vested annually in the 2012/2 Plan reduce the frozen rights in the 2012 Plan by the same proportion and are capped so that, when combined as the case may be with the frozen rights of the 2012 Plan, they do not allow the receipt of a benefit greater than that which could have resulted from the 2012 Plan if its closure had not been imposed by the Order of July 3, 2019. The characteristics of the 2012 and 2012/2 Plans are specified in the Chief Executive Officer's compensation policy for 2023 submitted for approval to the Ordinary Shareholders' Meeting (see section 5.2.2, p. 185). The extension of the 2012/2 Plan to Mr. Benoit Bazin as from 2021 results from the Chief Executive Officer's compensation policy for 2021, approved by the Ordinary Shareholders' Meeting held on June 3, 2021 (fourteenth resolution). The vesting of annual rights under the 2012/2 Plan is subject to the fulfillment of conditions related to the professional performance of Mr. Benoit Bazin assessed annually by the Board of Directors. The performance condition is defined as follows: the achievement, for the year in question, of at least 50% of the individual part of the quantifiable and qualitative objectives relating to the variable portion of the compensation. In February 2023, the Board of Directors noted that the performance condition determining the vesting of Mr. Benoit Bazin's rights in respect of 2022 had been met. As a result, under the 2012/2 plan, the rights vested in 2022 amount to a gross amount of approximately €35,000 per year. In addition, as of December 31, 2022, the total estimated amount of the rights that will be received by Mr. Benoit Bazin under the 2012/2 Plan amounts to a gross amount of approximately €67,000 per year. This indicative amount is calculated in accordance with the procedures set forth in Article D. 22-10-16 of the French Commercial Code. As indicated, this amount reduces the amount that could be paid under the 2012 Plan. In fact, the estimated amount of the rights paid under the 2012/2 Plan, together with that of the rights which could be paid under the 2012 Plan, remains in any event lower than the cap provided for in the "2012" pension plan (eight times the annual social security cap, i.e., 329 088 euros in 2022) and the cap of 45% of fixed and variable compensation provided for in the AFEP-MEDEF Code.

Compensation policies for executive corporate officers subject to the approval of the General Shareholders' Meeting of June 8, 2023 (*ex ante Say-on-Pay*)

Article L.22-10-8 II of the French Commercial Code requires that the compensation policy for executive corporate officers be submitted to the Ordinary Shareholders' Meeting for approval each year. This vote is binding (as opposed to an advisory vote).

At its meeting of February 23, 2023, the Board of Directors, on the proposal of the Nomination and Remuneration Committee, determined the compensation policies for the Chairman of the Board of Directors and the Chief Executive Officer presented below.

The general principles of the compensation policy for the executive corporate officers described in section 5.2.2 p. 185 were reviewed by the Board of Directors and were confirmed for the 2023 fiscal year.

Compensation policy for the Chairman of the Board of Directors subject to the approval of the General Shareholders' Meeting of June 8, 2023 (ex ante Say-on-Pay)

The table below shows the compensation policy for the Chairman of the Board of Directors, submitted for approval to the General Shareholders' Meeting of June 8, 2023 pursuant to Article L.22-10-8 II of the French Commercial Code.

As part of the determination of the compensation policy of the Chairman of the Board of Directors, the Board analyzed the results of the votes during the 2022 General Shareholders' Meeting and inferred that the result of Mr. Pierre-André de Chalendar's ex post Say-on-Pay as Chairman and Chief Executive Officer was linked to reasons no longer applicable in 2023.

Compensation policy for the Chairman of the Board of Directors, subject to the approval of the Ordinary Shareholders' Meeting (Article L.22-10-8 II of the French Commercial Code)

Compensation components attributable to the Chairman of the Board of Directors	Cap	Description
Annual variable compensation	-	The compensation of the Chairman was set by the Board of Directors, at its meeting of February 25, 2021, on the proposal of the Nomination and Remuneration Committee, at €450,000 gross per year for the entire duration of his term of office with no other compensation in respect of his office [(a)]. This compensation is maintained for 2023. The Committee had noted in February 2021, with the assistance of an external firm, that this level was below the median of compensation paid to non-executive Chairmen of CAC 40 companies who previously held the position of Chairman and Chief Executive Officer (excluding financial companies).
Deferred variable compensation	None	The Board of Directors does not intend to grant any annual variable compensation to the Chairman in 2023.
Multi-year variable compensation	None	The Board of Directors does not intend to grant any deferred variable compensation to the Chairman in 2023.
Exceptional compensation	None	The Board of Directors does not intend to grant any multi-year variable compensation to the Chairman in 2023.
Indemnity for taking up office	None	The Board of Directors does not intend to grant any exceptional compensation to the Chairman in 2023.
Long-term compensation	None	The Board of Directors has not granted the current Chairman any severance package and does not plan to do so if a new Chairman would be recruited externally.
Compensation in respect of the Director's term of office	None	The Board of Directors does not intend to grant any long-term compensation to the Chairman during his term of office.
In-kind benefits	None	The Chairman does not receive any compensation for serving as a Director of Compagnie de Saint-Gobain.
Severance indemnity	-	The Chairman has use of a company car.
Non-compete	None	The Board of Directors does not intend to grant any severance indemnity to the Chairman.
indemnity	None	The Board of Directors does not intend to grant any non-compete indemnity to the Chairman.
Health and personal risk insurance	-	Mr. Pierre-André de Chalendar continues to fully benefit from the Group's health and personal risk insurance policies entered into with GAN and Mutuelle Malakoff Médéric respectively during his term of office.

(a) *It is specified that Mr. Pierre-André de Chalendar decided to retire and benefit from his pension rights under the supplementary defined-benefit supplementary pension plan "SGPM" of which he was a beneficiary as Chairman and Chief Executive Officer, as of July 1, 2021. Since that date he has received a supplementary retirement pension, the gross annual amount of which was approximately €394,300 for the 2022 fiscal year.*

Compensation policy for the Chief Executive Officer subject to the approval of the General Shareholders' Meeting of June 8, 2023 (*ex ante Say-on-Pay*)

The table below details the compensation policy for the Chief Executive Officer, subject to the approval of the General Shareholders' Meeting of June 8, 2023 pursuant to article L.22-10-8 II of the French Commercial Code, including the commitments made in his favor on matters such as compensation components and indemnities or benefits due or likely to be due in the event of termination of his duties.

Compensation policy for the Chief Executive Officer subject to the approval of the Ordinary Shareholders' Meeting (Article L.22-10-8 II of the French Commercial Code)

Compensation components attributable to the office of Chief Executive Officer	Cap	Description
Fixed compensation		The fixed compensation of the Chief Executive Officer is commensurate with his experience and responsibilities as Chief Executive Officer and shall be compared with fixed compensation offered by similar large companies in terms of revenues, workforce and market capitalization. In applying these principles, the Board of Directors decided, at its meeting of February 23, 2023, on the proposal of the Nomination and Remuneration Committee, to set this fixed compensation at €1,000,000 for 2023 (unchanged compared to 2022). The Nomination and Remuneration Committee noted again in November 2022, with the assistance of an external firm that this level is lower than the median of CAC 40 industrial companies which are similar to Saint-Gobain in terms of size: revenues, workforce and market capitalization.
Annual variable compensation	**170% of the fixed compensation at maximum**	The Board of Directors decided to leave the cap on the annual variable portion of the Chief Executive Officer's compensation unchanged at 170% of the fixed portion of his compensation (as in 2021 and 2022). The amount of the variable compensation for the 2023 fiscal year will be decided by the Board of Directors in 2024 based on the achievement of quantifiable and qualitative objectives that it established, respectively at 75% and 25% of the variable portion of his compensation (in 2022 the variable portion included a quantifiable portion with financial criteria amounting to 2/3 and qualitative portion amounting to 1/3). Quantifiable objectives include financial objectives and CSR objectives, which account respectively for 60% and 15% of variable compensation. As regards the quantifiable financials objectives, the Board decided to adopt, for the 2023 fiscal year, four quantifiable objectives, considered relevant for assessing the Saint Gobain Group's operating and financial performance and its strategy (as in 2022), each accounting for 25%: the rate of return on capital employed ("ROCE"), the Group's operating income, the Group's net income from recurring operations per share and the free cash flow. Given the volatility of the environment in which the Group operates, which makes it difficult to forecast each indicator, the Board of Directors, after consulting the Nomination and Remuneration Committee, reserves the right to apply an "outperformance" mechanism unchanged from 2022, which would allow partial compensation for the non-achievement of objectives on certain criteria by exceptional outperformance on others. In the event of outperformance on one or more of the four criteria beyond the maximum, it is possible to reach up to 20% of the bonus share relating to the outperforming criterion/criteria, in the event of achievement above the maximum and up to 120% of the maximum, with linearity between 0 and 120% (which leads, for example, to 10% of the bonus share relating to a criterion in the event of achievement of up to 110% of the maximum), it being specified that the sum of the four components may not exceed 102% [(a)] of the fixed portion. Thus, in the extreme case of outperformance of more than 20% of the maximum on three criteria and performance equal to zero on the fourth, the quantifiable portion of the annual variable will be equal to 91.8% of the fixed portion (which responds to the concern that it is not possible to reach the maximum set at 102% of the fixed portion, when one criterion is at zero). If this mechanism were implemented, this would be presented in the compensation components of the *ex post Say-on-Pay*. With regard to quantifiable CSR objectives, the Board decided to retain three objectives, each accounting for 5%: • Carbon objective: reduction of CO_2 emissions (in "scopes" 1 and 2) versus 2022 at current scope (i.e., at actual production) [(b)]; • Safety objective: TF2 between 1.5 (maximum) and 1.8 (minimum); and • Diversity and teams objective: diversity index between 90% (maximum) and 85% (minimum) [(c)].

(a) *The quantifiable financial portion of the variable represents 60% of the variable portion, which may reach a maximum of 170% of the fixed portion, so that its maximum amount is 102% of the fixed portion.*

(b) *The Board of Directors will have the possibility, after consultation with the Nominating and Compensation Committee, to adjust this objective in the event of exceptional circumstances justifying it, particularly in the event of a change in the Group's scope of consolidation or a change in accounting method, in order to neutralize, as far as possible, the consequences of these circumstances on the carbon objective.*

(c) *Index corresponding to the proportion of the Group's Senior managers who have at least one of the following three diversity characteristics: being of a non-French nationality, having diverse professional experience (having worked for Saint-Gobain in two countries other than their country of origin or in at least three different sectors, or having more than 12 years' experience outside the Saint-Gobain Group), and being a woman.*

Compensation policy for the Chief Executive Officer subject to the approval of the Ordinary Shareholders' Meeting (Article L.22-10-8 II of the French Commercial Code)		
Compensation components attributable to the office of Chief Executive Officer	**Cap**	**Description**
		It is specified as necessary that the outperformance mechanism described above and applicable to the financial quantifiable part does not apply to the CSR quantifiable part. In addition, the Board of Directors selected the following qualitative objectives as relevant insofar as they reflect the implementation of strategic objectives for the fiscal year 2023: • Stakeholders management; • Group perimeter: continuing to optimize the Group's perimeter; • Deployment of the "Grow & Impact" strategic plan in its six action priorities: 1 – Position ourselves in high-growth markets, 2 – Be Solutions-oriented, combining performance and sustainability, 3 – Drive growth through customer innovation and the power of data, 4 – Embedding corporate social responsibility in our decisions and actions, 5 – Strengthen our TEC culture (including maintaining high scores in the 2023 "me@Saint-Gobain" survey), and 6 – Have the best teams in a diverse and inclusive work environment (including ongoing actions on diversity and inclusion within the Group). In compliance with the law, the payment of variable compensation to the Chief Executive Officer in respect of fiscal year 2023 will be subject to approval by the Ordinary General Meeting to be held in 2024.
Deferred variable compensation	**None**	The Board of Directors also selected the following qualitative objectives as relevant insofar as they insofar as they reflect the implementation of strategic orientations for the fiscal year 2023:
Multi-year variable compensation	**None**	The Board of Directors does not intend to grant any multi-year variable compensation to the Chief Executive Officer in 2023.
Exceptional compensation	**None**	The Board of Directors does not intend to grant any exceptional compensation to the Chief Executive Officer in 2023. In accordance with the law, the payment of any exceptional compensation would be conditioned to the approval of the 2024 Ordinary Shareholders' Meeting.
Indemnity for taking up office	**-**	The Board of Directors reserves the option, if a new Chief Executive Officer were to be recruited outside the Group, to grant him/her an indemnity for taking up office to compensate for the loss of benefits, in compliance with current practices, such as the annual variable compensation and/or long-term compensation components which he/she was entitled to as part of his/her previous duties. This indemnity for taking up office could take the form of payments in cash and/or allocation of securities subject to performance conditions.

Compensation policy for the Chief Executive Officer subject to the approval of the Ordinary Shareholders' Meeting (Article L.22-10-8 II of the French Commercial Code)

Compensation components attributable to the office of Chief Executive Officer	Cap	Description
Long-term compensation	**Cap for the allocation of long-term compensation instruments to the CEO of 75,000 shares** **and** **Cap for the allocation to the CEO set at 10% of the overall grant of performance shares in 2022 (no performance unit)** **and** **Cap for the allocation to the CEO provided for by the 17th (options) and 18th (performance shares) resolutions of the General Shareholders' Meeting of June 2, 2022**	The Board of Directors has decided that the allocation of long-term compensation instruments from which the Chief Executive Officer may benefit may not exceed 75,000 shares. This cap, which defines the latitude available to the Board at the time of granting long-term compensation instruments, does not necessarily prejudge the decision that will be taken in November 2023. In addition, the Board of Directors decided that the Chief Executive Officer could not be allocated more than 10% of the overall grant of performance shares under the plan to be implemented in 2023 (no performance unit plan). As a reminder, the sub-cap for the allocation of stock options to executive corporate officers was set by the General Shareholders' Meeting of June 2, 2022 at 10% of the cap set by the 17th resolution (sub-cap common to the 18th resolution of the same Meeting relating to the allocation of performance shares which itself provides for a sub-cap for allocation to executive corporate officers of 10% of the cap in the resolution). The Board of Directors, on the recommendation of the Nomination and Remuneration Committee, indicated to the General Shareholders' Meeting of June 2, 2022, its intention to submit the delivery of performance shares (the only long-term compensation instruments planned to be granted in 2023) subject to a presence condition and performance conditions that will be based at least on the following criteria historically applied to the Group's long-term compensation plans: 1. an internal performance criterion (the Group's ROCE); 2. a relative performance criterion (the stock market performance of the Saint-Gobain share compared to the CAC 40 stock market index); 3. a criterion relating to Corporate Social Responsibility. These criteria were deemed relevant by the Board of Directors as they reflect the operational, financial and non-financial performance of the Saint-Gobain Group and ensure that the beneficiaries are aligned with the interests of Saint-Gobain shareholders. If these criteria cease to be relevant, the Board would set criteria of a comparable requirement in order to continue to put in place consistent compensation instruments over the long term. The performance objectives relating to each of the above criteria will be set by the Board of Directors when the performance shares are allocated and will be final. However, the Board of Directors will have the possibility, after consulting the Nomination and Remuneration Committee, to adjust them in the event of exceptional circumstances justifying this, in particular in the event of a change in the Group's scope of consolidation or a change in accounting method, in order to neutralize, to the extent possible, the consequences of these circumstances on the objectives set on the grant date. The assessment period for the performance conditions of long-term compensation instruments may not be less than three years. As in the past, the Board will set for the Chief Executive Officer, for any allocation in 2023 as part of a long-term compensation plan in the form of performance shares, a strict obligation to retain shares or to reinvest in shares that the Chief Executive Officer must hold in registered form until the end of his term of office.

Compensation policy for the Chief Executive Officer subject to the approval of the Ordinary Shareholders' Meeting (Article L.22-10-8 II of the French Commercial Code)

Compensation components attributable to the office of Chief Executive Officer	Cap	Description
Consequences of the termination of his duties as a corporate officer on his stock options, performance shares performance units and other long-term compensation instruments	-	a) In the event of **termination of his office as corporate officer,** the Chief Executive Officers (or his heirs in the event of death) **shall be deprived of his right to exercise stock options or receive performance shares, performance units and other long-term compensation** instruments granted to him during his term as Chief Operating Officer for which the minimum exercise period, or the acquisition period, will not have expired as of the date of termination of his office as corporate officer (with the exception of events of death, disability or retirement, in which case the long-term compensation instruments will be maintained as stated in the related rules for the long-term compensation plans). b) **The Board of Directors will nevertheless have the option**, at the proposal of the Nomination and Remuneration Committee, to decide to derogate from the service condition and **to maintain, exclusively on a *pro rata temporis* basis**, the benefit of stock options, performance shares, performance units and other long-term compensation instruments granted to him since his appointment as Chief Operating Officer for which the minimum exercise period, or the acquisition period, will not have expired as of the date of termination of his office as corporate officer. Such decision by the Board of Directors shall occur no later than the day of the termination of office. Any such decision by the Board of Directors must be justified in accordance with the AFEP-MEDEF Code. The exercise of stock options and performance units, and the vesting of performance shares and other long-term compensation instruments would nonetheless remain subject in this case to the fulfillment of the performance conditions stipulated in the rules of the relevant plans. c) By exception, the Board of Directors **shall not have the option to maintain** this benefit in the following cases: • dismissal for gross or serious misconduct, or serious misconduct not related to his duties; and • **resignation** from the duties of company Director which does not constitute a case of "Forced Resignation". "**Forced Resignation**" means a resignation from the duties of executive corporate officer that occurs within the 12 months following: – the date of approval by the General Shareholders' Meeting of a merger or a demerger affecting Compagnie de Saint-Gobain, or – the effective date on which a third party or group of investors acting in concert acquires control of Compagnie de Saint-Gobain (in accordance with Article L.233-3 of the French Commercial Code), or – the announcement by the Compagnie de Saint-Gobain's management bodies of a significant shift in the Saint-Gobain Group's strategy leading to a major change in its business.
Compensation in respect of the Director's term of office	**None**	The Chief Executive Officer does not receive any compensation for serving as a Director of Compagnie de Saint-Gobain.
In-kind benefits	-	The Chief Executive Officer has use of a company car.

Compensation policy for the Chief Executive Officer subject to the approval of the Ordinary Shareholders' Meeting (Article L.22-10-8 II of the French Commercial Code)

Compensation components attributable to the office of Chief Executive Officer	Cap	Description
	Cap set at twice the total gross annual compensation, including the non-compete indemnity	Mr. Benoit Bazin has renounced his employment contract, which he entered into with the Saint-Gobain Group more than 20 years ago, as from July 1, 2021. He has not been granted any indemnity payment on this occasion. In the event of Forced Departure, whatever form this departure takes, in the following circumstances: a) early dismissal or non-renewal of the term of office of the Chief Executive Officer at the end of the term, except at his initiative or in the event of serious or gross misconduct or misconduct not related to the duties of Chief Executive Officer, or b) Forced resignation, Mr. Benoit Bazin would receive an indemnity equal to a maximum of twice the total gross annual compensation defined as the sum of the fixed portion of his annual compensation as Chief Executive Officer received at the date of termination of office, and the average of the variable portion of his annual compensation received or to be received in respect of the last three full fiscal years available during which he held the position of Chief Executive Officer and ended prior to the date of termination of his office. In any event, no amount would be due in respect of the severance indemnity in the event that Mr. Benoit Bazin would leave Compagnie de Saint-Gobain at his own initiative, other than in the circumstances described above, or if, leaving the Company at his own initiative in one of the circumstances described above, he had the opportunity, within 12 months following the date of termination of his duties as Chief Executive Officer, to retire and be eligible to benefit from his retirement rights under the "2012" defined-benefit pension plan or any other supplementary pension plan then applicable (see "Supplementary pension arrangements" section below). In any event, the combination of this severance indemnity and the non-compete indemnity may not exceed twice the amount of the total gross annual compensation of Mr. Benoit Bazin. Eligibility for severance indemnity will be subject to the fulfillment of a performance condition defined as the granting by the Board of Directors, on average for the last three full fiscal years available during which he held the position of Chief Executive Officer and closed prior to the date of termination of his duties, of a variable portion of compensation at least equal to half of the maximum amount set for this variable portion. The payment of this severance indemnity shall be subject to the prior verification by the Board of Directors, under the conditions prescribed by the applicable law, of the fulfillment of said performance condition, assessed on the date of termination of his duties.
Non-compete indemnity	**Cap set at one year of total gross annual compensation** **and** **Combined non-compete indemnity and severance indemnity capped at two years of total annual gross compensation**	Mr. Benoit Bazin has signed a firm and binding non-compete undertaking in favor of Compagnie de Saint-Gobain [(1)] with a term of one year as from the date of his loss of office as Chief Executive Officer. In consideration of this undertaking, in the event of termination of office as Chief Executive Officer for any reason whatsoever, Mr. Benoit Bazin would receive an **indemnity equal to one year's total gross annual compensation.** The total gross annual compensation would consist of the same fixed and variable components as those used to determine the severance indemnity mentioned above. In any event, **the combination of this non-compete indemnity and the severance indemnity may not exceed twice the amount of the total gross annual compensation** of Mr. Benoit Bazin. It should be noted that this non-compete undertaking is a protection mechanism of the Saint-Gobain Group, the non-compete indemnity being the imperative financial consideration for the restrictions imposed. However, the Board of Directors has reserved the right to unilaterally waive the benefit of this non-compete undertaking no later than the date of termination of the office of the Chief Executive Officer, in which case the Chief Executive Officer would be released from any commitment and no sum would be due to him in this respect. In addition, the payment of the non-compete indemnity would be excluded as soon as Mr. Benoit Bazin benefited from his pension rights. In any event, no indemnity would be paid beyond the age of 65.

(1) *Activity concerned: any company whose main activity is the trading of construction materials or the production of construction materials similar to those produced by the Saint-Gobain Group. Territory: European Union, EFTA and Switzerland.*

Compensation policy for the Chief Executive Officer subject to the approval of the Ordinary Shareholders' Meeting (Article L.22-10-8 II of the French Commercial Code)

Compensation components attributable to the office of Chief Executive Officer	Cap	Description
Supplementary pension arrangements	-	**2012 Plan:** Mr. Benoit Bazin benefits from the 2012 Plan, under the same conditions as those applicable to all beneficiaries of this pension plan. The 2012 Plan benefits all Compagnie de Saint-Gobain employees who meet the following five conditions: (i) have at least ten (10) years' seniority within the Saint-Gobain Group as of July 4, 2019, (ii) have received annual compensation exceeding eight annual social security caps for at least three of the last ten years of employment prior to July 4, 2019, (iii) have completed their career as an employee of Compagnie de Saint-Gobain, (iv) have liquidated all of their retirement pensions, (v) have not been dismissed for gross misconduct. The methods for determining the reference compensation set by the 2012 Plan and used to calculate the rights of beneficiaries are as follows: (i) base compensation consists exclusively of the following elements: fixed, variable and benefits in kind, and (ii) the base compensation taken into account for the calculation is an average of three consecutive years, including the highest over the last ten years of activity. The 2012 Plan's benefit entitlement is calculated as follows: 1.8% of the portion of base compensation between 8 and 20 times the annual social security cap, plus 0.4% of the portion of base compensation exceeding 20 times the annual social security cap. The amount of the supplemental pension provided by the 2012 Plan is capped twice: • by the number of years of seniority taken into account in the calculation, which cannot exceed 20. Only the years of presence of the potential beneficiary until December 31, 2019 are taken into account. Thus, to determine the annual pension amount, the above-mentioned benefit entitlements are multiplied by the number of years of service, and • by an absolute cap: the pension may never exceed eight times the annual social security cap (i.e. €329,088 in 2022). In addition, the annual amount of the supplementary pension provided for under the 2012 Plan is reduced by the amount of other defined-benefit supplementary pensions received. Thus, the annual pension vested by beneficiaries of the 2012 Plan under another defined-benefit plan, such as the 2012/2 Plan, reduces the annual rights that would be paid under the 2012 Plan by the same amount. Since Mr. Benoit Bazin joined the Saint-Gobain Group on September 1, 1999, he had reached the 20 years' service cap provided under the 2012 Plan in September 2019, and therefore, he would be unable to acquire any conditional rights under this plan as from that date. In the event of departure with the maximum years of service (acquired in September 2019) under the 2012 Plan, Mr. Benoit Bazin would be entitled to an annual pension supplement equivalent to 30% of his last fixed compensation. Mr. Benoit Bazin's maximum supplementary theoretical retirement payout is lower than the AFEP-MEDEF Code's recommended cap, which is set at 45% of the sum of the fixed and annual variable compensations. These rights are financed by premiums paid to an insurance company which are deductible from the corporate income tax base. With respect to the social security charges associated with the payment of the rights, the Company would be subject to the payment of a contribution based on the premiums paid to the insurer, the rate of which is set by the French Social Security Code at 24%. At December 31, 2022, Mr. Benoit Bazin's estimated rights under the 2012 Plan would amount to around €224,000 per year, below the cap for the 2012 Plan (eight times the annual social security cap, i.e. €329,088 in 2022). This indicative amount is calculated in accordance with Article D. 22-10-16 of the French Commercial Code, according to which the rights must be estimated on an annual basis, take into account the accumulated years of service of the corporate officer in his/her duties on the fiscal year-end date, be based on the compensation during the last fiscal year(s) and be calculated disregarding the effective satisfaction of the conditions to which the commitment is subject, as if the corporate officer could benefit from it starting the day after fiscal year-end. The commitments made by the company to Mr. Benoit Bazin under the 2012 Plan may be terminated by decision of the Board of Directors. The 2012 Plan has been frozen as of December 31, 2019 such that no conditional rights can be vested after that date in accordance with Order No. 2019-697 of July 3, 2019 relating to supplementary professional pension arrangements.

Compensation policy for the Chief Executive Officer subject to the approval of the Ordinary Shareholders' Meeting (Article L.22-10-8 II of the French Commercial Code)

Compensation components attributable to the office of Chief Executive Officer	Cap	Description
		2012/2 Plan: Following this freeze, a defined-benefit supplementary pension plan with certain rights, meeting the conditions set out in Article L.137-11-2 of the French Social Security Code, the "2012/2 Plan", could be set up following the publication of the instruction of the Social Security Department on December 23, 2020. This 2012/2 Plan provides continuity to the 2012 Plan due to consistency in terms of population and benefits. Therefore, the 2012/2 Plan concerns only those employees who are in the workforce on its effective date and who benefit from the 2012 Plan. Moreover, the 2012/2 Plan is not an addition to the 2012 Plan but a gradual replacement of it. Indeed, the pension rights vested annually in the 2012/2 Plan reduce the frozen rights in the 2012 Plan by the same proportion and are capped so that, when combined as the case may be with the frozen rights of the 2012 Plan, they do not allow the receipt of a benefit greater than that which could have resulted from the 2012 Plan if its closure had not been imposed by the Order of July 3, 2019. The 2012/2 Plan provides for the payment of a life annuity to the beneficiary, with the possibility of reversion, starting at the earliest from the date of liquidation of his pension in a compulsory old age insurance scheme to which he has contributed or from the legal retirement age mentioned in Article L.161-17-2 of the French Social Security Code. After the life annuity has been settled, no new pension rights may be granted. In the event of death before the liquidation of the vested rights, the latter will be converted into capital and paid to the previously designated beneficiaries. The reference compensation used to calculate the rights consists of the fixed and variable portions of the compensation as well as benefits in kind, taken into account for the calculation of social security contributions (pursuant to Article L.242-1 of the French Social Security Code). For the calculation of the reference compensation, the variable portion paid for the year in question is capped at 60% of the fixed portion of the previous year's compensation. The rights vested annually correspond to: 5.4% of the reference compensation between 8 and 20 times the annual social security cap in force for the year in question, plus 1.2% of the reference compensation exceeding 20 times the annual social security cap in force for the year in question. The acquisition of annual rights is subject to compliance with conditions related to the beneficiary's professional performance, assessed annually by the employer. The rights vested annually may not exceed 3% of the reference compensation. In addition, the cumulative number of percentage points applied to the same beneficiary under a scheme covered by Article L.137-11-2 of the French Social Security Code is capped at 30 points over the beneficiary's entire career and for all employers combined. Finally, in addition to these legal limits, the 2012/2 Plan has its own limit to ensure that it does not allow the beneficiary to receive a higher benefit than that which would have resulted from the 2012 Plan had its closure not been imposed by the Order of July 3, 2019. Thus, it is verified each year that the estimated rights vested under the 2012/2 Plan do not exceed the estimated amount of the "maximum" annual rights corresponding to the rights that could have resulted from the 2012 Plan if its closure had not been imposed by the July 3, 2019 Order. If this cap is not observed, the grant of rights for the following year is null and void. In accordance with the Chief Executive Officer's compensation policy for 2022, approved by the Ordinary Shareholders' Meeting held on June 2, 2022 (thirteenth resolution), the application of the 2012/2 Plan has been extended to Mr. Benoit Bazin as of 2021. Mr. Benoit Bazin's vesting of annual rights is subject to compliance with conditions related to his professional performance, verified and validated annually by the Board of Directors at the beginning of the year following the year concerned. The performance condition is defined as follows: the achievement, for the year in question, of at least 50% of the individual part of the quantifiable and qualitative objectives relating to the variable portion of the compensation. Vesting may be zero (0%) in the year in which performance is below the threshold thus determined. The vested rights are revalued annually by a coefficient equal to the change in the social security cap. In the event of Mr. Benoit Bazin's departure from the Company, the rights will be revalued annually according to the technical and financial results of the insurer. These rights are financed exclusively by premiums paid by the Company to an insurer, which are deductible from the corporate tax base. As regards the social security charges associated with the payment of the annuity, the Company is subject to the payment of a contribution based on the premiums paid to the insurer, the rate of which is set by the French Social Security Code at 29.7%.

Compensation policy for the Chief Executive Officer subject to the approval of the Ordinary Shareholders' Meeting (Article L.22-10-8 II of the French Commercial Code)

Compensation components attributable to the office of Chief Executive Officer	Cap	Description
		The commitments made by the Company to Mr. Benoit Bazin under the 2012/2 Plan may be terminated by decision of the Board of Directors. However, the rights prior to this termination would remain vested, in accordance with the applicable legal provisions. On February 23, 2023, the Board of Directors noted that the performance condition determining the vesting of Mr. Benoit Bazin's rights in respect of 2022 had been met. As a result, under the 2012/2 plan, the rights vested in 2022 amount to a gross amount of approximately €35,000 per year. In addition, as of December 31, 2022, the total estimated amount of the pension that will be received by Mr. Benoit Bazin under the 2012/2 Plan amounts to a gross amount of approximately €67,000 per year. This indicative amount is calculated in accordance with the procedures set forth in Article D. 22-10-16 of the French Commercial Code. As indicated, this amount reduces the amount that could be paid under the 2012 Plan. In fact, the estimated amount of the rights paid under the 2012/2 Plan, together with those which could be paid under the 2012 Plan, remains in any event lower than the cap provided for in the 2012 Plan (eight times the annual social security cap, i.e. €329,088 in 2022) and the cap of 45% of fixed and variable compensation provided for in the AFEP-MEDEF Code. Pursuant to Article 5, II of the above-mentioned Order of 3 July 2019, the Board of Directors reserves the right to transfer the commitments of the 2012 Plan to the 2012/2 Plan and to extend its application to Mr Benoit Bazin. In any event, no rights would be transferred beyond the 30-point ceiling provided for in Article L. 137-11-2 of the Social Security Code, it being specified that this ceiling would be assessed by comparing the amount of the conditional rights at the date of the transfer to the average remuneration of the persons concerned over the last three years in the 2012 Plan. In the event of a transfer, the Company would be liable for a contribution in full discharge of its liabilities at a rate of 29.7% under the conditions provided for in Article 5, II of the Order of 3 July 2019. This contribution would then replace, in respect of the rights transferred, the 24% contribution based on the premiums paid to the insurer.
Health and personal risk insurance	-	By decision of the Board of Directors, Mr. Benoit Bazin continues to fully benefit from the Group's health and personal risk insurance policies entered into with GAN and Mutuelle Malakoff Médéric respectively during his term of office.

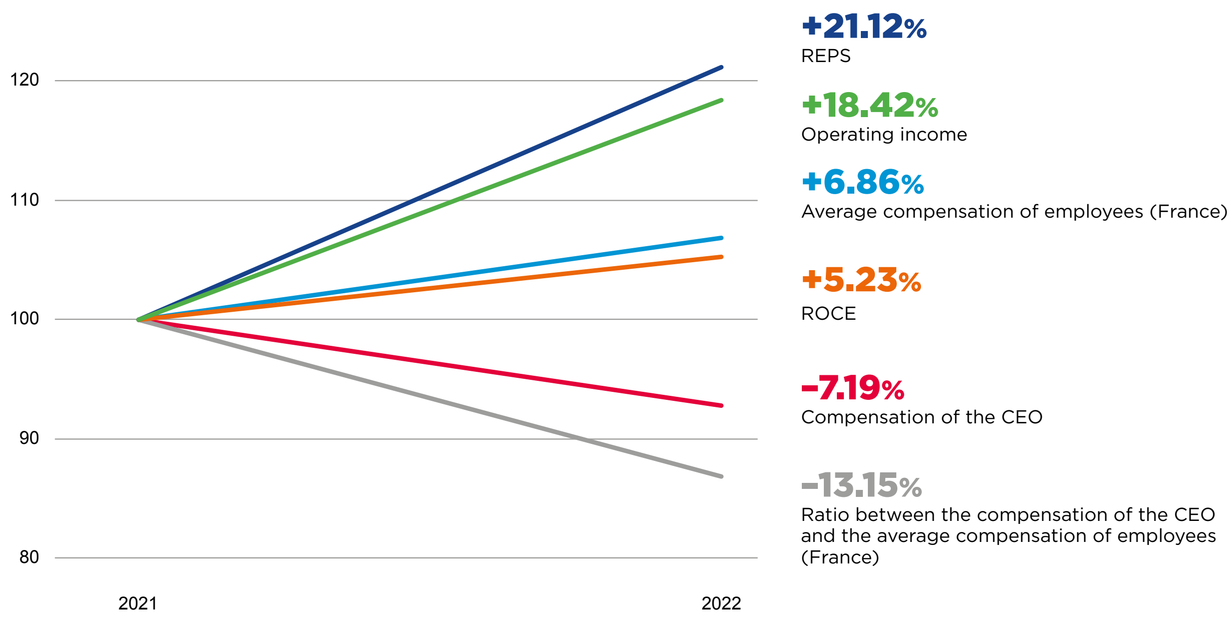
Compensation ratios

The chart below shows the change of:

- the compensation of the Chief Executive Officer;
- the average compensation of the employees of the consolidated subsidiaries of the Saint-Gobain Group in France [(4)];
- the ratio between the compensation of the Chief Executive Officer and the average compensation of the employees of the consolidated subsidiaries of the Saint-Gobain Group in France; and
- the performance of the Saint-Gobain Group (operating income, return on capital employed (ROCE) and recurring earnings per share (REPS).

The employees of Saint-Gobain Group's consolidated subsidiaries incorporated in France represent 38,461 employees, i.e. almost 22.9% of the Group's workforce at December 31, 2022.

Given the appointment of Mr. Benoit Bazin as Chief Executive Officer since July 1, 2021 and in accordance with the guidelines on compensation multiples published by the Afep on January 28, 2020, updated in February 2021, data relating to the Chief Executive Officer's compensation are presented only for the fiscal years 2021 (on an annualized basis in accordance with the methodology for calculating the compensation ratios described below) and 2022.



Change in compensation

Pursuant to Articles L.22-10-9, 6° and 7° of the French Commercial Code, the table below shows, over the last five fiscal years on a full-time equivalent basis:

- the change in the compensation of the executive corporate officers of Compagnie de Saint-Gobain, the mean and median compensation of employees of Compagnie de Saint-Gobain, and the performance of the Group;
- the ratios between the compensation of the executive corporate officers of Compagnie de Saint-Gobain and the mean and median compensation on a full-time equivalent basis of its employees, and any changes thereto, over the last five fiscal years.

On a voluntary basis, in the interest of relevance and transparency vis-à-vis Saint-Gobain Group stakeholders, the table below also presents these data on the basis of the "France scope" [(5)].

(4) *Information provided on a voluntary basis.*

(5) *Data on the median compensation of employees in France are only available for 2020 and 2021 (see the "France scope" below).*

TABLE OF EQUITY RATIOS AND COMPARISON OF THE ANNUAL CHANGE IN COMPENSATION AND PERFORMANCE OF THE COMPANY UNDER ARTICLE L.22-10-9, 6° AND 7° OF THE FRENCH COMMERCIAL CODE

	2022	2021 [(a)]	2020	2019	2018
Evolution of the Group performance					
Evolution of operating income	18.4%	57.9%	(15.8)%	5.7%	3.1%
Evolution of recurring earnings per share	21.1%	28.8%	(22.4)%	10.3%	7.4%
Evolution of return on capital employed	5.2%	47.1%	(6.3)%	3.7%	2.7%
Employees compensation					
Evolution of the average compensation (Compagnie de Saint-Gobain)	1.2%	8.6%	6.1%	5.1%	(6.3)%
Evolution of the median compensation (Compagnie de Saint-Gobain)	13.5%	13.4%	2.1%	5.4%	3.4%
Evolution of the average compensation (France)	6.9%	8.1%	0.0%	2.3%	3.3%
Evolution of the median compensation (France)	7.6%	8.6%	*	*	*
Chairman and Chief executive officer (until July 1, 2021)					
Evolution of compensation	—	(29.5)% [(b)]	3.3%	26.1%	(23.5)%
Ratio on average compensation (Compagnie de Saint-Gobain)	—	15	22	23 [(d)]	19
(change in ratio)	—	(35.1)%	(2.6)%	20.0% [(d)]	(18.4)%
Ratio on median compensation (Compagnie de Saint-Gobain)	—	26	42	42	35
(change in ratio)	—	(37.8)%	1.2%	19.6%	(26.1)%
Ratio on average compensation (France)	—	69	106	103	84
(change in ratio)	—	(34.8)%	3.3%	23.3%	(26.0)%
Ratio on median compensation (France)	—	84	130	*	*
(change in ratio)	—	(35.1)%	*	*	*
Chairman of the Board of Directors (since July 1, 2021)					
Evolution of compensation	0	N/A	N/A	N/A	N/A
Ratio on average compensation (Compagnie de Saint-Gobain)	2	2	—	—	—
(change in ratio)	0	—	—	—	—
Ratio on median compensation (Compagnie de Saint-Gobain)	3	4	—	—	—
(change in ratio)	(25)%	—	—	—	—
Ratio on average compensation (France)	9	10	—	—	—
(change in ratio)	(10.0)%	—	—	—	—
Ratio on median compensation (France)	11	12	—	—	—
(change in ratio)	(8.3)%	—	—	—	—
Chief operating officer (until July 1, 2021)					
Evolution of compensation	—	(29.9)% [(c)]	16.9%	N/A	N/A
Ratio on average compensation (Compagnie de Saint-Gobain)	—	8	13	12	N/A
(change in ratio)	—	(35.5)%	10.2%	N/A	N/A
Ratio on median compensation (Compagnie de Saint-Gobain)	—	15	25	21	N/A
(change in ratio)	—	(38.2)%	14.5%	N/A	N/A
Ratio on average compensation (France)	—	40	62	53	N/A
(change in ratio)	—	(35.2)%	16.9%	N/A	N/A
Ratio on median compensation (France)	—	49	76	*	*
(change in ratio)	—	(35.5)%	*	*	*

	2022	2021 (a)	2020	2019	2018
Chief executive officer (since July 1, 2021)					
Evolution of compensation	(7.2)% (d)	N/A	N/A	N/A	N/A
Ratio on average compensation (Compagnie de Saint-Gobain)	21	23	—	—	—
(change in ratio)	(8.7)%	—	—	—	—
Ratio on median compensation (Compagnie de Saint-Gobain)	33	40	—	—	—
(change in ratio)	(17.5)%	—	—	—	—
Ratio on average compensation (France)	93	107	—	—	—
(change in ratio)	(13.1)%	—	—	—	—
Ratio on median compensation (France)	112	130	—	—	—
(change in ratio)	(13.8)%	—	—	—	—

* *Information not available.*
(a) *Given the changes in corporate governance during the 2021 fiscal year, the compensation of executive corporate officers for the 2021 fiscal year has been annualized.*
(b) *Mr. Pierre-André de Chalendar did not receive any performance shares for 2021.*
(c) *Mr. Benoit Bazin did not receive any performance shares in his capacity as Chief Operating Officer for the period from January 1 to June 30, 2021.*
(d) *The decrease in Mr. Benoit Bazin's remuneration is explained by the decrease in the valuation (according to IFRS) of the performance shares granted on 24 November 2022.*

Method used to calculate compensation ratios

To calculate the compensation ratios presented above, Compagnie de Saint-Gobain referred to the guidelines on compensation multiples published by the AFEP on January 28, 2020, updated in February 2021. The compensation components and the methodology selected are shown below.

France scope

The France scope includes all employees of the consolidated subsidiaries of Saint-Gobain Group incorporated in France, on a full-time equivalent basis, and any changes thereto (excluding executive corporate officers). Data on the median compensation of employees in the France scope are available for 2020 and 2021. The median compensation ratio (France scope) is therefore presented from 2020 onwards.

The France scope is homogeneous in terms of salary structure and the type of contracts taken into account, and is not subject to exchange rate fluctuations, which allows a better comparability over time. The workforce in France represented nearly 22.9% of the Group's workforce at December 31, 2022.

The difference between the ratios on Compagnie de Saint-Gobain's average compensation and on average compensation in France is mainly due to the distribution structure of the employees in the scopes concerned: thus, while in 2022, Compagnie de Saint-Gobain comprised 83% of managers (including all members of the Executive Committee of the Saint-Gobain Group except those based in a foreign country) and 17% of administrative employees, the France scope comprised 24.7% of managers, 52.3% of administrative employees and 23% of blue-collar workers.

Compensation components used

For executive corporate officers: all compensation components paid or awarded during or for the fiscal year in question, submitted to the vote of the General Shareholders' Meeting (ex post Say-on-Pay) [6], namely:

- the fixed compensation paid during the given fiscal year;
- the annual variable compensation granted in respect of the same fiscal year;
- any exceptional compensation paid during the same fiscal year;
- long-term compensation instruments granted during the same fiscal year (stock options, performance shares and/or performance units) at IFRS value on the grant date;
- benefits in kind (company car) granted during the same fiscal year (book value);
- it being specified that executive corporate officers are not granted any compensation in respect of their Directors' term of office within the Saint-Gobain Group.

(6) *Refer to section 5.2.2 for details of the gross amounts paid or allocated in respect of the 2022 fiscal year to the Chairman of the Board of Directors and the Chief Executive Officer.*

For employees:

- the fixed gross compensation paid during the given fiscal year;
- for reasons of information availability on the publication date of the Universal Registration Document, the annual gross variable (annual bonus, profit-sharing, incentive schemes, payments into the Group Savings Plan, as applicable) and exceptional (premiums) compensation paid during the same fiscal year;
- long-term compensation instruments granted during the same fiscal year (stock options, performance shares and/or performance units) at IFRS value on the grant date;
- benefits in kind granted during the same fiscal year (book value);
- to ensure consistency with the compensation components paid to the executive corporate officers, termination of office indemnities are not included.

Governance changes

In view of the changes in governance in 2021:

- the executive corporate officers compensation for the 2021 fiscal year has been annualized;
- the compensation ratios of all executive corporate officers over the last five years are presented.

Employees taken into account

Only the employees who have entered into an indefinite or fixed-term employment contract with Compagnie de Saint-Gobain or a consolidated subsidiary of the Saint-Gobain Group registered in France and who have been continuously employed in these companies from January 1 to December 31 of the fiscal year in question were taken into account when calculating the ratios. The employees who have entered into a part-time employment contract with Compagnie de Saint-Gobain or a consolidated subsidiary of the Saint-Gobain Group registered in France were not taken into account when calculating the ratios but represent less than 3% of the workforce for the considered scope.

Concept of full-time equivalent

To determine the average and median compensation paid to employees of Compagnie de Saint-Gobain and the consolidated subsidiaries of the Saint-Gobain Group registered in France on a full-time equivalent basis, the methodologies already in use within the Group for social reporting reviewed by the independent third party in charge of reviewing non-financial information were used (see section 9.2.1, p. 375).

Changes in scope

Within the French scope, the consolidated subsidiaries sold during a given fiscal year are excluded from the ratios calculations of that fiscal year. The acquired companies which were in the process of being consolidated on December 31, 2022 are excluded from the ratios calculations, but represent less than 3% of the total number of employees of the consolidated subsidiaries of the Saint-Gobain Group registered in France.

Effect of Covid-19 on the calculation of compensation ratios in 2019 and 2020

On the proposition of the corporate executives officers concerned, the compensation of executive corporate officers for fiscal years 2019 and 2020 taken into account for the calculation of the compensation ratios for 2019 and 2020 were impacted by the reductions of 25% of their fixed compensation for 2020 and 25% of their variable compensation for 2019 (see chapter 5, section 2.2.2 of the Company's 2020 Universal Registration Document) decided by the Board of Directors for as long as the Saint-Gobain Group's employees were subject to partial employment in the context of the emergency measures taken by the French Government to halt the spread of the Covid-19 pandemic.

Compensation paid by the French State in 2020 to employees of Saint-Gobain Group entities subject to partial employment in the context of the emergency measures taken by the French Government to halt the spread of the Covid-19 pandemic are taken into account for the purposes of calculating compensation ratios for 2020 as if that compensation had been paid by the Saint-Gobain Group.

5.2.3 COMPENSATION OF MEMBERS OF THE GROUP'S SENIOR MANAGEMENT

Compensation paid to members of the Group's Senior Management is set at a level consistent with compensation packages offered by comparable groups. It is determined and reviewed, among other things, based on the results of specific surveys from specialized consultants commissioned by Group's Senior Management. They include, in addition to a fixed portion, a reasonable variable portion in relation to the total compensation, the purpose of which is to reflect the CEO's personal contribution to the results and development of the scope, taking into account three financial indicators: cash flow generation, operating margin relative to turnover, and Return on Capital Employed ("ROCE"), qualitative objectives and the results concerning occupational health and safety and CO_2 emissions.

This principle is applied to the whole of middle and senior management.

In this way, management compensation is clearly linked to performance and to the achievement of objectives that promotes a high level of personal commitment. Each manager's compensation can fluctuate significantly from one year to the next, based on the results achieved.

Total gross compensation received in 2022 from the Group's French and foreign companies by members of the Executive Committee as composed at December 31, 2022 (excluding the executive corporate officers and excluding long-term compensation components), amounted to €12.9 million (versus €10.8 million in 2021), including €4.4 million (versus €3.7 million in 2021) gross variable compensation in respect of 2022, an increase compared to the gross variable compensation in respect of 2021. No severance payments were made to members of the Executive Committee as composed on December 31, 2022 (same as in 2021).

Pensions and other post-employment benefits (Defined-Benefit Obligations in respect of length-of-service awards and pensions) accruing to the members of the Executive Committee as composed at December 31, 2022 (including the Chief Executive Officer) totaled €29.2 million at December 31, 2022 (versus €31.0 million at December 31, 2021) (see Note 6.2 of the consolidated financial statements, section 8.1).

Compensation allocated to Directors representing the Group (particularly members of Group's Senior Management) in Group companies other than Compagnie de Saint-Gobain are either reverted to their employer company, or paid directly to that company.

5.2.4 LONG-TERM COMPENSATION PLANS (PERFORMANCE SHARES, STOCK OPTIONS AND PERFORMANCE UNITS)

Attribution policy

The objective of the Group's long-term compensation policy is to retain and motivate the Group's Senior Management, officers and employees, and to associate them with the Group's performance, in particular through conditional allocations of performance shares, stock options or performance units to reflect their fulfillment of the Group's long-term strategy.

At the recommendation of the Nomination and Remuneration Committee, the Board of Directors authorizes the features of the performance share and stock option plans, as well as the identity of the beneficiaries. These plans are subject to a service condition and to the strict internal and/or relative performance criteria set by the Board (see below for details of each allocation).

In 2022, it was decided, as in 2021, to only implement a performance share plan. This plan applied to 2,671 of the Group's managers and officers, in France and overseas: managers with outstanding performance and high-potential managers (2,540), the main functional and operational heads of the Entities and Regions (116), Executive Committee (15, excluding the Chief Executive Officer). Grants to the Chief Executive Officer are detailed in the paragraph "Long-term compensation policy" in this section 5.2.2, p. 185

The beneficiaries of this plan are of 59 different nationalities and work in 67 countries.

The performance share plan entitles beneficiaries to existing shares and therefore has no impact in terms of dilution. No stock option or performance unit plan was set up during fiscal year 2022.

The other instruments designed to associate employees with business results are presented in section 7.1.6 p. 253 and section 3.2.3 A, p. 94.

Performance share plans

Performance share plans have been set up by the Board of Directors every year since 2009.

Under the authorization granted by the eighteenth resolution of the General Shareholders' Meeting of June 2, 2022, at its meeting of November 24, 2022 the Board of Directors resolved to implement a performance share plan, following analysis and the recommendation of the Nomination and Remuneration Committee.

This plan covers 2,672 managers and officers of the Group in France and abroad, who were granted a total of 1,232,792 performance shares (including the grant to the Chief Executive Officer).

It should be noted that, as in 2021, no stock option plans or performance units were put in place in 2022, as all beneficiaries received performance shares.

The duration of the vesting period was set at four years, with delivery of the shares to occur on the fourth day after the close of this period.

The performance criteria applicable to the performance share plan implemented on November 24, 2022, applicable for both the Chief Executive Officer and the Group's managers and officers, include, as has been the case since 2015, an internal performance condition linked to Saint-Gobain Group's Return on Capital Employed, including goodwill, and a performance condition linked to the performance of the Saint-Gobain stock price compared to the performance of the CAC 40 stock market index. Furthermore, following dialog with investors, the long-term compensation plans put in place since 2017 by the Board of Directors, on the proposal of the Nomination and Remuneration Committee, now include a criterion relating to Corporate Social Responsibility. These criteria were deemed relevant by the Board of Directors as they reflect the operational, financial and non-financial performance of the Saint-Gobain Group and ensure that the beneficiaries are aligned with the interests of Saint-Gobain shareholders.

The vesting of performance shares under the plan set up in November 2022 is therefore subject to the following conditions cumulatively:

- *service condition:* to be an employee or a company Director of a Saint-Gobain Group company throughout the entire duration of the vesting period, without interruption, except in a number of specific cases such as death, disability (as defined in paragraphs (2) and (3) of Article L.341-4 of the French Social Security Code), no-fault termination, negotiated departure, retirement, transfer to another position within the Group, or change of control of the grantee's host company to outside the Group;
- *performance condition* linked to the following three criteria:
  - 60% of the shares initially allocated are subject to the criteria of Return on Capital Employed, including goodwill, of the Saint-Gobain Group (ROCE),
  - 20% of the shares initially allocated are subject to a criterion linked to the performance of the Saint-Gobain stock price versus the performance of the CAC 40 stock market index, and
  - 20% of the shares initially allocated are subject to a criterion linked to Corporate Social Responsibility. This criterion, resulting from dialog with investors, comprises the following three indicators, all quantifiable and published each year as key CSR indicators: the rate of reduction of CO_2 emissions (10% of the shares initially allocated), the total recordable accident rate - more than 24 hours' lost and non-lost time (TRAR), and the senior executives diversity index (5% of the shares initially allocated to each of them).

However, the first 100 shares granted to each beneficiary other than Executive Committee members will be exempt from the performance conditions.

ROCE performance will be calculated as follows:

Arithmetic mean of the ROCE for the years 2023, 2024 and 2025	Percentage of shares initially granted, contingent upon the ROCE (i.e. 60% of grant), vested
Greater than 13.5%	All
Between 12% and 13.5%	50% + 50%*[(Arithmetic mean of ROCE for 2022, 2023 and 2024 -12%)/ (13.5%-12%)]
Equal to 12%	50%
Between 11% and 12%	50%*[(Arithmetic mean of 2022, 2023 and 2024 ROCE - 11%)/ (12%-11%)]
11% or less	None

These criteria are the same as those selected for 2021, the Board of Directors considering that, despite the Group's performances in 2022, given the worsened geopolitical and economic situation when the 2022 plan was implemented in November 2022 compared to November 2021, it did not wish to increase the limits, but that given the Group's performances in 2022, it also did not wish to reduce them. As a reminder, the reasoning behind the criteria used for 2021 to calculate performance was based, for the ROCE, on the objective announced at the Capital Markets Day on October 6, 2021, of an average annual ROCE of between 12% and 15% for the period 2021-2025. Even though the objective is reached from 12%, an ambitious criterion has been set - i.e. 13.5% - for 100% of the shares initially allocated to vest.

Despite the history of ROCE rates, which only reached 11% in 2019 (excluding the 2021 situation), it was decided to grant 0% if the arithmetic mean of ROCE for 2023, 2024 and 2025 is less than or equal to 11%. Finally, if the arithmetic mean of ROCE for 2023, 2024 and 2025 is equal to 12%, i.e. if the objective is reached within the range of 12% to 15% announced at the Capital Markets Day, it was decided to allocate only 50% at this level, with a linear progression between 11% and 12% and then between 12% and 13.5%. The 2021 plan criteria reflect the Group's performance conditions, which will only definitively allocate 50% of the shares with an ROCE of 12% - and therefore if the target is reached.

Stock price performance will be calculated by comparing the average opening listing price of the Saint-Gobain stock price and the CAC 40 index over the six months prior to November 24, 2022 to the average over the six months prior to November 24, 2026, as follows:

Share price performance	Share price performance
At least 10% greater	All
Between 0% and 10%	2/3 + 1/3*[(Performance of the Saint-Gobain share price/CAC 40 index) [a] - 100%]/[110% – 100%]
Lower than the CAC 40 index	None

[a] Saint-Gobain stock price performance/CAC 40 index performance (performance of the Saint-Gobain stock price versus performance of the CAC 40 index) is equal to: 100% + the difference between the performance of the Saint-Gobain stock price and that of the CAC 40 index, in both cases expressed as a percentage.

Performance in respect of the Corporate Social Responsibility criterion is calculated as follows:

Arithmetic mean of the Group's CO_2 emissions "scopes" 1 and 2) for the years 2023, 2024 and 2025 [a]	Percentage of shares initially granted, contingent upon the percentage reduction in CO_2 emissions (i.e. 10% of the grant), vested
Less than or equal to the target [b]	All
Above the target [b] but not by more than 5%	Linear interpolation
More than 5% above the target [b]	None

[a] *The results will be evaluated on actual production and are no longer assessed on production based on the new 2030 target validated by the Science Based Targets initiative (SBTi).*

[b] *The target corresponds to an emissions level of 9.9 million metric tons.*

Arithmetic mean of the Group's TRAR for the years 2023, 2024 and 2025 [a]	Percentage of shares initially granted, contingent upon the TRAR (i.e. 5% of grant), vested
Below 1.9	All
Between 1.9 and 2.3	Linear interpolation
Greater than 2.3	None

[a] *Total recordable accident rate—more than 24 hours' lost time and non lost time—for a million hours worked by the permanent and temporary employees and by permanent subcontractors of Saint-Gobain Group.*

Arithmetic mean of the diversity index for the years 2023, 2024 and 2025 [a] [b]	Percentage of shares initially awarded, contingent upon the diversity index (i.e. 5% of the grant), vested
Greater than 90%	All
Between 85% and 90%	Linear interpolation
Below 85%	None

[a] *index corresponding to the proportion of the Group's senior executives satisfying at least one of the three following diversity characteristics: being non-French, having diverse professional experiences (having worked at Saint-Gobain in two countries different from the country of origin or at least in three different sectors, or having an experience of more than 12 years outside the Saint-Gobain Group), being a woman (see section 4.2.2, p. 137).*

[b] *The Group set a general objective of maintaining a minimum of 90% of senior executives meeting one of the three above-mentioned criteria and a target for 2025 of 25% of its senior executives being female (see section 4.2.2, p. 137).*

The following table shows the history of the performance share plans outstanding at December 31, 2022 as well as the features of the 2018 plan, delivered in November 2022.

The performance conditions for performance shares allocated by the Group are demanding, as evidenced by the achievement rates for the latest three performance share plans for which the performance condition has been determined (94.37% [7] for the 2018 plan, 75% for the 2017 plan [8] and 57.1% for the 2016 plan). The performance condition for the 2019 plan will be determined in November 2023, since it includes, in addition to the ROCE criterion, a relative external criterion that is assessed over a four-year period ending in November 2023.

The ten Group employees and non-executive officers who were granted the highest number of shares in 2022 were allocated 182,500 performance shares (global information), valued at €45.12 per share based on the opening stock price on the day of the grant decided by the Board of Directors' meeting of November 24, 2022. These 182,500 performance shares had a total value (according to IFRS standards) at the time of grant of approximately €4,671 thousand in 2022.

TABLE 10 – HISTORICAL INFORMATION ABOUT PERFORMANCE SHARES (AMF NOMENCLATURE)

Fiscal year	2022	2021	2020	2019 [f]	2018 [f]
Date of General Shareholders' Meeting	6/2/2022	6/6/2019	6/6/2019	6/6/2019	6/2/2016
Date of Board of Directors' meeting	11/24/2022	11/25/2021	11/26/2020	11/21/2019	11/22/2018
Type of shares	existing	existing	existing	existing	existing
Total number of performance share rights initially granted (4+0)	1,232,792 [a]	1,184,475 [a]	1,268,295 [a]	1,251,770 [a]	1,219,619 [a]
of which shares granted to Executive corporate officers:					
Pierre-André de Chalendar, Chairman of the Board of Directors *	N/A	N/A	90,000	90,000	67,000
Benoit Bazin, Chief executive officer **	75,000	64,000	57,500	45,000	N/A
Total number of shares delivered	0	200 [c]	750 [c]	850 [c]	1,077,549 [b]
Number of rights forfeited	0	0	0	0	142,070 [d]
TOTAL OUTSTANDING PERFORMANCE SHARE RIGHTS	1,232,792 [e]	1,184,275 [e]	1,267,545 [e]	1,250,920 [e]	0

* *Chairman and Chief Executive Officer until June 30, 2021.*

** *Chief Executive Officer since July 1, 2021, previously Chief Operating Officer from January 1, 2019 to June 30, 2021.*

(a) *Before application of the performance conditions related to the ROCE of the Saint-Gobain Group, the Saint-Gobain share price performance and the Group's Corporate Social Responsibility (see 2018 and 2019 Reference Documents and 2020 and 2021 Universal Registration Documents and above).*

(b) *After taking into account service and performance conditions.*

(c) *By anticipation, as part of the exceptions defined in the service condition (including death, disability - see this section 5.2.4, p. 209).*

(d) *53,310 rights under the 2018 plan forfeited following partial achievement of the performance condition, 87,110 rights under the 2018 plan forfeited after consideration of the service condition and 1,650 rights of the 2018 plan cancelled in accordance with the plan rules.*

(e) *Subject to cumulative fulfillment of the service and performance conditions (see the Registration Document/Universal Registration Document relating to the year in which the plan in question was implemented).*

(f) *The performance condition related to ROCE for the year 2020 was adjusted for the 2018 and 2019 plans by decision of the Board of Directors on September 24, 2020 in order to take into account the impact of the Covid-19 pandemic crisis (see chapter 5, section 2.4.2 of the Company's 2020 universal registration document).*

(7) *The achievement rate for the 2018 performance shares plan would have been the same if the mechanism taking into account the impact of the Covid-19 crises had not been applied (see chapter 5, section 2.4.2 of the Company's 2020 Universal Registration Document).*

(8) *The achievement rate for the 2017 performance shares plan would have been 53.33% if the mechanism taking into account the impact of the Covid-19 crises had not been applied (see chapter 5, section 2.4.2 of the Company's 2020 Universal Registration Document).*

Stock option plans

The Board of Directors approved stock option plans every year between 1987 and 2018. No stock option plan was implemented in 2022.

Under these plans, each beneficiary has a conditional right to exercise a certain number of options at a set price, each option carrying entitlement to the subscription or purchase of a Saint-Gobain share.

The lifetime of the options is 10 years.

The performance criteria applicable to the stock option plans implemented since 2017 are strictly identical to those applicable to the performance share plans for the same year.

The performance conditions for performance shares allocated by the Group are demanding, as evidenced by the achievement rates for the latest three performance share option plans for which the performance condition has been determined (94.37% for the 2018 plan [9], 53.33% for the 2017 plan, and 24.5% for the 2016 plan).

Stock option plans are subject to fulfillment of a service condition that applies during the entire duration of the exercise period in a manner similar to that stipulated for performance shares (see this section 5.2.4, p. 209).

The following table shows stock options granted to the ten highest-paid non-executive employees, and options exercised by them in 2022 (global information).

TABLE 9 – STOCK OPTIONS GRANTED TO THE TEN HIGHEST-PAID NON-EXECUTIVE EMPLOYEES AND OPTIONS EXERCISED BY THEM (AMF NOMENCLATURE)

	Total options granted or subscribed or purchased shares	Weighted average price	Plans
Options granted during the year by the issuer and any company included within the scope of the options allocation, to the ten employees of the issuer or of any company within this scope with the highest number of options granted (global information)	N/A	N/A	N/A
Options on the issuer and the companies referenced above, exercised during the year by the ten employees of the issuer or of these companies with the highest number of options thus purchased or subscribed (global information)	20,324	€39.83	Plan 2017 and Plan 2018

[9] *Vesting of the stock options granted in November 2018 was subject to a service condition and a performance condition, the latter being linked to the following three criteria: (i) 65% of the shares initially granted were subject to a ROCE criterion, (ii) 20% of the shares initially granted were subject to a stock market performance criterion of the Saint-Gobain share compared with the CAC 40 and (iii) 15% of the shares granted were subject to a Corporate Social Responsibility criterion (see chapter 5 of the 2018 Registration Document, section 2.4.2). As the achievement rate of these criteria (as verified by the Statutory Auditors) was respectively 100%, 71,87% and 100%, the overall achievement rate of the performance condition of the 2018 plan was 94,37%.*

The following table shows the history of the stock option allocation plans in place at December 31, 2022. There are no other stock option plans in place or other option instruments involving the shares, whether listed or non-listed, of Group companies within or outside France.

TABLE 8 – HISTORICAL INFORMATION ABOUT STOCK OPTION PLANS (AMF NOMENCLATURE)

Fiscal year	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Date of General Meeting	6/2/2022	6/6/2019	6/6/2019	6/6/2019	6/2/2016	6/2/2016	6/2/2016	6/5/2014	6/5/2014	6/7/2012
Date of Board of Directors' meeting	N/A	N/A	N/A	N/A	11/22/2018	11/23/2017	11/24/2016	11/26/2015	11/20/2014	11/21/2013
Type*	N/A	N/A	N/A	N/A	subscription	purchase	purchase	purchase	purchase	purchase
Total number of exercisable options at the start of the Plan	N/A	N/A	N/A	N/A	290,500	284,500	280,000	224,950	234,550	247,250
Cumulative number of canceled or forfeited options	N/A	N/A	N/A	N/A	32,411 (6)	141,862 (5)	212,998 (4)	162,408 (3)	234,550 (2)	98,047 (1)
Total number of exercisable options after adjustments and forfeitures	N/A	N/A	N/A	N/A	258,089	142,638	67,002	62,542	0	149,203
of which executive corporate officers:										
Pierre-André de Chalendar, Chairman**	N/A	N/A	N/A	N/A	54,734 (7)	30,931 (7)	14,210 (7)	14,220 (7)	0 (7)	29,465 (7)
Benoit Bazin, Chief executive officer***	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Starting date of exercise period	N/A	N/A	N/A	N/A	11/22/2022	11/23/2021	11/24/2020	11/26/2019	11/20/2018	11/21/2017
Expiration date	N/A	N/A	N/A	N/A	11/21/2028	11/22/2027	11/23/2026	11/25/2025	11/19/2024	11/20/2023
Subscription or purchase price	N/A	N/A	N/A	N/A	€32.24	€49.38	€40.43	€39.47	€34.13	€38.80
Number of options exercised at 12/31/2022	N/A	N/A	N/A	N/A	11,324	20,925	23,105	25,803	0	112,496
Exercisable options outstanding at 12/31/2022	N/A	N/A	N/A	N/A	246,765	121,713	43,897	36,739	0	36,707

* *Of the plans in place at December 31, 2022, the 2018 plan is for the subscription of new shares and the 2013 to 2017 plans are purchase plans.*

** *Chairman and Chief executive officer until June 30, 2021.*

*** *Chief executive officer since July 1, 2021, previously Chief operating officer from January 1, 2019 to June 30, 2021.*

(1) *Options which cannot be exercised (i) following the partial fulfillment of performance conditions related to the relative performance of the Saint-Gobain share price to which all options granted in November 2013 were subject and (ii) due to the service condition not being met.*

(2) *Options which cannot be exercised (i) due to the performance condition related to the relative performance of the Saint-Gobain share price to which all options granted in November 2014 were subject not being met and (ii) due to the service condition not being met.*

(3) *Options which cannot be exercised (i) due to the performance condition related to the relative performance of the Saint-Gobain share price not being met and the performance condition on the relative performance of the Saint-Gobain Group's ROCE being only partially met, to which all options granted in November 2015 were subject, and (ii) due to the service condition not being met.*

(4) *Options which cannot be exercised (i) due to the performance condition related to the relative performance of the Saint-Gobain share price not being met and the performance condition on the relative performance of the Saint-Gobain Group's ROCE being only partially met, to which all options granted in November 2016 were subject, and (ii) due to the service condition not being met.*

(5) *Options which cannot be exercised (i) due to the performance condition related to the relative performance of the Saint-Gobain share price not being met, the performance condition on the relative performance of the Saint-Gobain Group's ROCE being only partially met and the performance condition related to the Group's CSR being only partially met, to which all options granted in November 2017 were subject, and (ii) due to the service condition not being met.*

(6) *Options which cannot be exercised (i) due to the partial fulfillment of performance conditions related to the relative performance of the Saint-Gobain share price, to which all options granted in November 2018 were subject, and (ii) due to the service condition not being met.*

(7) *After deducting the options granted that are not exercisable because the performance conditions were not, or only partly, met.*

Performance unit plans

The Company set up performance unit plans annually between 2012 and 2015.

No performance unit plan was set up in 2022 and at December 31, 2022, there are no longer any performance unit plans in the process of being vested.

5.3 COMPANY STOCK TRADED BY CORPORATE OFFICERS

Transactions by corporate officers involving Compagnie de Saint-Gobain shares exceeding an aggregate amount of €20,000 reported to the *Autorité des marchés financiers* (AMF) in 2022 pursuant to Article L. 621-18-2 of the French Financial and Monetary Code were the following:

	Securities	Type	Transaction date	Unit price	Total amount
Pierre-André de Chalendar *Chairman of the Board of Directors*	Units of the Saint-Gobain France FCPE (Saint-Gobain Group Savings Plan)	Subscription	5/11/2022	€45.19	€203,544
Sibylle Daunis-Opfermann *Director representing employee shareholders*	Shares	Disposal	1/12/2022	€66.02	€52,816
	Units of the Saint-Gobain France FCPE (Saint-Gobain Group Savings Plan)	Subscription	5/11/2022	€45.19	€7,358
Lina Ghotmeh *Director*	Shares	Acquisition	2/28/2022	€54.32	€43,456
Benoit Bazin *Chief Executive Officer*	Units of the Saint-Gobain France FCPE (Saint-Gobain Group Savings Plan)	Subscription	5/11/2022	€45.19	€156,544
Thierry Delaporte *Director*	Shares	Acquisition	6/8/2022	€55.42	€99,479

5.4 REPORT OF THE BOARD OF DIRECTORS ON CORPORATE GOVERNANCE (ARTICLES L. 225-37 AND SEQ. AND L. 22-10-10 AND SEQ. OF THE FRENCH COMMERCIAL CODE)

Report of the Board of Directors on corporate governance

This report on corporate governance was prepared in accordance with Articles L. 225-37 et seq. and L. 22-10-10 et seq. of the French Commercial Code under the responsibility of the Board of Directors and based on information provided by the relevant departments of Compagnie de Saint-Gobain and was approved by the Board of Directors at its meeting of February 23, 2023.

The law stipulates that this report should include a number of corporate governance items.

Compensation of the management and governing bodies (Articles L. 22-10-8 and L. 22-10-9)

As regards compensation, the report must present the draft resolutions of the Board of Directors relating to the compensation policy for the corporate officers; this policy must comply with the Company's corporate interest, contribute to its longevity and be part of its business strategy.

Furthermore, the report must include the total compensation and benefits of any kind paid or granted by Compagnie de Saint-Gobain to the Company's corporate officers during or in respect of the fiscal year, as well as commitments of any kind made by Compagnie de Saint-Gobain in favor of the executive corporate officers, such as compensation components, indemnities or benefits due or to be due as a result of taking, losing or changing office or subsequent to the performance thereof, including retirement commitments and other annuity benefits.

The report must also present changes, over the last five fiscal years, in the compensation of the executive corporate officers, the average compensation of Compagnie de Saint-Gobain's employees, the performance of the Saint-Gobain Group and the ratios between the compensation levels of the executive corporate officers of Compagnie de Saint-Gobain and the average and median compensation of its employees, on a full-time equivalent basis.

Finally, the report must contain an explanation of how total compensation complies with the compensation policy adopted, including how it contributes to the company's long-term performance, and how the performance criteria have been applied.

This information, set out in section 5.2 p. 183 and prepared on the basis of details provided by the Corporate Legal, Human Resources and Finance Departments, was reviewed by the Nomination and Remuneration Committee and is included by reference in this report.

Composition and operation of the Board of Directors (Article L. 22-10-10)

The report must include the composition of the Board of Directors and the conditions for preparing and organizing its work, as well as any limitations on the powers of the Chief Executive Officer (see section 5.1, p. 156, and section 9.1.1, p. 368).

The report must also include a list of all offices and duties held in all companies by every Compagnie de Saint-Gobain Board member during the year (see section 5.1.1, p. 156), the method for exercising General Management (see section 5.1.2, p. 171), and adherence to a corporate governance code and application of its recommendations (see section 5.1.1, p. 156).

The report must include a description of the diversity policy applied to the members of the Board of Directors, as well as a description of the objectives of that policy, its methods of implementation and the results achieved during the previous fiscal year (see section 5.1, p. 156).

This information, prepared on the basis of details provided by the Corporate Legal Department, was reviewed by the Nomination and Remuneration Committee and the Lead independent Director, and is included by reference in this report.

Other information (Articles L. 22-10-10 and L. 22-10-11)

Finally, the report must present information likely to have an impact in the event of a takeover bid (see section 7.1.9, p. 254), related-party agreements and undertakings (see section 5.5 , p. 217), a description of the procedure to properly assess whether the agreements on current transactions concluded under normal conditions meet these conditions and information on its implementation (section 5.1.1, p. 156), specific procedures for shareholders participation in the General Shareholders' Meeting (chapter 9, section 9.1.1, p. 368) and must contain a summary table of current valid delegations of authority granted by the General Shareholders' Meeting regarding capital increases showing how these delegations of authority were used during the fiscal year (see section 7.1.2, p. 249).

This information is prepared on the basis of details provided by the Corporate Legal and Financial Departments and is included by reference in this report.

The report must also include a description of how a balanced representation of women and men on the Executive Committee is sought and the gender diversity results in the 10% of the positions with the most responsibility in Compagnie de Saint-Gobain.

This information, which is listed in sections 3.2.2.C, p. 92, 4.2.2, p. 137, and 9.3.3, p. 385, and based on information submitted by the Human Resources Department, has been reviewed by the Board of Directors and is incorporated by reference into this report.

5.5 STATUTORY AUDITORS' SPECIAL REPORT ON RELATED-PARTY AGREEMENTS

This is a free translation into English of the Statutory Auditors' Report on regulated agreements and commitments that is issued in French and is provided solely for the convenience of English speaking readers. This report on regulated agreements and commitments should be read in conjunction, and construed in accordance with, French law and professional auditing standards applicable in France. It should be understood that the agreements reported on are only those provided by the French Commercial Code and that the report does not apply to those related party transactions described in IAS 24 or other equivalent accounting standards.

Annual General Meeting for the approval of the financial statements for the year ended December 31, 2022

To the annual general meeting of Compagnie de Saint-Gobain Company,

In our capacity as Statutory Auditors of Compagnie de Saint-Gobain, we hereby report to you on related party agreements.

It is our responsibility to report to you, based on the information provided to us, on the main terms and conditions of agreements that have been disclosed to us or that we may have identified as part of our engagement, as well as the reasons given as to why they are beneficial for the company, without commenting on their relevance or substance or identifying any undisclosed agreements. Under the provisions of article R.225-31 of the French commercial Code (Code de commerce), it is your responsibility to determine whether the agreements are appropriate and should be approved.

Where applicable, it is also our responsibility to provide you with the information required by article R.225-31 of the French Commercial Code (Code de commerce) in relation to the implementation during the year of agreements already approved by the Annual General Meeting.

We performed the procedures that we deemed necessary in accordance with professional standards applicable in France to such engagements.

Agreements to be submitted for the approval of the Annual General Meeting

Agreements authorized and concluded during the year

We were not informed of any agreements authorized and concluded during the year to be submitted for the approval of the Annual General Meeting in accordance with article L.225-38 of the French Commercial Code (Code de commerce).

Agreements previously approved by an Annual General Meeting

We inform you that we have not been advised of any agreements which were already approved by the Shareholders' meetings in previous years, and which were applicable during the year.

Paris-La Défense, March 10, 2023

The Statutory Auditors

KPMG S.A.		Deloitte & Associés	
Pierre-Antoine DUFFAUD	Laurent CHILLET	Frédéric GOURD	Bénédicte MARGERIN

6

RISKS AND CONTROL

6.1 RISK FACTORS

The Group conducts its business in a constantly evolving environment. It is therefore exposed to risks, the occurrence of which could have a material adverse effect on its businesses, financial position, results and outlook. This chapter presents the main risks to which the Group believes it is exposed at the date of this Universal Registration Document.

Due to the Group's multiple geographic locations, the diversity of its markets and product ranges, as well as its development, the Saint-Gobain Group is exposed to different categories of risks. In the framework of the provisions of Article 16 of Regulation (EU) 2017/1129 of the European Parliament and of the Council, the risk factors considered most important (identified with an asterisk), at the date of this Universal Registration Document, are mentioned in the first place within each of the risk categories mentioned below, in line with an evaluation that takes account of their impact and probability of occurrence. Saint-Gobain's evaluation of the significance of the risks may be modified at any time, particularly if new internal or external events occur.

The reader's attention is drawn to the fact that other risks of which the Group is not aware at the date of this Universal Registration Document, or the occurrence of which is not currently considered likely to have a material adverse effect on the Group, its businesses, financial position, results and outlook, may or might exist or arise.

6.1.1 RISKS SPECIFIC TO THE GROUP AND ITS BUSINESS SECTOR

Risks related to the economic situation*

A significant part of the Group's activities is linked to investment in the construction sector, namely the renovation markets (50% [(1)] of 2022 revenue), new residential construction (22% [(1)] of 2022 revenue) and non-residential markets (15% [(1)] of 2022 revenue) which are sensitive to the economic situation, including the effects of the current high inflation and/or the rise in interest rates in the major economies. Consequently, the Group's results are sensitive to the macroeconomic conditions of the geographic areas, both at regional and local levels, where the Group is active. Since the Group is established in 75 countries around the world (particularly in Northern Europe, Southern Europe, the Middle East, Sub-Saharan Africa, North America, Latin America and Asia-Pacific), a deterioration in the global economic environment due, for example, to a severe economic downturn or a major recession in any of these geographic areas is likely to have a negative impact on the consumption of the Group's products in the regions concerned, which could have a material adverse effect on the Group's revenues, results, free cash-flow generation and outlook.

Risks related to the Group's international activities*

The Group is active worldwide, including outside Western Europe and North America. It is present in particular in Eastern Europe, the Middle East, Africa, Asia-Pacific, and Latin America, particularly in Brazil. About 23% of the Group's consolidated revenue was generated in these regions in 2022. Generally speaking, the Group's activities in these regions carry higher risks than in Western European and North American countries, due to the existence of greater economic and political instability, as well as greater exposure to social and infrastructure disruptions than in more mature markets.

Thus, the direct and indirect consequences of political instability or of an unstable economic or regulatory environment in which the Group operates, in a country in which the Group is active or markets its products, could have a material adverse effect on investments in those countries' construction sector, and consequently on the Group's businesses, financial position, results or outlook.

In this respect, the war between Russia and Ukraine, which is a factor of economic uncertainty affecting economic activity and world trade, could have an adverse effect on the Group's activities even though the Group's economic exposure to Russia is not significant (approximately 0.7% of the Group's consolidated revenue in 2022 and about 1,800 employees, some 1,350 of whom are spread over the Group's nine factories).

In addition, while the Covid-19 pandemic appears to be less severe than in 2019 and 2020, the implementation of new restrictive measures in response to potential new waves of the pandemic could lead to further economic slowdowns in markets in which the Group operates, or affect global production chains, local supply or transport chains, or, more generally, could affect the global economy once again. This could have an adverse effect on the Group's financial position, results or outlook (see section 4.1.7, p. 133). However, most of the Group's activities are local, with products manufactured and sold locally, and largely local sourcing.

Moreover, legal or regulatory changes applicable to the Group's activities (involving, among other things, taxation, restrictions on capital transfers, customs duties, intellectual property and import and export licenses, the employment system or health, safety or the environment) could significantly increase the Group's costs in the various countries in which it is active, or limit its ability to freely transfer its capital, and consequently have a material adverse effect on its businesses, financial position, results and outlook.

(1) *Estimate of Saint-Gobain's end markets.*

Lastly, the Group operates in an uncertain geopolitical climate where trade tensions such as those that may arise from the war between Russia and Ukraine or those between China and the United States, are becoming increasingly prominent. The Group mainly operates in local markets (see section 1.4.2.A, p. 29), although some of its manufacturing activities have global value chains and could be subject to political and trade tensions, such as the automotive industry. Further deterioration of global trade relations could therefore have an adverse effect on the Group's results and outlook in these business sectors. At the date of this Universal Registration Document, the war between Russia and Ukraine has had no material adverse effect on the value chains of the Group's activities.

Risks related to innovation and the digital revolution

The Group has placed innovation at the heart of its strategy (see section 2.3.4, p. 60) in order to feed its competitiveness and maintain a high level of operational excellence and financial and non-financial performance.

Certain markets in which the Group is positioned are evolving rapidly, with the appearance of new practices, products and solutions (for instance pre-fabrication, 3D printing, light construction, digital services linked to the various phases of construction projects, optimized logistics and management of circularity), new technologies and new communication and distribution channels relying on digital tools and content (see section 2.3.3, p. 58). The success of the Group depends on its capacity to keep pace with these changes at all times and integrate these new technologies into its product offerings, in order to respond effectively to customers' needs.

Following the success, one year in advance, of the "Transform & Grow" program set up in November 2018, one of the challenges of which, in terms of innovation and digital transformation, was to optimally reconcile, on the one hand, initiatives and coordination of marketing policies and strategic innovations on a global scale, and, on the other hand, necessary local adaptations or initiatives to meet the needs of local markets and customers in the most pertinent and efficient way possible (in particular sales channels, logistics offering, etc.), the new "Grow & Impact" strategic plan announced to investors on October 6, 2021, continues to pursue these objectives and significantly strengthens the ambitions regarding the digital transformation in terms of both organization and resources. The Group's Digital & IT and Innovation entities are pooling resources to explore the potential and the possible scaling-up of the new digital technologies. The Group might not be in a position to fully implement its digital strategy, which could adversely affect its revenues, results or outlook.

The Group's innovation policy notably also comprises an ambitious marketing approach which seeks to better understand, anticipate and respond to customer requirements, working where appropriate closely with Research and Development to supply customized solutions. This policy of marketing innovation and operational excellence is based in particular on specific strategic watches. Innovation based on Research and Development requires significant investments (€520 million at December 31, 2022, i.e., 27% of the Group's total investments) as well as an appropriate recruitment and training policy, particularly in the new occupations resulting from the digital boom (digital marketing, occupations linked to the use of data, the development of digital platforms, and Industry 4.0 for example, see section 2.3.3, p. 58), the expected benefits of which cannot be guaranteed.

The Group's revenue, operating margins and results could be affected if it fails to invest or invests insufficiently in appropriate technologies related to the digital transformation, or if is unable rapidly to bring new products to market, or if seeks to market products that do not adequately address customer needs or if competing products are quickly introduced.

Intellectual property risks

The growth in the Group's activities relies on the protection of its manufacturing secrets, patents (more than 450 patents registered in 2022), brands and models, and other intellectual property rights (for a description of the Group's portfolio of patents and brands, see section 1.4.3, p. 34). If the Group were to be unable to obtain, protect and preserve its intellectual property rights, or its freedom to exploit them, this could result in the loss of its exclusive rights to use technologies and processes, which could have a material adverse effect on its results.

The Group has an active policy for the protection of its intellectual property rights but cannot rule out the risk of its products being counterfeited, the appropriation or illicit use of its intellectual property rights or an unfavorable ruling by the courts.

The Group may be forced to take legal action against third parties suspected of breaching its rights. Any such proceedings may give rise to significant costs and hamper growth in sales of the products manufactured using the rights concerned or force the Group to incur additional expenses to develop other technologies that do not use the disputed technology.

Risks related to the supply of energy and raw materials and changes in the cost of energy and raw materials

The Group's industrial activities, some of which consume high levels of energy, such as Building and Automobile Glass, Insulation or Gypsum (see section 1.4, p. 28 for a description of these activities), or are dependent on certain raw materials, could be impacted by a significant increase in prices resulting from difficulties in sourcing raw materials and/or energy (e.g., natural gas or electricity), or by the occurrence of natural disasters, extreme weather conditions, or geopolitical circumstances such as the war between Russia and Ukraine. By way of illustration, at December 31, 2022, the Group's irrevocable purchase commitments relating to raw materials and energy represented €1.8 billion (see Note 5.5.1 to the consolidated financial statements, section 8.1, p. 290). Inflation in energy and raw material costs represented about €3 billion in 2022 versus 2021.

The Group's ability to pass on these cost increases to its customers depends to a large extent on market conditions and commercial practices. Even if the Group passes them on, it may do so only in part and/or with a slippage over time. The Group's inability to immediately and/or fully pass on increases in the cost of raw materials and/or energy in the short term could have a material adverse effect on its operations, financial position or results.

The Group has set up hedging arrangements for some of the risks associated with the cost of energy and/or raw materials (see Note 10.1 Financial Risks to the consolidated financial statements, section 8.1, p. 311). Nevertheless, it cannot guarantee that these hedges, which themselves represent a cost for the Group, will fully cover any additional costs incurred as a result of future price increases in the cost of energy and/or raw materials; they will depend on the underlying assumptions regarding movements in costs applied by the Group.

Industrial and environmental risks

The Group could incur significant expenses and be exposed to environmental liabilities as a result of its operation of past, present or future industrial sites (see Note 9 to the consolidated financial statements, section 8.1, p. 307).

The industrial and environmental risks arising from the operation of some sites primarily relate to the storage of certain hazardous substances.

At December 31, 2022, eight sites were classified under Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances, known as the "Seveso III" Directive. These industrial sites are subject to specific regulations and close supervision by the competent authorities and the Group's Environment, Health and Safety Department.

These sites include Balsta (Gypsum) in Sweden, storing liquid natural gas, Etolikon (Gypsum) in Greece and Stjordal (Insulation) in Norway, storing liquefied petroleum gas, Billesholm (Insulation) in Sweden and Sully-sur-Loire (Sekurit-Transport) and Sermaises (HPS) in France, storing combustive liquids, which fall under the "lower-tier" defined by the "Seveso III" Directive. Three other facilities are classified as "upper-tier": the Bagneaux-sur-Loing site (Flat Glass) in France, which stores arsenic (AS2O3), the Carrascal del Rio site (Flat Glass) in Spain, which stores hydrofluoric acid (HF), and the Boston, Lincolnshire site (Building Distribution) in the United Kingdom, which stores petroleum products.

After identifying accident risks and their potential impact on the environment, preventive measures were implemented at these facilities, covering the design and construction of storage areas, as well as the manner in which they are operated and maintained. Internal contingency plans have been developed to respond to incidents. The financial consequences of personal injury and damage to property that may arise by accident from plant operations are covered by the current Group civil liability and environment impairment liability insurance programs (for a description of these programs, see section 6.1.5, p. 228), except for the Bagneaux-sur-Loing plant, which is operated by a joint venture and which is insured under a specific policy subscribed by such subsidiary. In the event of an industrial accident, compensation payments to victims would be organized jointly by the company, the insurance broker and the insurer.

The Saint-Gobain Group is also exposed to risks of chronic pollution, and could therefore be required to incur expenses to restore active or closed industrial sites or clean up the environment. At December 31, 2022, 69 European Group sites are classified as "IED" installations in the meaning of Directive 2010/75/EU on industrial emissions, and are subject to integrated pollution prevention and control regulations.

A breach of these regulations could result in fines or other civil, administrative or criminal penalties, specifically the withdrawal of permits and licenses needed for the activities in question to continue operation, which could have a material adverse effect on the Group's revenue, results, free cash flow generation and outlook.

Lastly, changes in environmental regulations, including their interpretation, and consideration of climate change risks (see section 3.3, p. 100) could cause the Group to incur significant expenses and/or investments.

Risks related to external growth

The Group's strategy is based, in part, on external growth, in particular by acquiring businesses or assets, taking equity interests or establishing joint ventures in the Group's business lines and in geographic regions where the Group seeks to establish or strengthen itself (see section 2.3.7, p. 68). For example on May 31, 2022, the Group announced that it had entered into an agreement to acquire Kaycan, a company that manufactures and distributes outdoor construction materials in Canada and the United States, which strengthens Saint-Gobain's status as a world leader in sustainable construction, a transaction that was definitively completed on July 29, 2022.

However, the Group may not be in a position to identify attractive targets or to enter into transactions at the optimal time and/or under satisfactory conditions (see paragraph B of section 2.3.7, p. 68 for a description of the business portfolio management strategy). The expected benefits of these external growth operations depend, in part, on the realization of expected synergies and integration of the activities of the acquired companies, and on relationships with other participants in the joint ventures. The Group gives no guarantees as to these objectives, which, if not fulfilled within the expected timeframes and at the expected levels, could affect the Group's financial position, results and outlook.

Risks related to information systems

Daily management of the Group's activities, specifically the conduct of its commercial, industrial, logistics and accounting processes, particularly in its Distribution activities, requires the proper functioning of all technical infrastructure and computer applications. The risk of system malfunction or interruption, which may be external or internal in origin (computer viruses or hacking, service provider default, blackouts or network shutdowns, natural disasters, human error, etc.), cannot be ruled out. In particular, a cyber attack could affect not only operations, but also the protection of confidential information or lead to the theft, loss or exposure of personal data.

It should be recalled that, in June 2017, the Group, along with numerous other companies and organizations in France and abroad, was affected by the NotPetya cyber-attack, which required IT systems to be disconnected in order to prevent the spread of the virus, as well as the introduction of alternative processes in all of the Saint-Gobain businesses. The impact of the cyber-attack on operating income for the 2017 fiscal year was calculated to be €80 million. All of the information systems were back up and running within ten days, without any data being lost or compromised.

With a view to learning from NotPetya and minimizing the probability and the impact of this type of malfunction, the Information Systems Department, as part of a cyber-defense plan, has introduced strict rules relating to the governance and security of information systems, both in terms of infrastructure and applications, data protection and business continuity plans. This plan was deployed at Group level, controlled by the Audit and Internal Control Department and by regular external audits (see section 5.1.2, p. 174, on the work of the Board of Directors and the Audit and Risk Committee). Since 2021, the cyber-defense plan has become the cybersecurity continuous improvement plan, and an external audit is carried out on behalf of the Audit and Risk Committee every two years. Furthermore, a new insurance program covering the Group's cyber risks has been in place and renewed annually since the end of 2017. The implementation of these various actions has made it possible to ensure that the cybersecurity incidents and cyberattacks that Saint-Gobain Group has had to deal with over the past three years have had no consequences for the Group's operations.

The occurrence of such malfunctions may adversely affect the Group's operations, the protection of its know-how and its financial results.

Risks related to climate change and the energy transition

The fight against climate change involves both risk management and the development of the Group's markets (see section 3.3.1, p. 100).

The Group has placed the fight against climate change at the heart of its strategy and aims to contribute to a fair and sustainable transition to a low-carbon economy with the adoption of a 2030 roadmap with a view to attaining its goal of contribution to carbon neutrality by 2050 and the implementation of the "Sustainable Solutions for Growth" program.

Achieving its climate objectives requires, among other things, the Group's ability to access sufficient renewable energy sources to meet its needs at satisfactory pricing conditions. The Group's failure to access such energy sources could have an adverse effect on its ability to implement its strategy and meet the expectations of its customers and investors.

In addition, the need for decarbonization of the Group's industrial customers requires an acceleration of innovation in decarbonization technologies for the construction industry, green mobility and in specialty materials for the decarbonization of industrial processes. The implementation of new industrial processes and procedures as part of the Group's sustainability roadmap represents a major technical and technological challenge. The Group's failure to deploy these new processes or procedures, or a delay in deploying them, could adversely affect its ability to implement its strategy and meet the expectations of its customers and investors.

6.1.2 GROUP STRUCTURAL RISKS

Risks linked to the Group's pension and similar commitments*

The Group recognizes significant pension and similar obligations mainly in Western Europe (in particular in France, Germany and the United Kingdom) and in North America (United States and Canada), in respect of pension plans that for the most part are no longer open to new employees. At December 31, 2022, the total amount of pension plan commitments was €8.8 billion (see Note 6.3 to the consolidated financial statements, section 8.1, p. 291).

The level of provision for Group pension plans (€1.7 billion at December 31, 2022) may be affected by adverse changes in the actuarial assumptions used to calculate the projected plan liabilities, by a reduction in the discount rates used to measure future commitments, a change in the assumed mortality rates or an increase in the inflation rates used, or a fall in the market values of plan assets, consisting mainly of equities and bonds.

Risks linked to cost reduction and restructuring

The Group constantly strives to reduce or optimize its costs. While further savings are planned, there is no guarantee that the forecast reductions will be achieved or that the costs related to possible restructuring will not exceed forecasts. In particular, certain restructuring operations and other initiatives may cost more than expected, or the cost savings may be less than expected or take longer than expected to achieve. An increase in restructuring costs and/or the Group's inability to achieve the expected savings could have a material adverse effect on the Group's results and outlook.

Risks linked to goodwill and impairment of property, plant and equipment, intangible assets and rights of use

The Group has a significant amount of intangible assets linked, on the one hand, to brands, customer relations and intellectual property, and on the other hand to goodwill (respectively €3.6 billion and €12.9 billion at December 31, 2022). In line with Group accounting policies, goodwill and certain other intangible assets with indefinite use lives are tested for impairment periodically and whenever there is an indication that their carrying amount may not be fully recoverable. Goodwill and other identified intangible assets may become impaired as a result of worse-than-expected Group performance, unfavorable market conditions, unfavorable legal or regulatory changes or many other factors. The recognition of impairment losses on goodwill could have an adverse effect on consolidated net income.

Property, plant and equipment including rights of use under leases (€14.9 billion at December 31, 2022), could also be subject to impairment in the event of adverse changes in the business (see Note 7 to the consolidated financial statements, section 8.1, p. 298).

6.1.3 FINANCIAL RISKS

The Group is exposed to financial risks, and notably a liquidity risk on financing. In particular, in a crisis environment, the Group might be unable to raise the financing or refinancing needed to cover its investment plans on the credit or capital markets, or to obtain such financing or refinancing on acceptable terms. For more information on this liquidity risk and the other financial risks to which the Group is exposed, please see Note 10.1 to the consolidated financial statements for the fiscal year ended December 31, 2022, section 8.1, p. 311.

6.1.4 LEGAL RISKS

Risks linked to legal and administrative procedures

The Group is exposed to risks of litigation and claims arising in the normal course of business. The most significant disputes pending or for which the Group has received notifications are described below. These proceedings may result in a conviction, the payment of substantial damages, regulatory or even criminal sanctions, and may tarnish the Group's reputation and thus have a significant negative impact on the Group's image, financial position and operating results. At December 31, 2022, total provisions for Group litigation amounted to €251 million (see Note 9 to the consolidated financial statements, section 8.1, p. 307).

Competition law and related proceedings*

Competition laws apply to the Group companies in countries in which it operates. Violation of competition law exposes the Group to fines and, in certain countries, potential criminal sanctions on the Group and the employees involved. Any litigation filed by a competition authority could, in the event of conviction, give rise to the payment of fines and potentially damages, which is likely to have a significant impact on the Group's reputation, financial situation and operating results.

The Saint-Gobain Group is firmly committed to opposing any practice that might violate competition rules and has long applied the principle of zero tolerance. A competition law compliance program has been in place within the Group since 2007 (see section 3.1.5, p. 86).

Investigation by the Swiss Competition Commission in the sanitary products wholesale industry

In November 2011, the Swiss Competition Commission (Commission suisse de la concurrence) opened an investigation into anti-competitive practices in the sanitary products wholesale industry. In May 2014, the Commission Secretariat issued a notice of complaints against Sanitas Troesch and other wholesalers in the industry alleging that Sanitas Troesch and some of its competitors had, among other things, agreed in 2005 and 2012 to lower gross prices.

The total fine imposed on all companies involved is CHF 80 million. For Sanitas Troesch, the fine is CHF 28.8 million. Sanitas Troesch appealed this decision on May 2, 2016 and continues to firmly refute the claims made. The hearing took place before the Federal Administrative Court on January 21, 2020 and the date on which the Federal Administrative Court will issue its decision is not yet known. However, a provision for claims and litigation was recognized at December 31, 2015 in an amount equivalent to the fine (unchanged as at December 31, 2022).

Investigation by the French Competition Authority in the building insulation products industry

Alleged anti-competitive practices in the building insulation products market were notified to Saint-Gobain Isover and Compagnie de Saint-Gobain, which rejected such allegations. The French Competition Authority considered that the alleged anti-competitive practices were not established and dismissed all the objections in January 2021. Actis appealed this decision to the Paris Court of Appeal.

On the civil law front, Actis served in March 2013 a damages claim on Saint-Gobain Isover, the Centre scientifique et technique du bâtiment, and the FILMM before the Paris Civil Court (Tribunal judiciaire de Paris) based on the facts being investigated by the Competition Authority.

At the end of 2022, Actis withdrew these two actions. Saint-Gobain Isover and Compagnie de Saint-Gobain accepted these withdrawals without reservation. The decision of the Paris Court of Appeal noting the withdrawal of Actis and the fact that the actions were removed from the Court was made on January 26, 2023. The judgment of the Paris Civil Court declaring the withdrawal of Actis and the removal of the case is expected in the first half of 2023.

Asbestos-related litigation

Current legal actions related to asbestos are described below.

Asbestos-related litigation in France

Inexcusable fault lawsuits

In France, Everite and Saint-Gobain PAM, which in the past manufactured fiber-cement products containing asbestos fibres, are the subject of actions by former employees of these companies (or persons claiming through them) for recognition of inexcusable fault following diseases recognized as being of occupational origin.

As of December 31, 2022, a total of 850 lawsuits had been issued against the two companies since the outset with the aim of obtaining supplementary compensation over and above the amounts paid by the French Social Security authorities in this respect.

As of the same date, 826 of these 850 lawsuits had been completed and 24 actions are still pending.

The total amount of compensation paid by Everite and Saint-Gobain PAM since the outset of these litigations in settlement of these lawsuits totaled approximately €9.7 million as of December 31, 2022 (compared to €6.6 million as of December 31, 2021).

In addition, similar suits had been filed against 13 French companies of the Group (excluding suits against companies that are no longer part of the Group) which in the past used equipment containing asbestos to protect their employees and installations against heat from furnaces.

As of December 31, 2022, a total of 282 lawsuits had been filed since the outset against these 13 companies. 240 of these 282 lawsuits had been completed and 42 actions were still pending at the same date.

The total amount of compensation paid since the outset of the litigations by these companies was approximately €11.8 million as of December 31, 2022 (compared to approximately €10.5 million as of December 31, 2021).

Anxiety claims

Eight of the Group's subsidiaries, including six that operate or have operated facilities in France classified as containing asbestos, were the subject of anxiety claims brought by current or former employees not suffering from an occupational disease due to asbestos – claiming compensation for prejudice of anxiety suffered as a result of their alleged exposure to asbestos.

As of December 31, 2022, a total of 861 lawsuits had been brought against these companies.

At the same date, 824 suits out of 861 have been definitely completed and 37 were still pending.

The total amount of compensation paid since the outset of the litigations was €8.5 million as of December 31, 2022 (unchanged compared to the amount as of December 31, 2021).

It should be clarified that the above figures do not take into account suits filed against companies that are no longer part of the Group.

Last, the total amount registered as provision for asbestos-related litigations in France – inexcusable faults lawsuits and anxiety claims – amounted to around €8 million as of December 31, 2022 (compared to around €7 million as of December 31, 2021).

Situation in the United States

Measures taken to achieve an equitable and permanent resolution of the former CertainTeed Corporation's legacy asbestos liabilities in the United States

DBMP LLC, an affiliate of CertainTeed LLC based in North Carolina, that holds the legacy asbestos liabilities of the former CertainTeed Corporation, filed, on January 23, 2020, a voluntary petition for relief under Chapter 11 of the US Bankruptcy Code in the US Bankruptcy Court for the Western District of North Carolina in Charlotte. The matter remains pending. The purpose of the filing is to achieve a certain, final and equitable resolution of all current and future claims arising from asbestos-containing products manufactured and sold by the former CertainTeed Corporation.

DBMP LLC intends to seek court authority to establish a trust under Section 524(g) of the US Bankruptcy Code – a specific provision that is applicable to companies that face substantial numbers of asbestos-related claims – to achieve a fair and equitable resolution of its asbestos-related liabilities. Upon establishment of the trust, current and future plaintiffs with qualifying claims will be able to receive faster payment of their claims without the delay, stress and uncertainty of litigation in the tort system; at the same time, the creation and funding of such a trust will permanently and finally resolve DBMP LLC's asbestos liability.

During the course of this bankruptcy process, which is expected to take up to approximately five to eight years, all asbestos litigation will be stayed and all related costs suspended, providing DBMP LLC with the time and protection to negotiate an agreement to be approved on behalf of all claimants and by the court.

This action was taken as a result of the increasing risks presented in the US tort system. Despite the passage of time, the aging of the population and lessening opportunity for claimants to assert legitimate claims of exposure to the asbestos-containing products of the former CertainTeed Corporation, naming practices in the tort system continued to result in a steady volume of claims against DBMP LLC, with no foreseeable end in sight. In addition, there has been, in general, an escalation of settlement demands and verdicts in the tort system.

Certain adversary proceedings have been filed by representatives of current and future asbestos plaintiffs against DBMP LLC, CertainTeed LLC, Saint-Gobain Corporation, Compagnie de Saint-Gobain and various other parties. No decisions on the merits of the claims have been made and such claims do not affect the Company's financial assessment of the Chapter 11 case.

Impact on the financial statements

Following the commencement of the proceeding under Chapter 11 of the US Bankruptcy Code on January 23, 2020, the assets and liabilities of DBMP LLC and its wholly-owned subsidiary Millwork & Panel LLC, and in particular the provision for asbestos-related litigation in the United States, are no longer consolidated in the Group's financial statements.

Nonetheless, because of a funding agreement between CertainTeed LLC and DBMP LLC by which CertainTeed LLC has agreed to fund the costs of the Chapter 11 case and, ultimately, the 524(g) trust, in both cases solely to the extent DBMP LLC is unable to do so in full, the Group recorded in its consolidated financial statements a debt against DBMP LLC amounting to $410 million as of December 31, 2022 ($417 million as of December 31, 2021).

The Group's consolidated income for 2022 is not impacted by the ongoing Chapter 11 proceeding described above.

As a result of this bankruptcy proceeding, all legal costs and indemnity payments related to DBMP LLC's asbestos tort claims have been suspended, and no further charges in relation to such claims have been taken in 2022 (as in 2021).

Situation in Brazil

In Brazil, former employees of Brasilit, that once manufactured fiber cement containing asbestos, suffering from asbestos-related occupational illnesses are offered, depending on the case, either financial compensation alone or lifetime medical assistance combined with financial compensation. Around 1,200 contractual instruments have accordingly been signed to date.

Two class actions were initiated against Brasilit in 2017 by two associations defending former employees exposed to asbestos at the São Caetano (São Paulo state) and Recife (Pernambuco state) plants, asking for their medical assistance and compensation to be revised. First and second instance decisions were rendered in connection with the suit related to the São Caetano plant respectively in July 2020 and July 2021, rejecting the claims of the plaintiffs. The latter have nevertheless appealed the second instance decision. First and second instance decisions were rendered in relation to Recife case, respectively in February and October 2022 rejecting the claiming party arguments. The plaintiff has appealed such second instance decision.

A third class action was initiated against Brasilit in 2019 in Capivari (State of São Paulo) by the Labor prosecutor asking for health insurance, as well as collective moral damages, in favor of employees, former employees and their respective families, as well as subcontractors who were exposed to asbestos. A first instance decision was rendered in September 2020 partly in favor of the plaintiffs. In particular, collective moral damages were granted to the plaintiffs, for an amount reduced to BRL 5 million (€0.8 million). Brasilit has appealed the decision.

Brasilit is subject to controls by the Ministry of Labor and continues to comply with all of its legal obligations with regard to medical assistance for its current and former employees.

In November 2017, the Supreme Court of Brazil decided to ban asbestos definitively across the country. Brasilit stopped using asbestos voluntarily as early as 2002.

Environmental disputes

PFOA proceedings in the United States

Levels of PFOA (perfluorooctanoic acid) in excess of US Environmental Protection Agency (EPA) health advisories or state maximum contaminant levels for drinking water have been found in municipal water systems and private wells near current Saint-Gobain Performance Plastics (SG PPL) facilities in Hoosick Falls (New York) and Merrimack (New Hampshire), and two former facilities in North Bennington (Vermont) in the United States. PFOA and PTFE (polytetrafluorethylene) have never been manufactured by these plants. SG PPL is a processor of PTFE which it purchases from third party suppliers and which in the past contained some PFOA.

SG PPL has voluntarily provided bottled water in all three communities, installed point-of-entry treatment systems to residents and businesses in all three communities, installed carbon filtration systems on the municipal water supply in Hoosick Falls and funded the installation of a carbon filtration system on the Merrimack Valley District's municipal water supply. In addition, it has voluntarily funded construction of water line extensions in certain communities in the Merrimack and Bennington areas. The investigations are on-going and the scope of responsibility for SG PPL arising from environmental remediation in New Hampshire and New York and clean-up obligations at these sites has not yet been established. The scope of the remediation in Vermont is defined and largely completed; future operation and maintenance obligations remain. Without admitting liability, SG PPL has signed consent orders with the environmental regulators in New York in 2016, in Vermont in 2017 and 2019 with respect to two different areas, and in New Hampshire in 2018, pursuant to which SG PPL has agreed to complete investigations, implement interim or final remediation measures at its current and former facilities and in the case of Vermont and New Hampshire, fund construction of water lines. Responsibility, if any, is expected to be shared with other parties as regards in particular the Hoosick Falls site.

PFOA-related lawsuits alleging both health-related and economic damages claims have been filed in civil courts in New York, New Hampshire and Vermont, some of which are in the form of proposed or certified class actions. It is difficult to predict the timing or outcome of any such litigation, or whether any additional litigation will be brought against SG PPL, however, both the New York and Vermont class actions are settled.

On December 31, 2022, the provision recorded by the Company in respect of this matter amounts to €201 million (compared to €116 million as of December 31, 2021). This provision covers both remediation and litigation related to PFOA matters.

Other contingent liabilities

Grenfell Tower fire in the United Kingdom

Celotex provides insulation materials for specific applications for the building and construction industry. Insulation materials from two Celotex ranges were purchased via distributors and used in refurbishing Grenfell Tower, London in 2015/2016, including as one component of the rainscreen cladding system designed and installed (by third parties) on the tower's external facade.

Following the Grenfell Tower fire on June 14, 2017, a Public Inquiry was constituted, which is considering, among other things, the modifications made to the building as part of the refurbishment, the role played by the various construction professionals, and the information provided by the manufacturers of the products used. The Inquiry has been conducting its work in two phases: its phase 1 report was published on October 30, 2019; phase 2 commenced in January 2020 and public hearings continued until July 2022, with a final report to follow, most likely in 2023. A criminal investigation into the circumstances of the fire is also in progress.

There are a large number of issues and circumstances that need to be explored and the implications for Celotex are unlikely to be known for some time. Civil proceedings in connection with Grenfell Tower brought against Celotex Limited and/or Saint-Gobain Construction Products UK Limited (which respectively held the Celotex business until or after December 31, 2015) and a number of other defendants – who are also core participants in the Public Inquiry – have been issued by bereaved, survivors and residents and emergency responders. Those proceedings have been stayed prior to the service of full pleadings on the basis that the parties to the litigation are permitted to engage in a confidential alternative dispute resolution process, which if it succeeds would avoid the need for litigation. Celotex and Saint-Gobain Construction Products UK Limited are engaging with other parties in such processes.

Celotex and Saint-Gobain Construction Products UK Limited are unable to communicate on the status of those confidential processes, which are ongoing. However, the financial statements as at 31 December 2022 include a provision covering the principal financial implications that may arise from the process engaged with bereaved, survivors and residents.

The extent to which Celotex may incur further civil or criminal liability in connection with the production, marketing, supply or use of its products is currently unclear and Celotex Limited and Saint-Gobain Construction Products UK are currently unable to make a reliable estimate of their potential liability in this respect.

Other proceedings and disputes

Some of the Group's companies may also be the subject of other claims made by their employees or by the tax authorities, or in the context of the enforcement of seller's warranties granted by the Group to the buyers of divested businesses (see in the consolidated financial statements p. 290, note 5.5.2). Apart from the proceedings and litigation described above, to the best of the Company's knowledge, no other government, court or arbitration proceedings exist (including pending proceedings or proceedings where the Company and/or the Group might be threatened) which could have or have had, in the last 12 months, a significant impact on the financial position or profitability of the Company and/or Group. Please refer to the consolidated financial statements, note 9 relating to provisions for litigation, p. 307.

Risk of regulatory changes

The Group is not subject to any specific regulations that could have an impact on its financial position, although the Group companies that operate industrial sites are generally required to comply with the specific national laws and regulations of the country where such sites are located. Such is the case for example, with regard to France, of the regulations applicable to classified sites, and certain regulations relating to the environment.

A certain number of legislative measures are already in place in certain countries and regions in which the Group operates. For example at European level, Directive 2003/87/EC of October 13, 2003, known as the "Quotas Directive", has set a cap on carbon dioxide emissions and a quota trading system for certain large production sites. Notwithstanding the Group's efforts to reduce CO_2 emissions, and more broadly, the use of best available techniques for its investments (see section 3.3, p. 100), changes in regulations applicable to the Group's activities could impact the operation of its production sites, which could have a material adverse effect on its operation, financial position or results.

Laws and regulations applicable to the Group's activities and to the materials and products that it uses in its activities may change in a manner that could be unfavorable to the Group. The introduction of stricter regulations or more diligent enforcement of existing regulations may affect the conditions under which the Group operates its businesses, which could increase its operating expenses, limit the scope of its activities or act as a brake on business growth. More generally, the Group cannot guarantee that there will be no rapid and/or significant regulatory changes in the future with a material adverse effect on its business, financial position or results.

6.1.5 INSURANCE

The Group transfers its risks to the insurance market when this is the most efficient solution. Default by one or more of the Group's insurers could therefore lead to financial losses.

The Group's policy is to implement preventive programs and purchase insurance coverage to protect its assets and revenue. This policy is embedded within a Group doctrine, which takes into account current conditions in the insurance market. It is determined, coordinated and overseen by the Risk and Insurance Department. It defines insurance criteria for the most significant risks, such as property and business interruption, as well as general and product liability. With this in mind, a new insurance program to cover the Group's cyber risks was implemented at the end of 2017.

For other types of coverage, such as automobile fleet insurance, the Risk and Insurance Department advises the individual operating units on policy content broker selection and which market to consult. These are called "high-frequency" risks, for which claims are monitored internally and appropriate action taken. The policies in force in 2022 are the result of the renewal of the policies for 2021.

The captive insurance company set up to cover property risks was highly successful and delivered real benefits for the Group.

Companies acquired during the year have been integrated into existing insurance programs.

Property and business interruption insurance

The risks covered are non-excluded property and casualty risks as well as operating losses following a sudden accident affecting the insured property. They are covered by a global program.

The programs meet the insurance criteria laid down by the Risk and Insurance Department, specifically:

- all policies are "all risks except";
- limits on compatible coverage with worst-case scenarios where safety systems operate effectively;
- deductibles are proportionate to the size of the site concerned and cannot be considered as self-insurance.

These criteria take into account current insurance offerings, which exclude certain risks and cover natural disasters such as floods, storms, earthquakes or tsunamis only up to a certain amount.

In extreme scenarios, such events could have a substantial uninsured financial impact in terms of both reconstruction costs and lost production costs.

The Risk and Insurance Department's policy is based on the findings of the annual audits carried out by independent prevention experts recognized by the Group's insurers. These audits give a clear picture of the risk exposure of the main sites in the event of a fire or other incident, and provide an estimate of the financial consequences in a worst-case scenario.

The transfer of risk to the insurance market takes place beyond €17.5 million per claimable event for all Group entities as from January 1, 2022.

This amount is self-insured by the Group through its captive insurance company. The latter has taken out reinsurance protection to protect it against an excessive frequency and/or severity.

Coverage of the risk of civil liability

A program provides coverage for third-party personal injury and property damage claims for which the Group would be legally held liable. This program comprises several programs for the lower tranches of coverage.

The first program covers all subsidiaries and has a coverage limit of €100 million. Those located in North America are subject to a deductible of US$50 million. The program's exclusions are consistent with market practice and concern in particular potentially carcinogenic substances and gradual pollution.

In order to satisfy local regulatory requirements, a policy is taken out in each country in which the Group has a significant presence. Local policies are backed up by the master policy issued in Paris, which can be activated when local coverage proves inadequate.

The second program, with a cover limit of US$50 million, concerns the subsidiaries located in North America. This program is structured differently to deal with the specific nature of liability risks in the United States. It is divided into several lines of coverage, requiring it to be placed, if needed, on the London insurance market. Exclusions are in line with current market practice in the United States and primarily concern contractual liability, pollution and third-party consequential loss.

In addition to the two programs described above, a number of supplementary programs have been set up in order to bring the total coverage limit to a level considered compatible with the Group's businesses.

Within the operating units, action is taken to raise awareness of civil liability risks, and the units are motivated to control costs by assuming a deductible that does not, however, constitute self-insurance. The Group also runs a risk prevention program at its operating units with the support of the Environment, Health and Safety Department.

Furthermore, to meet the environmental requirements set out in Directive 2004/35/EC of April 21, 2004 on environmental liability with regard to the prevention and remedying of environmental damage, the Group has since 2017 had a specific policy with a limit currently set at €75 million per year. This policy offers worldwide cover, excluding the United States, for the Group's civil environmental liability arising in relation to damage affecting natural resources (protected natural species and habitats, soil and water) as a result of its activities.

Exceptions

Joint ventures not controlled by the Group and minority interests are excluded from the scope of the above policies. These insurance policies are taken out separately.

6.2 INTERNAL CONTROL

Each of the Group's companies evaluates the main risks affecting the shaping of its strategy, the smooth running of its operations, compliance with laws and regulations and resilience to external events.

Thus the general aims of internal control are:

- management of the company's operational risks;
- quality of execution of processes and reliability of financial information;
- compliance, in accordance with the Group's programs, particularly on competition law, laws on economic sanctions, controls on exports, the fight against corruption and influence peddling (in accordance with the recommendations of AFA, the French Anti-corruption Agency);
- anti-fraud.

Each level of the organization plays a role in internal control, and risk management, which affect all Group employees. The three lines of defense model is therefore adopted by Saint-Gobain:

- In the first line of defense, companies employ an internal control and risk management system tailored to their situation, at the initiative of the Chief Executive Officers and local managerial structures (Regions, countries and activities). The companies have access to Shared Services Centers (Finance, Human Resources – Payroll) and IT expertise. It is essential that there is a segregation of tasks between these organizations for successful skills optimization and transaction security;
- In the second line, Group Internal Control establishes an internal control reference framework applicable to all, in addition to specific guidelines prepared by the Group's corporate departments; and
- The third line involves verification of the proper application of the internal control principles which is carried out in-house by the Audit Department and externally by the Statutory Auditors.

6.2.1 COMPAGNIE DE SAINT-GOBAIN'S INTERNAL CONTROL AND RISK MANAGEMENT SYSTEM

The aims of internal control and risk management

The Saint-Gobain internal control and risk management system is part of the legal framework applicable to companies listed on the Euronext Paris regulated market, and is inspired by the reference framework on the internal control and risk management system of the AMF (French Financial Markets Authority) and the "Committee of Sponsoring Organizations of the Treadway Commission" (COSO).

Saint-Gobain Group's internal control and risk management system is supported by a continuous improvement process and an Internal Control Reference Framework. This is a whole set of resources, behaviors, procedures and actions tailored to each company's specific characteristics which:

- enables it to appropriately address material operational, financial or compliance risks;
- helps it to manage its operations and meet its objectives;
- improves the efficiency of its operations and ensure that its resources are used to best effect.

It is more specifically designed to provide assurance concerning:

- application of General Management's instructions and orientations;
- compliance with the laws and regulations applicable to the company;
- the efficiency and effectiveness of internal operating, industrial, marketing, financial and other processes;
- of property, plant and equipment and intangible assets, in particular the prevention of fraud;
- the reliability of financial information.

By promoting constant improvement in all entities, internal control creates value and supports the companies' performance.

The internal control and risk management environment

The Group's core values

Internal control is based on values and rules of conduct which are formalized in:

- the Saint-Gobain Group Principles of Conduct and Action: professional commitment, respect for others, integrity, loyalty, solidarity, compliance with the law, respect for the environment, protection of health and safety at work and employee rights (cf. section 1.2.2, p. 14). The Principles of Conduct and Action are distributed to all Group employees; the Group's Human Rights policy (cf. section 3.2.1 , p.89);
- the Saint-Gobain Attitudes: being close to customers, acting as an entrepreneur, innovating, being flexible, building an open and engaging culture;
- the Group's compliance program: competition law, economic sanctions and export control, anti-corruption, influence peddling and fraud, professional associations, conflicts of interest, gift policy, etc. (cf. section 6.2.5, p. 241).

Executives leading by example, and control at all levels in implementing the Principles is essential in disseminating these values, which all Group employees must adhere to.

The organizational model

The implementation of an internal control system requires:

- appropriate organization which provides a framework for the planning, execution, monitoring and management of operations;
- clearly defined roles and responsibilities, according to a human resources management policy which recruits people with the knowledge and skills necessary to perform their jobs, providing them with training to develop employees' knowledge;
- rotation and succession plans for key positions and replacement solutions during temporary absences;
- powers of attorney granted to suitable people in line with the principle of task segregation.

Dissemination of policies and programs

The policies and programs devised by the Group's Senior Management are disseminated within each corporate department. The Regions, countries and activities formalize guidelines and directives within their scope of responsibility in line with the Group's own guidelines and directives, ensuring that they are applied when conducting operations.

Information systems

The Group's organizations and their operations rely to a large extent on information systems, information-sharing and the digitalization of processes. Information systems must therefore be efficiently protected in terms of both physical and logical security. The Saint-Gobain Group companies thus comply with the security rules set out by the Group Information Systems Department and Internal Control (automated controls described in detail in the "ITAC" reference base).

Internal control and risk management process

Within Saint-Gobain, internal control is a continuous and ongoing process that integrates risk management procedures.

Due to the constantly changing environment and the regulatory context, the companies must take steps to identify, evaluate, process and monitor any risks which may affect them.

At Group entity level

The internal control and risk management process can be summarized in four stages:

- analysis of the main identifiable risks. The company analyzes its main risks, and thus identifies what could prevent it from meeting its objectives, as well as dangers that could harm its interests or have a major impact on its internal control situation;
- developing controls that are proportionate to the risks involved in each process;
- communicating the objectives of internal control to employees and implementing controls;
- permanent oversight of and regular checks on the effectiveness of internal control: a compliance statement is signed each year by the Chief Executive Officers according to the scope defined for each annual campaign.

This process is described in the Internal Control Reference Framework (cf. section 6.2.5, p. 241) and applies to the entire Group.

At the level of Compagnie de Saint-Gobain

The Audit, Risks and Internal Control Department updates the Group's risk mapping every year. These updates draw on the contributions of the various management levels, and the results are submitted to the Audit and Risk Committee and the Board of Directors.

For the various risks analyzed, the necessary corrective action is taken.

6.2.2 PARTIES INVOLVED IN INTERNAL CONTROL AND RISK MANAGEMENT

Everyone within the organization has some responsibility for internal control and risk management, from General Management down to the employees of the individual entities.

The Board of Directors of Compagnie de Saint-Gobain and the Audit and Risk Committee

The Audit and Risk Committee periodically reviews the organization of the Group's internal control and risk management (cf. section 5.1.2, p.171).

The Audit and Risk Committee is specifically tasked with monitoring the process of preparing financial information and the effectiveness of the internal control and risk management system.

It also reviews the risks map prepared by the Audit, Risks and Internal Control Department.

It analyzes significant internal control incidents, results of audits and oversees the corrective actions necessary to address failures.

Finally, it reports regularly to the Board of Directors on its work and notifies the Board promptly of any issues encountered (cf. section 5.1.2, p.171).

Group Management

Saint-Gobain's Management oversees implementation of the Group's internal control and risk management process and the existence and effectiveness of appropriate internal control monitoring systems within the Group's subsidiaries.

In this context, the Chairman of the Board of Directors signed a charter on April 16, 2021 with the Audit, Risks and Internal Control Department to reiterate the principles of audit, internal control and risk management which support the Group's teams.

Audit, Risks and Internal Control Department

The general remit of the Audit, Risks and Internal Control Department is to provide systematic, methodical assurance that the internal control systems are relevant and effective, and to make recommendations for reinforcing them. It also promotes the pursuit of added value and enhanced performance, in line with the Group's focus areas and programs (notably in anticipation of the digitalization of company processes).

Therefore, the Audit, Risks and Internal Control Department is involved in the Group's compliance program and is primarily responsible for the following:

- designing the Group's internal control and risk management system;
- coordinating the implementation of this system, in liaison with the company's corporate departments and operational management structures. To do this, the Audit, Risks and Internal Control Department particularly relies on internal control/risk reference frameworks and the issuing and checking of the compliance statements signed by the general managers for the applicable management levels;
- carrying out audits in line with the audit plan approved by the Audit and Risk Committee.

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The Saint-Gobain Group Internal Audit Department applies the international standards of the profession as described in the Professional Internal Auditing Standards (RPAI), 2020 version, and thus complies with the Core Principles for the Professional Practice of Internal Auditing (CRIPP) of the Institute of Internal Auditors (IIA). The Group's Audit Department was certified in 2020 by the IFACI, the French branch of the IIA.

At the end of 2022, the Audit, Risks and Internal Control Department had 76 staff, split between audit, internal control and risk management.

Audit, Risks and Internal Control Department	Main responsibilities	Reference standards and/or measures	2022 key figures
Internal control	• Draw up and maintain the Internal Control Reference Frameworks in line with the Group's risk priorities • Lead the annual compliance statement process • Analyze incidents, self-assessments and audit results to suggest changes • Monitor the implementation of the action plans decided upon as a result of these exercises • Communicate and train in internal control	• Internal Control Reference Framework Standard (ICRF) • Internal Control Reference Framework for Information systems (ITAC) • Internal Control Reference Framework for companies with annual revenues below €20 million (ICRF MINI) • Internal Control Quality Reference Framework (ICQRF) • Anti-corruption internal control framework (ACRF) • Associated practical data sheets or Group memos • Internal control, risk management and audit training academy (IABC Academy), part of the "Saint-Gobain University" training program accessible from the "Boost!" e-learning platform • Certification of internal control as part of the Academy of Training (IABC Academy) • "MY ICRF" mobile app available for all employees • Internal Control Briefs Library of Best Practices • Webinars and training sessions by region/country (Business Control Forums [1]) • Intranet and digital internal control community on "Yammer" ("My ICRM") • Integrated Audit/Internal Control/Risks tool: "INTERACT" [2] and Analysis tool: "TABLEAU" Software [3]	• 1,598 action plans open in the "INTERACT" database at the end of 2022 • 2022 compliance statement campaign including the self-assessment of 216 scopes and 35 super-validations (cf. section 6.2.4, p.239) • Over 1,500 executives and managers trained at 8 Internal Control and Risk Management Forums (Morocco, South Africa, India, Latin America, Asia Pacific and North America) • 20 webinars bringing together more than 3,500 participants • 23 newsletters published • 187 publications on the Yammer community "My ICRM" • 203 best practices including 32 in 2022 • Network of 128 internal control officers • 7 regional meetings/HPS of internal control correspondents (168 participants) • 29 discussion meetings with the Functional Divisions • 65 one-to-one meetings were held with Internal Control correspondents within the Group • Digital Internal Control Community with 2,007 members • IABC training academy containing 54 internal control and risk modules and two audit familiarization modules. As of December 31, 2022, Group employees had taken 18,694 modules and 1,471 modules were in progress • 54 candidates received for internal control certification in 2022
Risk management	• Define and maintain the Group's risk universe • Update risk mapping at the different Group levels • Produce and maintain the risk management methodology • Analyze responses to risks and the action plans for the different risks • Communicate and train in risk management	• Risks universe • Risk mapping • Methodological risk analysis tool for Group companies • "AVANTEAM" risk mapping tool, containing the risk database • Management of action plans in the "INTERACT" tool • Intranet and digital risk management community on "Yammer" ("My ICRM") • Annual "Risk Perspective" publication	• 51 maps updated in 2022 • "AVANTEAM" risk database including 584 active risks in 2022 • "INTERACT" tool including 48 risk action plans • Updated risks universe with 13 main categories and 76 sub-categories

Audit, Risks and Internal Control Department	Main responsibilities	Reference standards and/or measures	2022 key figures
Internal Audit	• Conduct audits and monitor the implementation of the mandatory controls required by the Internal Control Reference Frameworks • Check the consistency of compliance statements • Carry out cross-cutting studies on the operational benefit for the Group • Identify and share best practices	• Audit plan • Audit methodology • Specific "Essential Controls" anti-fraud methodology • Best practices library • "TABLEAU" data analysis tool • "CELONIS" process analysis tool • Management of action plans in the "INTERACT" tool • Internal control, risk management and audit training academy ("IABC Academy"), part of the "Saint-Gobain University" training program accessible from the "Boost!" e-learning platform • Auditor training Program	• Entities audited every 3 to 5 years depending on company size • 160 audit missions, 10 special missions to review executive expense reports and 30 intrusion tests conducted • IABC training academy containing 33 audit methodology modules, access to which is restricted to Group auditors. As of December 31, 2022, the Group's auditors had completed 1,865 modules and 223 modules were in progress • 14 candidates received for internal audit certification in 2022 (corresponding to 18% of audit staff) • Training week organized in January 2022 for all auditors, representing 42 hours of training • Training program for newcomers (Induction) organized in March, May, and September 2022, representing 2 days of training for the auditors concerned • Methodological training cycle, i.e. 9 thematic sessions scheduled for 2022 for all auditors • Data analysis training cycle, i.e. 7 sessions dedicated to the use of Celonis software scheduled for 2022 for all auditors • 191 publications on the Yammer community "My IABC"

(1) *The Business Control Forums are local training sessions delivered over one or two days for executives and managers. The topics such as the fundamentals of internal control and the fight against fraud, audit results and compliance statements, as well as case studies on various processes.*

(2) *Integrated audit and internal control tool used for the management of compliance statements, action plans and audits.*

(3) *Intelligent data analysis and reporting tool.*

Corporate departments

Compagnie de Saint-Gobain's Corporate Directors are responsible for setting up an internal control structure and defining internal control strategies and procedures in their area.

They assist the Audit, Risks and Internal Control Department in leading and conducting the internal control process in their area, notably:

- identify and analyze the main risks associated with their internal processes;
- define effective and relevant controls formalized in the Internal Control Reference Framework;
- inform and train the employees responsible for internal controls within their area;
- analyze any internal control weaknesses or incidents and the results of internal audits.

The Corporate Directors are also responsible for the internal control system within the Company entities, notably to establish the Group's procedures.

Corporate departments	Main responsibilities	Reference standards and/or measures	2022 key figures
Environment, Health and Safety (EHS) Department and Medical Department	• Promote and coordinate Group EHS policy • Monitor the application of EHS reference framework principles	• EHS reference framework and standards • ISO 45001, ISO 14001 and ISO 50001 standards • EHS Saint-Gobain audits • ISO certification audits	• Industry audits: - 33 "ISA" audits (1) - 31 "ISA-MINI" audits • Distribution audits: - 200 "ESPR" audits (2)
Information Systems Department	• Develop the Group's Digital and IT Strategy in line with the Group Strategy • Leading the Group's Digital Transformation • Define Group policy for information systems and computer network security • Promote and coordinate an annual self-assessment plan • Control the implementation of rules and best practices	• Minimum security rules • Technical standards • Development standard for secure web applications • Note on the Cloud • Datacenter security rules and public Cloud security rules • ITAC reference bases • SAP users control tool • SAP systems security monitoring and checking tool (SAP4SG) • Industrial Systems Security Framework	• See General doctrine on information systems security (cf. section 6.2.5, p.241)
Purchasing Department	• Manage the World Class Purchasing program, an approach focused on purchasing performance, department professionalization, the internal customers department, and supplier innovation with a view to creating a competitive advantage for Saint-Gobain • Exploit all centralized multi-business and multi-country purchasing synergies • Coordinate the purchasing function • Develop the culture of Responsible purchasing, in line with the Group's commitments • Execute the Digital transformation of the Purchasing function, in collaboration with the countries and businesses	• ISO 9001 standard with certification in Raw Materials, Precious Metals and Energy for Saint-Gobain Purchasing • Purchasing Process within the Internal Control Reference Framework	• Completion of nearly 8,281 individual actions by buyers in 2022 • 4 specific local purchasing internal audits • 8 buy techs (3) were carried out in 6 countries. One of which was carried out in a digital format

Corporate departments	Main responsibilities	Reference standards and/or measures	2022 key figures
Risk and Insurance Department	• Define Group policy for property damage at industrial or distribution sites • Define Group policy for insurance and monitoring its implementation • Steering centralized insurance programs	• Prevention/protection reference base • "Risks Grading" self-assessment tool • Doctrine memos • Risks and Insurance Intranet	• 393 site visits by prevention engineers including 47 visits specific to flood risks and 12 dedicated to checking the Continuity Plans • 1,296 sites that have performed their Risk Grading self-assessment • 782 point-of-sale evaluations, including 77 in self-assessments. It should be noted that 158 are linked to the catch-up of the delay made in previous years due to Covid-19 • 13 prevention/PCA training sessions • Regular plant inspections
Treasury and Financing Department	• Define policy for financing, market risk control and banking relationships for the entire Group	• Procedural reference base – for DTF activities – for subsidiary activities • Daily reports (DTF) and monthly reports (subsidiaries and DTF)	• 160,596 internal/external foreign exchange transactions in 2022 • 35,516 internal/external transfers issued in 2022
Financial Control Department	• Implement continuous control of the Group's results and operating performance • Participate in drawing up the budget and periodic budget reviews • Oversee monthly results figures at all levels of the organization • Closely analyze and validate the financial consequences of investment, acquisition, divestment, merger and capital expenditure plans and restructurings • Develop a vision and implement the (digital) transformation programs of the Finance function within the Group	• Dashboards • Permanent relationship with the Regions/HPS • Oversight of the network of Group controllers • Implementation of common analysis tools • Group reference base and opinion of the corporate departments	• More than 150 meetings per year with the Regions/HPS • 15 training modules (1 in-person module + 14 distancing modules); 81 new online e-learning modules • 184 company Authorization Applications • 54 acquisition projects, of which 26 were finalized (22 closed + 6 signed) • 19 divestments (of which one not closed) • 10 mergers completed
Accounting Standards and Pension Liabilities Department	• Manage, update and distribute all financial, administrative and management procedures applicable to the Group's companies • Coordination and review of the valuation of the Group's pension obligations • Monitoring of IFRS 16 Lease contracts • Coordination of the financial portion of the Universal Registration Document • Coordination of the integration of new auditors in the different regions and monitoring of their fees	• Group organization and procedures • Financial and accounting standards (IFRS) • Group intranet and Yammer page.	• 903 documents available on the Accounting Standards intranet • 738 questions addressed via the hotline • 1,148 employees subscribed to the news from the Accounting Standards Department and 1,331 to specific disclosures relating to IFRS16

Corporate departments	Main responsibilities	Reference standards and/or measures	2022 key figures

Legal and Ethics and Compliance Department	• Identify the main legal and ethics and compliance risks
	• Define and implement an ethics and compliance program aimed at preventing breaches of the Code of Ethics, the Group's commitments, and the law in the areas of competition law, anti-corruption, influence peddling and money laundering, economic sanctions and export control, the duty of vigilance and human rights, and personal data protection
	• Advise operational staff, via the network of Heads of Ethics and Compliance, on matters falling within the scope of the ethics and compliance program
	• Perform controls to verify the application of the rules of the ethics and compliance program
		• Group policies and procedures in relevant matters
		• "SpeakUp! by Saint-Gobain" Whistleblowing Line
		• Digital register of gifts and invitations, conflicts of interest, and other items sensitive to the risk of corruption
		• Coordination of a network specializing in ethics and compliance
		• Employee training related to legislation in force and Group policy adopted on the subject (online and in person trainings)
		• Third-party screening tool and Wiki country page on economic sanctions and export control
		• Questions on the compliance statement on compliance-related topics
		• Dedicated audits (Compliance Essentials) focusing on ethics and compliance issues
			• Policies and procedures: translated into thirty languages on average
			• Training
			  • Online:
			  – At the end of 2022, 95.8% of new managers, and 97.9% of all managers, had completed the "Adhere" online training course on the Principles of Conduct and Action
			  – At the end of 2022, 98.2% of new managers, and 98.6% of all managers, had completed the "ACT" anti-corruption training course online
			  – At the end of 2022, 98% of new managers, and 98.5% of all managers, had completed the "Comply" antitrust law training course online
			  • Face-to-face/Hybrid/Teams: in 2022, 3,500 employees received training on one or more ethics and compliance topics
			• Ethics and Compliance Communications in 2022:
			  • 6 Ethics and compliance newsletters
			  • 3 articles published in Skyline on ethics and compliance
			• Audits carried out in 2022:
			  • 6 by the Ethics and Compliance Department
			  • 6 by the Internal Audit Department

Corporate departments	Main responsibilities	Reference standards and/or measures	2022 key figures
Group Security and Anti-Fraud Department and French Security Department	• Protection of people: – Ensure the safety of travelers and expatriates – Country and site safety audits • Safety of Assets: – Develop anti-fraud policies – Ensure fraud prevention – Investigate fraud incidents – Formulation of recommendations on the physical safety of the Group's sites • Security of sensitive information: – Ensure the protection of information relating to national defense secrets – Ensure the protection of information relating to R&D	• Group travel policy • Group safety policy • Security awareness-raising • Fraud incident reports • Safety Officer function • Audit of sensitive sites • Security watch • Mapping of safety risks at industrial and distribution sites in France • Travel abroad to conduct investigations • Monitoring of business travelers and expatriates	• At December 31, 2022, 29,675 international trips (PNR) were recorded • 7 sites audited • 1 SGBDF fraud prevention mission • Number of cases of fraud received: 84 – 16 cases from the Group Alert System – 68 cases reported by management or reported following control operations

(1) *Audits according to a grid in 13 sections, covering the requirements of international ISO 14001 standards: 2015 and ISO 45001: 2018 and additional internal requirements for the Group's industrial activities.*

(2) *ESPR (Environment, Safety and Prevention of Risks) audit: specific to the Building Distribution.*

(3) *Buy-Tech: Workshop that brings together purchasers and technicians with the aim of improving their cooperation, optimizing local purchases, promote best practices in terms of defining specifications and using the TCO (Total Cost of Ownership) tool and guarantee the best use of framework, national or regional contracts.*

Operational departments

The Heads of the Regions, countries, Business Units and companies' CEOs are crucial in rolling out the internal control and risk management system in the Group; their main roles include:

- analyzing major risks faced by the companies;
- carrying out appropriate controls based on the Internal Control Reference Framework;
- gradually implementing the Group's programs;
- making self-assessments on the internal control system, in the form of an annual compliance statement, for the applicable management levels, that includes a letter of commitment confirming the Chief Executive Officer's personal commitment regarding the fairness and accuracy of the self-assessment;
- active, constructive and transparent involvement in the various assessment exercises: internal, specialized and external audits.

6.2.3 THE INTERNAL CONTROL AND RISK MANAGEMENT SYSTEM IN THE GROUP ENTITIES

Each entity is responsible for implementing an internal control and risk management system that is appropriate to its needs and aligned with the Group's internal control and risk management system. Each Managing Director is responsible for:

- the relevance and effectiveness of the internal control system in place within their entity;
- its compliance with the Group's internal control system;
- appropriate management of the risks faced by their entity.

This responsibility cannot be delegated. Management exercises this by relying on the company's functional Directors, operational staff and the site Directors.

To build an internal control system adapted to their activity, the Chief Executive Officers of the companies aim to:

- establish the fundamental bases for internal control and risk management, and in particular the controls described in the Internal Control Reference Framework;
- adapt the internal control and risk management system by analyzing specific risks and enhancing the internal control system to include checks tailored to the management of identified risks;
- roll out the internal control and risk management system on all of the sites;
- oversee the internal control and risk management system.

6.2.4 THE PROCEDURE FOR MONITORING THE INTERNAL CONTROL AND RISK MANAGEMENT SYSTEM

The Audit, Risks and Internal Control Department monitors the internal control and risk management systems using four main factors:

- compliance statement;
- internal audits;
- action plan monitoring;
- monitoring of fraud and incidents.

The results of this oversight are reported to the Audit and Risk Committee.

The compliance statement

The Managing Directors, for the applicable management levels, report to the Group's General Management on their levels of internal control via an annual compliance statement.

The form includes a certain number of key checks extracted from the Internal Control Reference Framework.

The Managing Director must provide assurances that:

- the controls selected are implemented in a compliant and efficient manner;
- the action plans arising from the self-assessment have been activated and implemented within the given time frames;
- significant internal control incidents, fraud and breaches of the Principles of Conduct and Action were reported to the Audit, Risks and Internal Control Department or via the Group whistle-blowing system.

The Managing Directors make a personal commitment to the accuracy of the self-assessment by signing a letter of commitment at the end of the form.

At the second level, the Directors of Clusters, Regions and HPS validate all compliance statements belonging to their respective scopes.

The compliance statements and the action plans are gathered, summarized and monitored by the Audit, Risks and Internal Control Department. They are covered in an annual report to the Group's Management team and the Audit and Risk Committee.

Internal audits

Internal audits are centralized at Compagnie de Saint-Gobain level. The Vice-President of Audit, Risks and Internal Control reports to the Chairman of the Board of Directors. Internal auditors located at the Group's headquarters or in the countries report directly to the Audit, Risks and Internal Control Department and work under its authority.

The audits are scheduled based on long-term, pre-determined criteria, in line with a yearly audit plan which is designed taking into account the requirements of the company's General Management, corporate departments and operational departments. The audit plan prepared by the Audit, Risks and Internal Control Department is approved by the Audit and Risk Committee.

The aim of the audits is to evaluate the relevance and effectiveness of the internal control systems of the Group and its subsidiaries and to carry out cross-business missions with an operational benefit. Generally, they include an examination of the internal control environment, risk analysis system, internal control organization and procedures and information systems of one or more processes.

1 2 3 4 5 6 7 8 9

The auditors use IT tools provided to them to analyze the data systematically (data analytics) and share the results operationally with the entities:

- a performance-oriented tool for process analysis that can be used to analyze and represent an entity's organizational structure and its processes, to identify bottlenecks and irregularities in process flows;
- a compliance-oriented data analysis tool that is useful in targeted searches for inconsistencies with the internal control rules in place.

These two highly complementary tools thoroughly analyze the populations concerned (transactions, master files, access rights, etc.), so that anomalies can be detected and the most reliable conclusions reached.

At the end of the work, the internal auditors design a priority action plan in conjunction with the entity which should improve the coverage of the risks identified; they also produce a report setting out their main observations and recommendations. The report is then sent to the Group's General Management and the operational department to which the entity reports.

2022 was also marked by the Covid-19 health crisis, which disrupted the normal course of business.

Action plan monitoring

The "INTERACT" integrated audit and internal control tool centralizes:

- actions taken to correct the non-compliance identified during the annual compliance statement campaign;
- the priority action plans defined following the audits carried out;
- the main actions defined as part of the annual risk mapping campaign.

The INTERACT tool also enables entities to trigger action plans independently, as part of a dynamic management of their internal control.

This means that each Group company has access to a centralized operational platform it can use to manage its action plans by reporting the corrective measures taken and the progress made compared with the predefined implementation schedule. The corporate departments can also use the system to monitor these action plans.

Furthermore, a dashboard circulated at the Group's different management levels makes it possible to monitor the results of the compliance statements, internal audit grades and the progress of the related action plans.

Monitoring of fraud and internal control incidents

Fraud and other major internal control incidents are closely monitored by the Audit and Risk Committee.

Facts to be reported to the Group

- Accounting anomalies and alterations which damage the integrity of the financial information, irrespective of whether they are favorable or unfavorable to the entity or the Group;
- Misappropriation or jeopardizing of assets, whether tangible or intangible;
- Events likely to be construed as acts of passive or active corruption, or influence peddling;
- Violations of laws and regulations;
- Other violations of the Principles of Conduct and Action.

Alert procedure

Fraud alert procedure

The Group's Fraud Officer ensures monitoring by applying a single, centralized procedure which all of the Group's subsidiaries must follow. The facts are reported using a standard form available on the Security Intranet under the fraud section, which describes the facts and the measures taken. The declaration is updated by the entity as necessary. These declarations are then communicated by the Fraud Officer to the relevant management bodies.

Group whistle-blowing system

The Group's internal whistle-blowing system makes it possible to collect reports from any employee concerning conduct or situations which are contrary to the Group's Principles of Conduct and Action and the Group's Anti-Corruption policy, offenses or crimes or serious and obvious violations of laws or regulations (for details, see the Saint-Gobain Group Alert System policy). The internal whistle-blowing system is accessible at the following address: https://www.bkms-system.com/saint-gobain/fr.

When the eligibility conditions for the report are met, the reported facts are investigated in a professional and independent manner and the investigations coordinated by duly trained alert examiners.

Whistle-blower protection system

The whistle-blower is protected under the terms of the Whistle-blowing policy.

6.2.5 GUIDELINES AND PROCEDURES

Compagnie de Saint-Gobain has developed internal control and risk management procedures for its own needs and those of its subsidiaries.

Internal control guidelines

In 2022, the internal control reference framework library is as follows:

ICRF

MINI ICRF

ITAC

ICQRF

ACRF

There are three main manuals:

- **ICRF**: Internal Control Reference Framework, in its standard format, applicable to companies with annual revenues in excess of €20 million and the support units (Finance, HR/Payroll and SGTS Shared Services Centers, IT Expertise Centers, R&D Centers);
- **MINI ICRF**: Internal Control Reference Framework applicable to companies with annual revenues of less than €20 million;
- **ITAC**: Internal Control Reference Framework applicable to all of the Group's business applications and ERP.

ICRF

Section 1 of the Internal Control Reference Framework highlights the role of each person in the perpetuation of the internal control and risk management system within the context of "Transform & Grow".

Section 2 of the Internal Control Reference Framework presents the Group's risk universe. Each ICRF control is referenced against the relevant risk sub-categories. Each process contains a control/risk matrix used to refer specifically to risk types by control and contributing to understanding the control system.

Section 3 of the Internal Control Reference Framework presents the list of mandatory controls to be implemented by all Group subsidiaries (250 controls in the 2022 version).

The Mini ICRF

This framework has the same structure as the standard ICRF with 17 chapters. It sets out 100 controls, which have been carefully selected and developed for small entities. The Mini ICRF also presents a practical tool for the consolidation of newly acquired companies.

ITACs

The Automated Control Reference Framework (ITAC) supplements the Group's Internal Control Reference Framework (ICRF) and lists the controls that are wholly or partially automatable, the implementation of which is mandatory. The Group companies are responsible for the implementation of this reference framework in the business applications within their scope (e.g. SAP) in order to guarantee the perpetuation of the control, limit its recurring costs and minimize the risk of human error or fraud.

In the 2022 edition of the ITAC standard, which covers eight processes, there are 97 controls listed. They are divided into three categories: automated process, automated workflow approval and automated reporting (R).

There are also two thematic manuals.

ICQRF

The ICQRF (Internal Control Quality Reference Framework) manual deals with internal control applied to quality.

ACRF

The ACRF (Anti-corruption Reference Framework) manual summarizes the internal controls related to the fight against corruption and influence peddling.

All of the reference frameworks are available on the Audit, Risks and Internal Control Intranet.

Other tools are also available on the Intranet site to help entities implement the controls (tool box: typical procedures, flow diagrams, library of controls) and best practices.

The best practices are compiled by:

- the Internal Audit Department – auditors gather best practices during their audit missions;
- the Internal Control Department, using a system of external monitoring (notably the French Audit and Internal Control Institute, IFACI);
- entities that agree to share their tools.

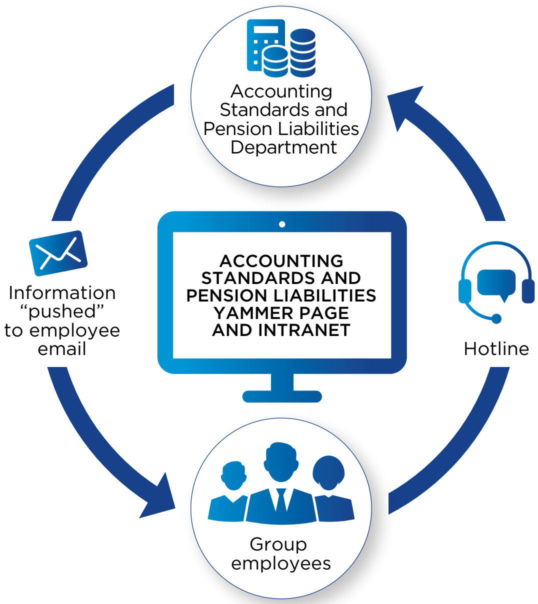
The Accounting Standards and Pension Liabilities Department

The Accounting Standards and Pension Liabilities Department presents all financial, administrative and management procedures applicable to Group companies.

These procedures, accessible via the Group Intranet, are based on two main themes:

- Group organization and procedures;
- financial and accounting standards.

It is also in charge of coordinating the calculation of the Group's pension provisions and ensures the detailed review of commitments and other related long-term benefits for employees of French companies in conjunction with actuaries.



It has also been responsible for the monitoring of "IFRS 16" leases using a global database of all of the Group's leases (about 41,000 contracts).

It is also in charge of coordinating the integration of auditors in the various regions as well as monitoring their fees.

The activities of the Accounting Standards and Pension Liabilities Department are the subject of a report sent to the Audit and Risk Committee of the Board of Directors in February.

The Environment, Industrial Health and Safety (EHS) standard, associated standards and implementation guides

The standard describes the EHS management system to be put in place to achieve the EHS objectives and achieve an autonomous and interdependent EHS culture. It is based on the principle of continuous improvement. It takes into account:

- international management standards in the three areas of EHS: ISO 45001: 2018 for health and safety and ISO 14001: 2015 for the environment;
- the specific requirements of Saint-Gobain, in particular the Group's EHS standards.

A new version of the EHS standard was published in 2020 and made available in 2021. It is based on the conviction that the implementation of an effective EHS management system in the branches is a necessary condition for the long-term improvement of their EHS performance.

The implementation of the requirements of the EHS standard is assessed through EHS audits: ESPR audit on the Distribution and ISA (Integrated System Assessment) scope launched in 2018 for the industrial scope. An audit system more suitable for institutions whose management system is not ISO-certified, called the ISA-MINI audit, was developed in 2020 and gradually rolled out since 2021. A new version of the ISA audit was developed and tested in 2022 to take into account the evolution of the EHS database in 2021, and will be launched in 2023. The reflection on the EHS Saint-Gobain audits at the Distribution sites was conducted in 2022, leading to the launch of a new audit tool for distribution sites in 2023.

Each country is in charge of defining its multi-year audit program according to the prioritization criteria proposed by the central EHS team. The objective is to target sites and entities that need audit recommendations to progress. The number of EHS audits in the field increased again in 2022, after being significantly reduced in 2020 and 2021 due to the Covid-19 crisis.

Furthermore, the EHS Department continues to work with its network to develop and update Group EHS standards, which describe the minimum applicable requirements and/or methodologies. These standards help to ensure that risks are assessed and controlled on the same basis in all Group entities, irrespective of the country and the local laws and regulations (see chapter 3). Among the documents made available to the sites for the implementation of standards, there are implementation guides, examples of procedures, training kits, questionnaires for assessing the implementation of standards and IT tools. Every year and as needed, certain documents and tools are updated or added. In 2020, an appendix concerning the Work Permit was added to the "Health and Safety Risk Assessment and Control" standard. A new version of the "Work-Related Road Risks" standard has been made available, as have updated versions for the guides for the implementation of "Work Permits", "Working Alone" and "Safety Management Audit Tool (SMAT) visits". A standard on the assessment of environmental risks was disseminated with a guide, and training sessions were conducted. Two guides on risk management in the event of "isolated work" and when resuming activity to help sites manage the pandemic were also made available. In 2021, the guide on controlling risks linked to "dangerous energies" (commissioning/de-commissioning) was updated and a guide was created to be referred to during construction projects. This update work continued in 2022 with the provision of a new standard on "machine safety" and "forklifts and other rolling gear". A new communication campaign on "the minute of reflection" was launched. And has been initiated a new video training format in particular to focus on the priority to be given to managing potentially serious events: the first three modules relate to "SIPs (Serious Injury Potential", "SMAT (Safety Management Audit Tool)" and "LOTO (Lock Out Tag Out)".

Finally, the training matrix listing mandatory and recommended EHS training for each function has been updated.

All of these implementation guides give examples of best practices on how to implement the minimum requirements and can also be used as training materials, thus facilitating the work and increasing the efficiency of the EHS networks of the various countries and businesses.

General doctrine on information systems security

The Information Systems Department compiles security rules and policies concerning the information systems and networks, based on four sets of compulsory minimum security rules in the following areas:

- infrastructure, with 23 minimum security rules (31 control points, 94 entities) and IT Security Reporting (34 control points, 17 IT covering 776 entities);
- applications and websites, with the 25 minimum security rules (50 control points);
- industrial information technology systems, with at least 28 security rules (68 control points, 891 entities, including 189 with critical or large industrial IT systems);
- Research and Development Centers, with at least 7 security rules (13 control points, 16 R&D centers);
- the hosting of resources in the Datacenters or Cloud solutions operated by partners led by the Group DSI or IT (99 control points, 17 Datacenters/private Cloud solutions, 33 Cloud Public security rules, one Cloud Public Azure solution).

These rules are the operational application by area of another two key high-level documents in the new IT security document reference system:

- the General IT Security policy letter, ensuring the importance of this issue and its sponsorship by top management;
- the Group Information Systems Security policy, an essential repository;
- the reference framework for short and medium-term actions to strengthen Saint-Gobain's cyber-defense against new cyber-attacks. This framework is implemented in a continuous cybersecurity improvement plan adapted to each Business organization and Group teams. This plan covers global infrastructure, local infrastructure, applications and websites, and industrial systems.

These rules are also supplemented downstream by periodically updated technical standards to monitor technological developments and control application, industrial and infrastructure services.

The Information Systems Department has notably defined and rolled out:

- a tool (GRC, Governance Risk and Compliance) for controlling SAP user rights and managing conflicting segregations of duties. This tool will be gradually integrated into all the Group's SAP systems;
- a technical standard (SAP4SG) to improve the security of SAP environments. A tool is being rolled out across 47 SAP environments hosted by GDI in the Kyndryl (P1) Datacenter to monitor and check the points covered by this standard:
  - a technical standard (SAP4SG) to improve the security of SAP environments. A tool is being rolled out across 47 SAP environments hosted by GDI in the Kyndryl (P1) Datacenter to monitor and check the points covered by this standard:
  - implementing security patches in SAP production and non-production environments,
  - the technical configuration of the environments to improve security,
- the monitoring of technical roles, profiles and accounts, as well as high privilege accounts;
- a technical standard to manage technical and business accounts that access to applications (ATA/ABA, Application Technical Accounts/Application Business Accounts);
- a Web Application Secured Development (3.2) standard (WASD);
- a technical standard to Secure the Hosting of Internet Applications (SHIA);
- a technical standard for SaaS systems which defines responsibilities and security measures for implementation;
- a series of security rules for the annual security control of the central and regional datacenters (Datacenter Security Rules 4 SG) and the Public Cloud Security Rules;
- a technical standard for the security of applications hosted by Saint-Gobain partners for publication on the internet;
- the methodology for the assessment of Cybersecurity risks used to assess the measures to be implemented to integrate security into all projects from the first stage, and into contracts with suppliers.

In addition, an ITAC (Information Technology Automated Controls) repository has been published since 2012 and is updated regularly. It is a complement to the Internal Control Reference Framework that describes the automatic or semi-automatic IT controls of key purchasing, sales, inventory, production, human resources, treasury and accounting processes. It is valid for all Group ERPs (SAP, Movex, QAD, Exact).

Industrial and distribution risk prevention manual

The Group's policy for prevention of property damage and the resulting operating losses, compiled as part of an internal collection of standards and best practices, is defined by the Risk and Insurance Department. The Risk and Insurance Department coordinates the implementation of the policy by the Group's operational entities in its different businesses.

Within the business and regional entities, Prevention Coordinators manage the application of Group policy within the scope of their activities.

At site level, those in charge of Prevention Management perform an annual self-assessment of risks at their sites using a risk rating software package. This tool assesses risks as well as the corresponding levels of protection and prevention. This self-assessment is updated annually by the industrial sites, the Research and Development Centers and logistical sites. A special assessment is carried out for the points of sale.

Furthermore, regular inspections of the Group's most important sites are carried out by prevention engineers, who are auditors external to the Group (approximately 350 inspections and -400 remote meetings per year). The sites update their action plans with a view to improving their level of prevention and protection based on recommendations prepared by these prevention engineers.

Tools of the Group's compliance culture

The culture of compliance that drives the Group has developed through its values, which are formally stated in the Principles of Conduct and Action.

The ethics and compliance program is strongly focused on the prevention and detection of risks and is now structured around the following main themes: the promotion and defense of the Principles of Culture and Action; the fight against corruption and influence peddling; the prevention of money laundering; compliance with the rules on competition law, economic sanctions and export control; monitoring of the vigilance plan and respect for human rights; and personal data protection.

The tools used in implementing the program include:

- a dedicated intranet, called Compliance, on which key messages are posted and tools made available;
- online training modules such as Adhere (Principles of Conduct and Action), ACT (preventing corruption), Comply (competition law), and SGU – Economic Sanctions and Export Control – Saint-Gobain Embargoes (rules relating to economic sanctions and embargoes, for persons concerned);
- in-person, hybrid or team training;
- the dissemination and implementation of internal policies such as:
  - the policy on the alert system in place at the Saint-Gobain Group,
  - the anti-corruption policy and its procedures, particularly relating to gifts and invitations, conflicts of interest, or sponsorship and patronage operations,
  - the Group policy on management of the corruption risk by Human Resources,
  - sales agents and intermediaries policy,
  - the "buyer" and "supplier" charters,
  - policy on economic sanctions and control of exports,
  - membership in professional associations policy;
- distribution of practical and technical guides:
  - the Thread of Competition,
  - 20 best practices in competition law for purchasers,
  - good human rights practices (child labor, forced labor, worker housing, recruitment agencies and security forces),
  - the Lexia video on the alert system;
- frequent dissemination of messages by the Chief Executive Officer, the Corporate Secretary and the Chief Executive Officers of the regions, countries and activities of the Saint-Gobain Group, via the Skyline publication or other forums;
- a network of compliance and ethics managers present locally and covering, within their respective scopes, all the matters concerned.

6.2.6 ORGANIZATION OF INTERNAL CONTROL IN PREPARING AND PROCESSING FINANCIAL AND ACCOUNTING INFORMATION TO THE SHAREHOLDERS

Compagnie de Saint-Gobain individual (parent company) financial statements

The Accounting Department is responsible for producing financial information for shareholders, partners and other third parties in accordance with French legal requirements. This information is prepared using the standards and principles in force. These are generally accepted principles such as the going concern principle, the principles of consistent application of accounting policies, alignment of the opening balance sheet with the prior-period closing balance sheet, recognition of expenses in the same period as the income to which they relate, segregation of accounting periods and substance over form.

Accounting organization

The accounting organization is based on the rules, methods and procedures set out in the Group's doctrine memos. It enables the monthly reconciliation and substantiation of the accounts and the true and fair view of the events which are represented. The organization also has an advisory role and works upstream to anticipate the accounting impacts of events and the regulatory changes that are likely to have a material impact on the Company's financial statements.

The chart of accounts is aligned with the Company's needs in terms of classification of transactions, and complies with the materiality principle. It is linked to the Group's Financial Information system.

Internal control

On the one hand, internal control is based on periodic assessments of the process for preparing accounting and financial information.

In addition to controlling compliance with payment authorization procedures and the double signature rule for secure payment means, the Accounting Department contributes to internal control by acting as guarantor in respect of responsibilities defined by General Management and formalized through a cost accounting system organized by cost center. Specifically, cost center managers receive monthly schedules listing the expenses incurred under their signature, allowing them to check these expenses and also to compare actual and year-to-date expenses with the initial budget.

A summary of these cost accounting reports is sent to the Finance Department and the Group's General Management at the end of each month.

On the other hand, measures are implemented to strengthen the arrangements for managing accounting risks and contributing to the reliability of the financial statements.

For this purpose, since 2016, Group units have been subject to a Balance Sheet Review (BSR) procedure under the direction of the Group Financial Control Department, to increase the level of accounting control by the Finance Department of each entity.

The Group's consolidated financial statements

The consolidated financial statements are prepared by the Group Consolidation and Reporting Department. The department is also responsible for updating consolidation procedures, training, and integrating the subsidiaries into the consolidation process, processing information, and utilizing, maintaining and developing consolidation systems and the Financial Reporting System for the Group and for regions and HPS.

Group standards

The Consolidation Department provides information and periodic training for the subsidiaries in conjunction with the Regions and HPS. To do so, it has a consolidation manual, several entry aid guides, an intranet site and an online training tool in French and English. New consolidation instructions are issued for each monthly closing, describing the changes compared with the previous period-end and enhancements to reporting systems, standards and procedures, in collaboration with the Group's Accounting Standards and Pension Liabilities Department.

Each year, the Consolidation Department offers training sessions.

Processing information and control of the financial statements

Each subsidiary submits its accounts in accordance with the timetable set by the Company. They are processed and controlled by the Consolidation Department and by each Region and HPS. The Consolidation Department reviews the Group's financial statements as a whole and makes the necessary adjustments to prepare the consolidated financial statements. These consolidated accounts are submitted to General Management every month.

The consolidated financial statements are then examined by the Statutory Auditors in accordance with professional Auditing Standards.

Consolidation tools

The consolidated financial statements are prepared using consolidation software equipped with a powerful, efficient and highly secure database aligned with the Group's structure. The software is regularly updated to guarantee the financial information system's sustainability. A tightly controlled access procedure has also been put in place to ensure that the overall system is secure, and a comprehensive access review is performed once a year.

This tool manages a common database that contains the data of all of the Group's consolidated entities.

It feeds data into a secure reporting system accessible on the Group's Intranet, for the Group's General Management and the Region and HPS Management, contributing to the internal control of information output.

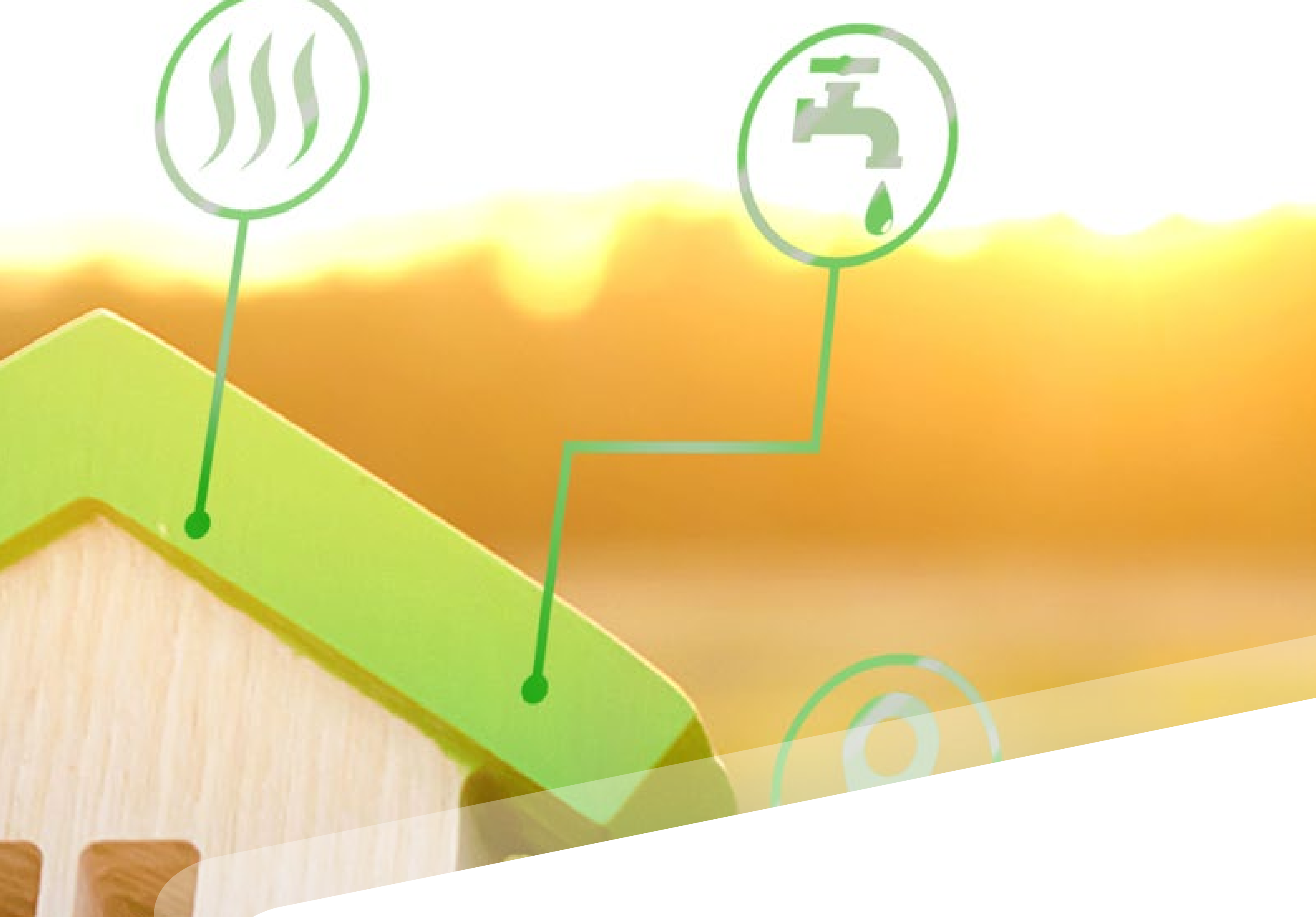
Account reliability through the reporting process

The monthly reporting process ensures that the annual and interim consolidated financial statements are reliable. Hard closes are performed at May 31 and October 31, to reduce the workload at June 30 and December 31. These two closes are thoroughly reviewed in accordance with the same principles as the annual and interim financial statements. At this time, the main financial managers from the Company and Regions analyze in detail the net income and the hard close balance sheet. The entities' accounts are then analyzed before the final closing dates and are reviewed by the Statutory Auditors. This procedure helps to ensure early detection of any errors and their adjustment during the actual close.

A consolidated report is prepared each month for the Company's General Management, with supporting comments and analyses of material events over the period.

7

CAPITAL AND OWNERSHIP STRUCTURE



7.1 CAPITAL STOCK

7.1.1 SHARE CAPITAL

Share capital at December 31, 2022

At December 31, 2022, the share capital of Compagnie de Saint-Gobain amounted to €2,063,076,328 divided into 515,769,082 common shares (compared with 524,017,595 shares at December 31, 2021) each with a par value of €4.00 fully paid up and all of the same category.

At December 31, 2022, the Company had issued no shares not representing its share capital and had issued no securities giving access to its share capital other than stock options and performance shares (see section 5.2.4, p. 209).

Changes in share capital over the last three fiscal years

Since December 31, 2019, Saint-Gobain's share capital has changed as follows:

Date	Type of transaction	Share capital after transaction *(in EUR)*	Number of shares after transaction
12/2022	Issuance of 12,476 shares upon exercise of the same number of subscription options	€2,063,076,328	515,769,082
10/2022	Capital reduction: cancelation of 4,305,432 shares	€2,063,026,424	515,756,606
06/2022	Capital reduction: cancelation of 8,871,654 shares	€2,080,248,152	520,062,038
05/2022	Group Savings Plan: issue of 4,916,097 shares (at €45.19)	€2,115,734,768	528,933,692
12/2021	Issuance of 2,962 shares upon exercise of the same number of subscription options	€2,096,070,380	524,017,595
11/2021	Capital reduction: cancelation of 8,543,174 shares	€2,096,058,532	524,014,633
06/2021	Capital reduction: cancelation of 5,700,000 shares	€2,130,231,228	532,557,807
05/2021	Group Savings Plan: issue of 5,562,855 shares (at €35.81)	€2,153,031,228	538,257,807
05/2021	Issuance of 11,239 shares upon exercise of the same number of subscription options	€2,130,779,808	532,694,952
11/2020	Capital reduction: cancelation of 3,000,000 shares	€2,130,734,852	532,683,713
11/2020	Capital reduction: cancelation of 9,000,000 shares	€2,142,734,852	535,683,713
10/2020	Issuance of 266 shares upon exercise of the same number of subscription options	€2,178,734,852	544,683,713
08/2020	Group Savings Plan: issue of 6,099,996 shares (at €23.03)	€2,178,733,788	544,683,447
08/2020	Capital reduction: cancelation of 6,100,000 shares	€2,154,333,804	538,583,451

Liens, guarantees and pledges

At December 31, 2022, to the best of the Company's knowledge, there were no significant liens, guarantees or pledges applying to Saint-Gobain shares.

7.1.2 FINANCIAL AUTHORIZATIONS CURRENTLY IN FORCE

The following table shows the status of delegations of authority and authorizations granted to the Board of Directors by the General Shareholders' Meetings of June 3, 2021 and June 2, 2022 and the use made of these delegations during the 2022 fiscal year.

Purpose of the resolution and securities concerned	Source (resolution number)	Authorization duration and expiration	Maximum par value of the capital increase
ISSUANCES WITH PREFERENTIAL SUBSCRIPTION RIGHT			
Capital increase (common shares or securities giving access to shares in the Company or its subsidiaries) (A)	2021 AGM 18th resolution	26 months (August 2023)	€426 million, excluding adjustments, i.e. approximately 20% of the share capital [1] (A) + (B) + (C) + (D) + (E) + (I) being limited to €426 million (the "**Global Cap**") [2]
Capital increase by incorporation of premiums, reserves, profits and free allocation of shares to shareholders (B)	2021 AGM 23rd resolution	26 months (August 2023)	€106 million, excluding adjustments, i.e. approximately 5% of the share capital Included in the Global Cap [2]
ISSUANCES WITHOUT PREFERENTIAL SUBSCRIPTION RIGHT			
Capital increase, through a public offering, other than those referred to in Article L. 411-2 of the French Monetary and Financial Code, with the option of granting a priority period for shareholders, by issuing common shares or securities giving access to the share capital of the Company or subsidiaries, or shares of the Company to which securities to be issued by subsidiaries would grant entitlement (C)	2021 AGM 19th resolution	26 months (August 2023)	€213 million (shares), excluding any possible adjustments, i.e. approximately 10% of the share capital [1] Included in the Global Cap (C) + (D) + (E) + (I) being limited to €213 million [2]
Capital increase, through a public offering referred to in paragraph 1 of Article L. 411-2 of the French Monetary and Financial Code, by issuing common shares or securities giving access to the share capital of the Company or subsidiaries, or shares of the Company to which securities to be issued by subsidiaries would grant entitlement (D)	2021 AGM 20th resolution	26 months (August 2023)	€213 million (shares), excluding any possible adjustments, i.e. approximately 10% of the share capital [1] Allocation to the cap of (C), included in the Global Cap [2]
Capital increase (common shares or securities giving access to shares in the Company shares with shares as primary securities) in compensation for contributions in kind (E)	2021 AGM 22nd resolution	26 months (August 2023)	10% of the share capital, i.e. approximately €213 million excluding any possible adjustments Allocation to the cap of (C), included in the Global Cap [2]
ISSUANCES RESERVED TO GROUP EMPLOYEES AND CORPORATE OFFICERS			
Capital increase (equity securities) through the Group Savings Plan (F)	2021 AGM 25th resolution	26 months (August 2023)	€52 million, excluding any possible adjustments, i.e. approximately 2.4% of the share capital [3]
Allocation of options to buy or subscribe shares (G)	2022 AGM 17th resolution	38 months (August 2025)	1.5% of the share capital on the date of the 2022 AGM, i.e. approximately €31.5 million with a sub-cap of 10% of this limit of 1.5% for executive corporate officers [2] (G) + (H) being limited to 1.5% of the share capital
Free allocation of existing shares (H)	2022 AGM 18th resolution	38 months (August 2025)	1.2% of the share capital on the date of the 2022 AGM, i.e. approximately €25 million with a sub-cap of 10% of this limit of 1.2% for executive corporate officers [4] Allocation to the cap of (G)

Purpose of the resolution and securities concerned	Source (resolution number)	Authorization duration and expiration	Maximum par value of the capital increase
OTHER			
Option for complementary issuance in case of oversubscription of an issuance of common shares or securities giving access to the share capital with or without preferential subscription right (I)	2021 AGM 21st resolution	26 months (August 2023)	For each issuance, legal limit of 15% of the initial issuance [(1)] Allocation to the cap of (C) and/or included in the Global Cap depending on the initial issuance [(2)]
Determination of the issue price in the event of a capital increase without preferential subscription right through a public offer made pursuant to the 19th or 20th resolutions of the 2021 AGM (J)	2021 AGM 24th resolution	26 months (August 2023)	10% of the share capital per 12-month period [(1)] Issuances completed pursuant to (C) or (D) depending on the type of capital increase Allocation to the cap of (C), included in the Global Cap [(2)]
SHARE BUYBACK PROGRAM			
Share buyback [(5)]	2022 AGM 16th resolution	18 months (December 2023)	10% of the total number of shares composing the share capital at the AGM date [(6)] Maximum purchase price per share: €100
Cancellation of shares	2021 AGM 26th resolution	26 months (August 2023)	10% of the share capital per 24-month period [(7)]

(1) *Maximum nominal amount of debt securities giving access to the share capital that may be issued capped at €1.5 billion. Global cap applicable to resolutions (A), (C), (D) and (I).*

(2) *No use made of the delegation of authority in 2022.*

(3) *Recognition of the subscription of 4,916,097 shares in May 2022 by the Chief Executive Officer having received a delegation of authority from the Board of Directors on November 25, 2021 on the basis of the 25th resolution of the General Shareholders' Meeting of June 3, 2021 to implement a capital increase through the Group Savings Plan.*

(4) *Free allocation of 1,232,792 existing performance shares by the Board of Directors on November 24, 2022.*

(5) *The objectives of the program are as follows: cancellation, delivery of shares upon exercise of the rights attached to securities giving access in any way to the allocation of shares in the Company or in the context of external growth, merger, demerger and contribution transactions, market animation under a liquidity agreement, allocation of free shares, granting of stock options, or sale of shares as part of a Company Savings Plan or other similar schemes, hedging against the potential dilutive impact of free share allocations, the granting of stock options and employee share subscriptions under the Company Savings Plan or other similar schemes, the implementation of any market practice that may become authorized by the French Financial Markets Authority (Autorité des marchés financiers – AMF) and, more generally, for any other transaction authorized under the relevant laws and regulations.*

(6) *See section 7.1.3, p. 251, for a description of the implementation of the share buyback program in 2022.*

(7) *Cancellation of (i) 8,871,654 shares resulting in a reduction of the share capital by a nominal amount of €35,486,616, decided by the Board of Directors on June 2, 2022, effective June 10, 2022, and (ii) 4,305,432 shares resulting in a reduction of the share capital by a nominal amount of €17,221,728, decided by the Board of Directors on September 29, 2022, effective October 4, 2022 (see section 7.1.3, p. 251).*

7.1.3 SAINT-GOBAIN TREASURY SHARES AND ACQUISITION OF OWN SHARES

Treasury shares and own shares

At December 31, 2022, Compagnie de Saint-Gobain directly held a total of 3,745,751 treasury shares, i.e., 0.73% of its share capital, each with a par value of €4.00, acquired at an average purchase price of €48.54. The gross book value of treasury shares at December 31, 2022 was €181,810,498. At that date, it was not holding any treasury shares indirectly.

The following table shows, at December 31, 2022, the allocation of treasury shares held directly by Compagnie de Saint-Gobain for purposes of the program authorized by the General Shareholders' Meeting of June 2, 2022:

Purpose	Number of shares and percentage of share capital	Average purchase price *(in EUR)*	Gross book value *(in EUR)*
Coverage of performance share plans and other allocations to employees (including stock options for existing shares)	1,951,306 shares (0.38% of the share capital)	€51.59	€100,660,463
Cancellation	1,764,695 shares (0.34% of the share capital)	€45.22	€79,792,177
Liquidity agreement	29,750 shares (0.01% of share capital	€45.64	€1,357,858

During the 2022 fiscal year, 1,076,098 treasury shares were re-allocated as part of existing performance share plans and 16,501 treasury shares were re-allocated as part of stock option plans.

Pursuant to decisions of the Board of Directors, 8,871,654 shares were canceled on June 10, 2022 and 4,305,432 shares were canceled on October 4, 2022. These share cancelations resulted in share capital reductions of nominal amounts of €35,486,616 and €17,221,728 respectively.

Information on transactions involving treasury shares during the 2022 fiscal year (excluding liquidity agreement)

In 2022, as part of the authorizations granted by the General Shareholders' Meetings of June 3, 2021 and June 2, 2022 to the Board of Directors, the Company purchased, excluding the liquidity agreement, 15,924,715 shares, at an average price of €50.21, and did not sell any of its treasury shares. Total trading expenses, fees and taxes incurred by the Company in 2022 in connection with all transactions on its treasury shares amounted to €2,832,478.

It made no use of derivative products in connection with these transactions. Further, the Company was holding no open purchase or sale positions at December 31, 2022.

Liquidity agreement

In November 2007, Compagnie de Saint-Gobain entered into a liquidity agreement with Exane BNP Paribas in accordance with the code of ethics issued by the *Association française des marchés financiers* (AMAFI).

To comply with current regulations (particularly AMF decision No. 2018-01 of July 2, 2018 establishing liquidity agreements on equity securities as an accepted market practice), Compagnie de Saint-Gobain entered into a new liquidity agreement with Exane BNP Paribas on June 20, 2019, with retroactive effect from January 1, 2019, which replaces the previous one.

The purpose of this contract is to mandate the liquidity provider to maintain a liquid market in Compagnie de Saint-Gobain shares and ensure that prices are regularly quoted for the shares, so as to avoid price fluctuations not justified by market trends.

The resources provided by Compagnie de Saint-Gobain under this contract entered into in June 2019 and applied to the credit of the liquidity account amounted to €4,002,006.22 and to 21,000 Compagnie de Saint-Gobain shares (compared to €5 million under the previous contract). At December 31, 2022, the liquidity account held 29,750 shares and had a credit balance of €5.6 million.

During the 2022 fiscal year, cumulative purchases under the liquidity agreement involved 2,086,990 shares at an average price of €49 while 2,081,717 shares were sold at an average price of €49.12. No shares allocated to the liquidity agreement were reallocated to another purpose of the share buyback program in 2022.

7.1.4 MAJOR SHAREHOLDERS

At December 31, 2022, the share capital of Compagnie de Saint-Gobain amounted to €2,063,076,328, divided into 515,769,082 common shares, to which 569,245,288 theoretical voting rights were attached.

The following table presents, to the best of the Company's knowledge, changes in the distribution of the Company's share capital and voting rights over the last three years.

	Dec. 31, 2022			Dec. 31, 2021			Dec. 31, 2020		
	Number of shares	% of share capital (1)	% of voting rights (2)	Number of shares	% of share capital (1)	% of voting rights (2)	Number of shares	% of share capital (1)	% of voting rights (2)
Group Savings Plans Fund	45,131,274	8.75	15.23	43,253,088	8.30	14.90	48,557,060	9.10	15.40
BlackRock, Inc	31,029,009 (3)	6.02	5.49	30,760,840 (5)	5.87	5.33	26,342,042 (7)	4.90	4.50
Caisse des Dépôts et Consignations	22,181,586 (4)	4.30	5.19	18,950,947 (6)	3.62	4.53	21,806,475 (8)	4.10	4.90
Treasury shares	3,745,751	0.73	0.00	2,085,448	0.40	0.00	1,988,969	0.40	0.00
Other shareholders (9)	413,681,462	80.21	74.09	428,967,272	81.86	75.25	433,989,167	81.50	75.20
TOTAL		**100**	**100**		**100**	**100**		**100**	**100**

(1) *The percentages of share capital are calculated with reference to the total number of shares forming the Company's share capital, including treasury shares. See section 5.2.4, p. 209, for details of stock options not yet exercised and performance shares allocated. At December 31, 2022, the maximum percentage of dilution was 0.05%.*

(2) *The percentages of voting rights are calculated with reference to the number of voting rights exercisable at General Shareholders' Meetings. Since 1987, registered shares in the name of the same shareholder for at least two years have benefited from a double voting right. For further information, see section 9.1.1,A, p. 368.*

(3) *To the best of the Company's knowledge, based on the statement of crossing of statutory threshold prepared by BlackRock, Inc. dated December 30, 2022.*

(4) *To the best of the Company's knowledge, based on the statement of crossing of statutory threshold prepared by Caisse des Dépôts et Consignations dated December 14, 2022 indicating its direct and indirect ownership through CNP Assurances, which it controls.*

(5) *To the best of the Company's knowledge, based on the statement of crossing of statutory threshold prepared by BlackRock, Inc. dated October 12, 2021.*

(6) *To the best of the Company's knowledge, based on the statement of crossing of statutory threshold prepared by Caisse des Dépôts et Consignations dated December 21, 2021 indicating its direct and indirect ownership through CNP Assurances, which it controls.*

(7) *To the best of the Company's knowledge, based on the statement of crossing of threshold prepared by BlackRock, Inc. dated December 30, 2020.*

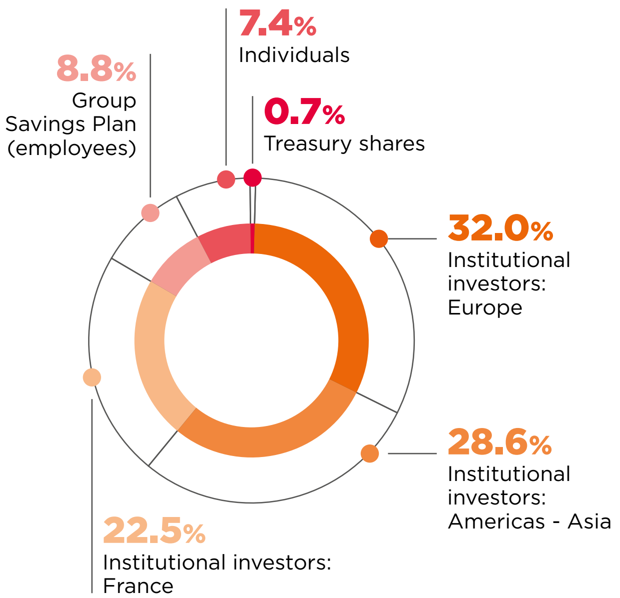
(8) *To the best of the Company's knowledge, based on the statement of crossing of threshold prepared by Caisse des Dépôts et Consignations dated December 29, 2020 indicating its direct and indirect ownership through CNP Assurances, which it controls.*

(9) *The percentage of share capital and voting rights held by all Directors and members of the Group's General Management is less than 0.10%. The number of shares held by each Director is shown in section 5.1.1 p. 156.*

To the best of the Company's knowledge, at December 31, 2022, no other shareholder directly or indirectly, acting alone or in concert, held more than 5% of the Company's share capital or voting rights.

According to the latest study of identifiable bearer shares, at December 31, 2022, the number of shareholders was estimated at approximately 200,000.

The following chart presents the ownership structure of Compagnie de Saint-Gobain at December 31, 2022 by major shareholder category.



7.1.5 DISCLOSURE THRESHOLDS

Caisse des dépôts et consignations

During fiscal year 2022, the Caisse des Dépôts et Consignations made several threshold disclosures stating that it had exceeded or dropped below the 5% legal threshold. Most recently, on November 16, 2022, the Caisse des Dépôts et Consignations disclosed to the French Financial Markets Authority (AMF) that it had exceeded, on November 9, 2022, directly and indirectly, the threshold of 5% of the voting rights of Compagnie de Saint-Gobain, holding, directly and indirectly through CNP Assurances, which it controls, 4.29% of the share capital and 5.15% of the voting rights.

The Caisse des Dépôts et Consignations specified that this disclosure threshold statement was the result of the receipt of Compagnie de Saint-Gobain shares as collateral by CNP Assurances.

It is specified that the Caisse des Dépôts et Consignations disclosed to the French Financial Markets Authority (AMF) that it had dropped, on February 1, 2023, directly and indirectly, below the threshold of 5% of the voting rights of Compagnie de Saint-Gobain, holding, directly and indirectly through CNP Assurances and LBP Prévoyance, which it controls, 4.09% of the share capital and 4.97% of the voting rights.

The Caisse des Dépôts et Consignations specified that this disclosure threshold statement was the result of the return of Compagnie de Saint-Gobain shares held as collateral by CNP Assurances.

Statutory disclosure thresholds

In addition, the Company received several notifications during the year in respect of the obligation set out in the Company's bylaws to disclose any and all changes in interest to above or below 0.5% of the share capital or voting rights, or any multiple thereof. Those disclosure notifications, upwards or downwards, were received following the sale of shares or changes in Compagnie de Saint-Gobain's shares and voting rights.

7.1.6 EMPLOYEE OWNERSHIP STRUCTURE

At December 31, 2022, Group employees held 8.75% of the share capital and 15.23% of the voting rights attached to Compagnie Saint-Gobain shares through the Group Savings Plan Funds [(1)]. The Group Savings Plan Funds are thus the Group's main shareholder.

The Group Savings Plan is a key feature of Saint-Gobain's social contract. It represents an excellent mean of giving employees a stake in the Group and sharing in its results. By allowing employees to become shareholders, the Group Savings Plan strengthens the motivation and sense of belonging of employees within the Group, as well as aligning their interests with those of shareholders.

Employee share ownership transactions have been very successful both in France and internationally. The ownership rate of the Group Savings Plan Funds has remained stable over the past 10 years, although the Company carried out capital increases reserved for employees each year (8.4% of the capital held by the Group Savings Plan Funds (*fonds commun de placement d'entreprise*, FCPE) as at December 31, 2012 compared with 8.75% at December 31, 2022). This stability can be explained in particular by employees' periodic disposals of available assets.

At December 31, 2022, approximately 64,000 employees of the Group were shareholders of Compagnie de Saint-Gobain through the Group Savings Plan.

In 2022, 4,916,097 shares were issued under the Group Savings Plan offering Group employees two classic formulae with a five- or ten-year lock-up, for a total of €222.2 million (compared with 5,562,855 shares and €199.2 million in 2021).

In France, 71% of French employees invested in the Group Savings Plan through a corporate mutual fund (FCPE). Employees in 27 other European countries and 25 countries outside Europe were also given the opportunity to take part in the Group Savings Plan. In total, 49,497 present and former Group employees participated in the Group Savings Plan in 2022.

A new plan has been launched in 2023. It gives employees the opportunity to acquire up to 8,083,903 shares, i.e., approximately 1.6% of the share capital, with the classic five- or ten-year lock-up formulas.

(1) At December 31, 2022, to the Company's knowledge, in accordance with the provisions of Article L. 225-102 of the French Commercial Code, the number of Company shares held directly or indirectly by employees of the Company and related companies under the Group Savings Plan amounted to 50,986,688, i.e., 9.89% of the Company's share capital, including 45,131,274 shares through the company mutual funds (FCPE) and 5,855,414 registered shares held by employees. At December 31, 2022, 1,524,693 performance shares were held in registered form by employees.

7.1.7 SHAREHOLDER PACTS OR AGREEMENTS INVOLVING COMPAGNIE DE SAINT-GOBAIN SHARES

The Company has no knowledge of shareholder agreements, or of shareholders acting in concert with regard to the shares forming its share capital.

7.1.8 CONTROL OF THE COMPANY

At December 31, 2022, to the best of its knowledge, the Company was not controlled and has not been subject to any agreement binding on one or more shareholders or any other individual or legal entity, acting alone or in concert, concerning the direct or indirect holding of its capital or its control, or the implementation of which might subsequently involve a change in control of the Company.

7.1.9 ASPECTS THAT MAY HAVE AN EFFECT IN THE EVENT OF A TAKEOVER BID

Agreements that could result in restrictions on share transfers and the exercise of voting rights

The Company is not aware of any agreements between shareholders that could result in restrictions on the transfer of shares and the exercise of the Company's voting rights.

Impact of a change of control on certain Company operations

Company bonds issued since 2006 by Compagnie de Saint-Gobain contain a bearer protection clause in the event of change of control, allowing bearers to ask Compagnie de Saint-Gobain (at its discretion) to either buy them back with a view to early redemption or to buy them at par (plus accrued interest). This option is provided for only in the following cases: (i) the rating of the bonds concerned has been lowered from investment grade to non-investment grade by a designated rating agency; (ii) the rating of the bonds concerned, which was non investment grade, has been lowered by one notch (e.g. from BB + to BB) by a designated rating agency; (iii) the rating is withdrawn – and, in each of these cases (i) to (iii), the action of the rating agency is expressly linked to the change of control –; or (iv) at the time of the change of control, the bonds concerned were not rated. Total outstanding of the borrowings concerned at December 31, 2022 were €9,776 million.

In addition, the agreements relating to the syndicated bank lines of credit in support of the general financing of the Group (dated December 2017 for respective amounts of €1,520 million and €2,480 million) also contain change of control clauses.

Finally, certain deferred compensation and defined-benefit pension plans of the Group's US subsidiaries would be immediately terminated in case of change of control, causing beneficiaries' rights to become due in 12 months. The amounts concerned total US$143 million at December 31, 2022.

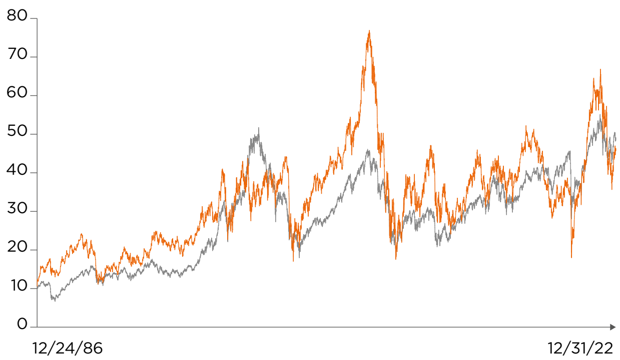
7.2 STOCK MARKET INFORMATION/SECURITIES MARKET

7.2.1 THE SAINT-GOBAIN SHARE

Saint-Gobain shares are listed on Compartment A of the Euronext market in Paris (ISIN FR 0000 125007) where at December 31, 2022, the Company had the 21st largest market capitalization of the CAC 40 (€23,544 million) and the 24th most actively traded stock on this market, with average daily trading volume of 1,314,977 shares during 2022. Saint-Gobain shares have also been traded on the London and Zurich stock exchanges since 1987 and on the Amsterdam and Brussels stock exchanges since 1988.

In addition, Saint-Gobain shares are part of "The Global Dow", a world index comprising 150 companies from both traditional and innovative sectors.

SAINT-GOBAIN SHARE PRICE AT 12/31/2022 (1)



Saint-Gobain stock price — Paris Stock Exchange (average change)

(Source: Euronext Paris)

(1) *Data adjusted for the effects of the March 1994 and February 2009 capital increases, and the four-for-one stock split in June 2002.*

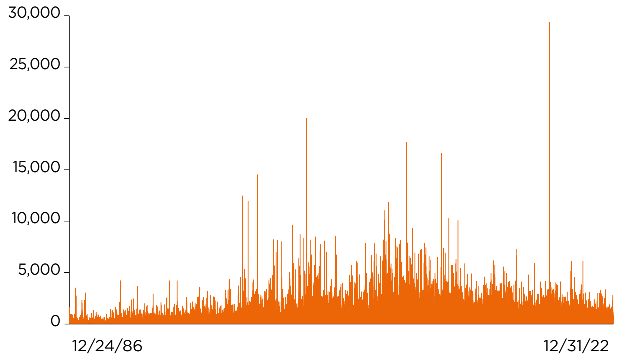
In the area of sustainable development and Corporate Social Responsibility, Saint-Gobain is referenced by the CAC 40 ESG, CAC SBT 1.5, FTSE4Good and Stoxx Europe 600 ESG, and several MSCI and Solactive indexes.

Saint-Gobain equity options are also traded on the options markets in Paris (MONEP) and on the London Stock Exchange. MONEP trading volumes on Saint-Gobain options represented 299,525 contracts in 2022, versus 189,609 in 2021.

The LEI Code of Compagnie de Saint-Gobain is NFONVGN05Z0FMN5PEC35.

NUMBER OF SHARES EXCHANGED (IN THOUSANDS) AT 12/31/2022 (2)

Historical record of the number of shares exchanged per day (in thousands) at the end of 2022



(Source: Euronext Paris)

(2) *Data adjusted for the effects of the March 1994 and February 2009 capital increases, and the four-for-one stock split in June 2002.*

HIGHEST AND LOWEST PRICES (IN EUROS)

Year	Highest	Lowest	Year-end price
2020	40.800	16.408	37.500
2021	64.930	37.790	61.870
2022	67.120	35.180	45.650

(Source: Euronext Paris)

7.2.2 TOTAL SHAREHOLDER RETURN

The total shareholder return on Saint-Gobain shares amounts to:

- 7.6% per annum over the period from December 22, 1986 (date of privatization of Saint-Gobain) to December 31, 2022;
- 2.3% per annum over the last five years (from December 29, 2017 to December 31, 2022).

The total shareholder return is the effective rate of return for the shareholder: it includes variations in the share price, dividends received over the period and assumed to be reinvested in shares, and securities transactions (capital increases).

It is calculated based on the “Total Return” published by Datastream for all listed companies.

TRANSACTIONS SINCE JANUARY 2021

Paris Stock Exchange ISIN code FR0000125007	In number of shares	In capital *(in EUR)*	Highest *(in EUR)*	Lowest *(in EUR)*
2021				
January	28,571,514	1,199,233,521	43.990	37.790
February	23,648,591	1,013,578,703	44.790	41.100
March	34,946,419	1,682,381,952	51.420	43.910
April	22,064,708	1,151,553,338	53.430	50.150
May	27,038,291	1,479,589,477	56.880	52.080
June	28,153,711	1,553,484,040	58.600	54.710
July	22,360,340	1,287,008,599	60.340	54.700
August	22,307,565	1,400,891,410	64.930	59.210
September	24,870,026	1,503,661,590	62.210	57.890
October	24,745,452	1,461,928,253	61.770	54.920
November	23,394,251	1,395,883,423	61.850	55.820
December	20,804,128	1,233,978,393	62.440	56.290
TOTAL	**302,904,996**	**16,363,172,701**		
2022				
January	29,553,154	1,848,093,442	67.120	56.950
February	28,604,682	1,699,623,110	63.200	53.840
March	41,942,526	2,287,907,783	59.190	45.760
April	29,620,440	1,573,046,020	58.100	48.915
May	23,474,055	1,261,840,171	56.910	50.980
June	38,235,026	1,829,051,861	57.870	39.870
July	24,555,188	1,037,643,651	45.795	39.190
August	22,074,058	957,714,522	46.560	39.665
September	27,007,044	1,065,821,771	43.000	35.180
October	22,623,973	894,583,050	42.105	36.390
November	23,110,640	1,007,838,861	46.070	39.720
December	27,148,344	1,242,692,555	47.825	43.985
TOTAL	**337,949,130**	**16,705,856,797**		

(Source: Euronext Paris)

In 2022, 284,385,800 shares were traded on the London Stock Exchange (source: Datastream).

The only Group companies apart from Compagnie de Saint-Gobain that are currently listed on a regulated market are: Grindwell Norton and Saint-Gobain Sekurit India in Mumbai and Compañía Industrial El Volcán in Santiago, Chile.

7.2.3 BONDS

The majority of the bonds issued by the Company (see Note 10 to the consolidated financial statements, section 8.1, p. 311) are listed on a regulated market and issued under the Company's Medium Term Notes ("MTN") program. In August 2022, alongside two standard bond issues under the MTN program, the Company issued "Sustainability-Linked Bonds" (bonds promoting sustainable development) for an amount of €500 million, maturing in 2032. In the event of failure to meet specific ESG performance measures set out in the documentation relating to this issue, one or two increases (as the case may be) in the cost of borrowing (through higher interest rates) would occur in the final year leading up to maturity (for further details, see Note 10 to the consolidated financial statements, section 8.1, p. 311)

7.2.4 NON-VOTING PARTICIPATING SECURITIES

Non-voting participating securities issued in June 1983

In June 1983, Compagnie de Saint-Gobain issued 1,288,299 non-voting participating securities (*titres participatifs*), each with a face value of FRF1,000, now fixed at €152.45, following the conversion to euros in 1999.

Some of those securities have been repurchased over the years. At December 31, 2022, 606,883 of these securities were outstanding with an aggregate face value of €92.5 million.

Interest on these non-voting participating securities ranges from 75% to 125% of the average corporate bond yield (TMO), based on the Saint-Gobain Group's consolidated income. The amount paid out per security in 2022 was €0.45.

TRANSACTIONS SINCE JANUARY 2021 (FIRST TRANCHE)

Paris Stock Exchange ISIN code FR0000140030	In number of securities	In capital *(in EUR)*	Highest *(in EUR)*	Lowest *(in EUR)*
2021				
January	990	130,714	135.000	123.200
February	928	125,339	141.000	128.430
March	421	56,513	136.000	132.020
April	1,145	148,952	135.000	128.250
May	379	50,279	136.980	128.430
June	354	46,635	135.000	128.300
July	617	79,954	135.980	124.010
August	123	15,948	131.970	125.080
September	224	29,121	130.020	130.000
October	664	86,016	130.010	129.000
November	572	73,806	130.000	125.020
December	3,273	423,627	134.000	124.000
TOTAL	**9,690**	**1,266,902**		
2022				
January	3,669	486,322	135.000	123.390
February	308	40,362	134.970	124.360
March	1,791	232,002	134.980	125.050
April	943	123,031	131.990	124.450
May	2,691	353,911	135.000	124.640
June	3,792	488,230	134.970	125.850
July	252	32,397	130.000	125.190
August	96	12,401	130.000	125.780
September	1,506	194,112	130.470	125.190
October	4,142	533,162	130.000	124.170
November	2,653	319,922	122.070	115.180
December	2,389	290,932	130.000	115.180
TOTAL	**24,232**	**3,106,784**		

(Source: Euronext Paris)

TRANSACTIONS SINCE JANUARY 2021 (SECOND TRANCHE)

Paris Stock Exchange ISIN code FR0000047607	In number of securities	In capital *(in EUR)*	Highest *(in EUR)*	Lowest *(in EUR)*
2021				
January	2	234	117.000	117.000
February	172	21,428	127.800	114.550
March	115	14,839	132.000	125.420
April	75	9,623	133.320	125.120
May	46	5,984	132.000	126.700
June	156	20,315	133.900	123.000
July	22	2,904	132.000	132.000
August	231	32,398	146.700	133.000
September	10	1,350	135.000	135.000
October	36	4,680	130.000	130.000
November	189	23,245	124.900	120.020
December	95	11,813	128.000	115.000
TOTAL	**1,149**	**148,814**		
2022				
January	1,921	248,770	129.500	129.500
February	76	9,440	130.000	117.060
March	32	3,895	129.000	120.000
April	76	9,524	127.000	125.000
May	20	2,391	124.980	115.900
June	108	12,647	118.000	117.000
July	3	387	135.300	122.800
August	49	6,126	125.990	125.000
September	19	2,375	125.000	125.000
October	86	9,743	120.000	110.050
November	17	1,967	124.100	115.000
December	142	16,823	119.800	113.000
TOTAL	**2,549**	**324,088**		

(Source: Euronext Paris)

Non-voting participating securities issued in April 1984

In April 1984, Compagnie de Saint-Gobain also issued 194,633 non-voting participating securities *(titres participatifs*) with a face value of ECU 1,000 (now €1,000).

Some of those securities have been repurchased over the years. At December 31, 2022, 77,516 of these securities were outstanding with an aggregate face value of €77.5 million.

Interest on these non-voting participating securities comprises a fixed portion of 7.5% paid per year applicable to 60% of the nominal amount of the security, and a variable portion applicable to the remaining 40% of the nominal amount of the participating security, which is linked to consolidated net profit (loss) for the previous year and to the reference six-month Euribor rate +7/8%. The amount paid per security in 2022 was €61.70, paid in two installments (€27.95 and €33.75).

TRANSACTIONS SINCE MARCH 2013

Luxembourg Stock Exchange ISIN code LU0002804531	In number of securities	In capital *(in EUR)*	Highest *(in EUR)*	Lowest *(in EUR)*
2013				
March	16	13,753	875.000	847.500
April	12	9,810	830.000	815.000
May	56	42,050	800.000	750.000
June	4,001	2,920,730	730.000	730.000
December	51	33,200	700.000	700.000
TOTAL	**4,136**	**3,019,543**	**-**	**-**
2014	-	-	-	-
April	1,545	817,500	530.000	500.000
June	11	6,600	600.000	600.000
July	4,002	2,401,100	600.000	550.000
September	12	7,800	650.000	612.000
December	2	1,400	700.000	700.000
TOTAL	**5,572**	**3,234,400**	**-**	**-**
2015	-	-		**No transaction**
2016	-	-	-	-
February	55	41,250	750.000	750.000
April	2	1,420	720.000	700.000
TOTAL	**57**	**42,670**	**-**	**-**
2017	-	-		**No transaction**
2018	-	-	-	-
November	1	700	700.000	700.000
TOTAL	**1**	**700**	**-**	**-**
2019	-	-	-	-
September	5	3,500	700.000	700.000
TOTAL	**5**	**3,500**	**-**	**-**
2020	-	-	-	-
September	3	2,100	700.000	700.000
TOTAL	**3**	**2,100**	**-**	**-**
2021	-	-		**No transaction**
2022	-	-		**No transaction**

(Source: Luxembourg Stock Exchange)

These non-voting participating securities are not redeemable and the interest paid on them is reported under financial costs.

No securities issued by Compagnie de Saint-Gobain were traded on a stock market in 2022, other than shares, bonds and non-voting participating securities.

7.3 INFORMATION POLICY AND FINANCIAL CALENDAR

Information policy

The Investor Relations Department is responsible for implementing the Group's information policy as regards the financial community, investors and shareholders. Its manager is Mr. Vivien Dardel.

This Department is available to answer questions and address requests for information about the Group:

Saint-Gobain
Investor Relations Department
Tour Saint-Gobain
12, place de l'Iris
92400 Courbevoie cedex

Tel.: +33 1 88 54 05 05 – Fax: +33 1 47 62 50 62

TOLL-FREE NUMBER 0800 32 33 33

During 2022, the Chief Executive Officer and the Chief Financial Officer met quarterly with the financial community to present the Group's performance, during conference calls or meetings broadcast live on the Company's website. In addition to the quarterly meetings, numerous meetings and roadshows were organized physically or virtually, with financial analysts, institutional investors and journalists. Specific meetings and conferences dedicated to ESG issues were also organized, with the participation of the Vice President for Sustainable Development and the Lead independent Director.

2022 was also marked by the announcement of several acquisitions and disposals of businesses as part of Saint-Gobain's strategy of continuing to optimize its portfolio to improve the Group's growth and profitability, in line with its "Grow & Impact" plan.

The sanitary conditions allowed the General Shareholders' Meeting to be held in person on June 2, 2022. In addition, necessary resources were in place to facilitate remote participation by shareholders, with a full live webcast on the Saint-Gobain website and the possibility for shareholders to ask questions live via the webcast platform.

The Group also favored a policy of exchanges with individual shareholders. Several physical visits of the showroom, with its interactive terminals, and of the Saint-Gobain Tower were organized by the Shareholders' Club, with the help of an expert guide. The shareholders discovered more than 80 Group solutions used on the floors by experimenting with the different comforts in order to present and demonstrate many building materials developed by Saint-Gobain. These visits were followed by informal discussions during convivial moments.

Benoit Bazin, Chief Executive Officer, participated in the "Investir Day" on November 29, 2022, to present the Group's transformation, recent results and growth prospects, and finally the strategy for 2025, before answering shareholders' questions. On this occasion, we also answered questions from individual shareholders throughout the day at our stand.

We also communicate regularly on the Group's various initiatives throughout the year on our website: our solutions for our customers, the Group's commitment to carbon neutrality, and the web series "The Extraordinary Tower", which takes a look behind the scenes of the Saint-Gobain Tower.

In addition to the events organized throughout the year, the Investor Relations Department continued to communicate regularly with individual shareholders on the Group's many news items via its website, the "Saint-Gobain Shareholder" app and the Letter to shareholders.

The "Saint-Gobain Shareholder" app allows shareholders to follow the Group's financial news and find essential and useful information (share price, financial calendar, press releases, etc.). Finally, the Letter to shareholders, sent twice a year to Group shareholders in March and September, highlights the Group's financial results and strategic priorities.

In order to ensure privileged contact, shareholders can used the following address:

actionnaires@saint-gobain.com

Compagnie de Saint-Gobain also makes additional services available to holders of registered shares through UPTEVIA, to improve the management of their fully registered shares. For more information, contact the Compagnie de Saint-Gobain Investor Relations Department or:

UPTEVIA – Émetteur Adhérents Euroclear 30
Immeuble GMP – Europe
9, rue du Débarcadère – 93761 Pantin Cedex, France

By telephone: TOLL-FREE NUMBER 0 800 03 33 33

By fax: + 33(0)1 55 77 34 17

Online, on the website:
https://www.uptevia.com

2023 financial calendar

2022 final results: February 23, 2023, after the market closes.

First quarter 2023 revenue: April 27, 2023, after the market closes.

General Shareholders' Meeting: June 8, 2023 at 3 p.m., Salle Pleyel in Paris, 8th, in the absence of restrictive measures related to the health situation.

Dividend:

- Ex-dividend date: June 12, 2023;
- Dividend payment date: June 14, 2023.

First-half 2023 final results: July 26, 2023, after the market closes.

Revenue for the first nine months of 2023: October 26, 2023, after the market closes.

2024 financial calendar

General Shareholders' Meeting: June 6, 2024.

7.4 DIVIDENDS

Year	Number of shares with dividend rights		Net dividend per share *(in EUR)*	Adjusted yield based on year-end share price
2020	525,057,461 actions	(1)	1.33	3.5 %
2021	512,006,300 actions	(2)	1.63	2.6 %
2022	512,063,320 actions	(3)	2.00	4.4 %

(1) *Based on 532,695,363 outstanding shares on the ex-dividend date less 7,637,902 treasury shares held on this date.*

(2) *Based on 524,017,595 outstanding shares on the ex-dividend date less 12,011,295 treasury shares held on this date.*

(3) *Estimated amount based on 515,781,821 outstanding shares at January 31, 2023, less 3,718,501 treasury shares held at this date.*

Dividends not claimed within five years are time-barred and are paid over to the French State.

At its meeting of February 23, 2023, the Board of Directors of Compagnie de Saint-Gobain decided to propose to the General Shareholders' Meeting of June 8, 2023 a dividend of €2 per share.

8

FINANCIAL AND ACCOUNTING INFORMATION

8.1 2022 CONSOLIDATED FINANCIAL STATEMENTS

CONSOLIDATED BALANCE SHEET

Assets

(in EUR millions)	Notes	Dec. 31, 2022	Dec. 31, 2021
Goodwill	(7.1)	12,858	11,181
Other intangible assets	(7.2)	4,026	2,705
Property, plant and equipment	(7.3)	12,163	11,663
Right-of-use assets	(7.4)	2,752	2,959
Investments in equity-accounted companies	(8.1) (8.2)	639	536
Deferred tax assets	(12.2)	382	576
Pension plan surpluses	(6.3)	569	894
Other non-current assets	(8.3)	537	528
NON-CURRENT ASSETS		**33,926**	**31,042**
Inventories	(5.4)	7,219	6,598
Trade accounts receivable	(5.4)	5,178	5,104
Current tax receivable	(5.4) (12.1)	76	166
Other receivables	(5.4)	1,450	1,504
Assets held for sale	(4.3)	1,394	227
Cash and cash equivalents	(10.3)	6,134	6,943
CURRENT ASSETS		**21,451**	**20,542**
TOTAL ASSETS		**55,377**	**51,584**

Liabilities

(in EUR millions)	Notes	Dec. 31, 2022	Dec. 31, 2021
EQUITY AND LIABILITIES			
Shareholders' equity	(11.1)	22,711	20,715
Non-controlling interests		443	411
TOTAL EQUITY		**23,154**	**21,126**
Non-current portion of long-term debt	(10.3)	8,964	9,194
Non-current portion of long-term lease liabilities	(10.3)	2,324	2,474
Provisions for pensions and other employee benefits	(6.3)	1,712	2,014
Deferred tax liabilities	(12.2)	768	555
Other non-current liabilities and provisions	(9.1)	1,092	1,066
NON-CURRENT LIABILITIES		**14,860**	**15,303**
Current portion of long-term debt	(10.3)	1,841	1,336
Current portion of long-term lease liabilities	(10.3)	597	681
Current portion of other liabilities and provisions	(9.1)	693	479
Trade accounts payable	(5.4)	7,266	6,903
Current tax liabilities	(5.4) (12.1)	263	236
Other payables	(5.4)	5,078	4,808
Liabilities held for sale	(4.3)	985	167
Short-term debt and bank overdrafts	(10.3)	640	545
CURRENT LIABILITIES		**17,363**	**15,155**
TOTAL EQUITY AND LIABILITIES		**55,377**	**51,584**

The accompanying notes are an integral part of the consolidated financial statements.

CONSOLIDATED INCOME STATEMENT

(in EUR millions)	Notes	2022	2021
Sales	(5.1)	51,197	44,160
Cost of sales	(5.1)	(38,006)	(32,440)
General expenses including research	(5.1)	(7,915)	(7,265)
Share in net income of core business equity-accounted companies	(8.1)	61	52
OPERATING INCOME		**5,337**	**4,507**
Other business income	(5.1)	245	176
Other business expense	(5.1)	(1,000)	(747)
BUSINESS INCOME		**4,582**	**3,936**
Borrowing costs, gross		(250)	(240)
Income from cash and cash equivalents		54	7
Borrowing costs, net, excluding lease liabilities		**(196)**	**(233)**
Interest on lease liabilities		(66)	(54)
Other financial income and expense		(142)	(120)
NET FINANCIAL EXPENSE	**(10.2)**	**(404)**	**(407)**
Share in net income of non-core business equity-accounted companies	(8.1)	5	4
Income taxes	(12.1) (12.2) (12.3)	(1,082)	(919)
NET INCOME		**3,101**	**2,614**
GROUP SHARE OF NET INCOME		**3,003**	**2,521**
Non-controlling interests		98	93

	Notes	2022	2021
EARNINGS PER SHARE, GROUP SHARE (in EUR)	**(11.2)**	**5.84**	**4.79**
Weighted average number of shares in issue		514,372,413	526,244,506
DILUTED EARNINGS PER SHARE, GROUP SHARE (in EUR)	**(11.2)**	**5.80**	**4.76**
Weighted average number of shares assuming full dilution		517,595,809	529,905,261

The accompanying notes are an integral part of the consolidated financial statements.

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME AND EXPENSE

(in EUR millions)	Notes	2022	2021
NET INCOME		**3,101**	**2,614**
Items that may be subsequently reclassified to profit or loss			
Translation adjustments and restatement for hyperinflation		323	910
Changes in fair value of financial instruments	(10.4)	23	21
Tax on items that may be subsequently reclassified to profit or loss		(4)	(8)
Items that will not be reclassified to profit or loss			
Changes in actuarial gains and losses	(6.3)	(12)	802
Tax on items that will not be reclassified to profit or loss	(12.1) (12.2)	(10)	(142)
Changes in assets at fair value through equity and other items	(8.3)	(9)	37
OTHER ITEMS OF COMPREHENSIVE INCOME (EXPENSE)		**311**	**1,620**
COMPREHENSIVE INCOME (EXPENSE)		**3,412**	**4,234**
Group share		3,327	4,139
Non-controlling interests		85	95

Translation adjustments in 2022 primarily concern the pound sterling and US dollar.

The accompanying notes are an integral part of the consolidated financial statements.

CONSOLIDATED STATEMENT OF CASH FLOWS

(in EUR millions)	Notes	2022	2021
NET INCOME		**3,101**	**2,614**
Share in net income (loss) of equity-accounted companies, net of dividends received	(8.1)	(58)	(23)
Depreciation, amortization and impairment of assets (including right-of-use assets)	(5.1) (7)	2,442	2,174
Gains and losses on disposals of assets	(5.3)	42	7
Unrealized gains and losses arising from changes in fair value and share-based payments		21	33
Restatement for hyperinflation		18	13
Changes in inventory	(5.4)	(855)	(1,179)
Changes in trade accounts receivable and payable, and other accounts receivable and payable	(5.4)	785	912
Changes in tax receivable and payable	(5.4)	51	50
Changes in deferred taxes and provisions for other liabilities and charges	(6.3) (9.1) (12.2) (12.3)	164	(162)
NET CASH FROM OPERATING ACTIVITIES		**5,711**	**4,439**
Acquisitions of property, plant and equipment and intangible assets, and changes in amounts due to suppliers of fixed assets	(7.2) (7.3) (5.4)	(1,889)	(1,441)
Acquisitions of shares in controlled companies, net of cash acquired		(3,413)	(913)
Increase in investment-related liabilities	(9.1)	57	45
Decrease in investment-related liabilities	(9.1)	(21)	(5)
Acquisitions of other investments	(8.3)	(99)	(33)
Investments		**(5,365)**	**(2,347)**
Disposals of property, plant and equipment and intangible assets	(7.2) (7.3)	89	207
Disposals of shares in controlled companies, net of cash divested		416	(120)
Disposals of other investments	(8.3)	6	4
(Increase) decrease in amounts receivable on sales of fixed assets	(5.4)	(32)	(20)
Divestments		**479**	**71**
Increase in loans and deposits	(8.3)	(70)	(76)
Decrease in loans and deposits	(8.3)	118	153
NET CASH FROM (USED IN) INVESTMENT AND DIVESTMENT ACTIVITIES		**(4,838)**	**(2,199)**

(in EUR millions)	Notes	2022	2021
Issues of capital stock	(a)	222	199
(Increase) decrease in treasury stock	(a)	(781)	(854)
Dividends paid	(a)	(833)	(697)
Transactions with shareholders of the parent company		**(1,392)**	**(1,352)**
Capital increases in non-controlling interests	(a)	15	13
Acquisitions of minority interests without gain of control		(2)	(9)
Disposals of minority interests without loss of control		39	12
Changes in investment-related liabilities following the exercise of put options of minority shareholders	(9.1)	0	(21)
Dividends paid to non-controlling interests and change in dividends payable	(a)	(77)	(31)
Transactions with non-controlling interests		**(25)**	**(36)**
Increase (decrease) in bank overdrafts and other short-term debt		(46)	(107)
Increase in long-term debt	(b) (10.3)	1,624	52
Decrease in long-term debt	(b) (10.3)	(1,286)	(1,584)
Decrease in lease liabilities	(b)	(725)	(762)
Change in debt		**(433)**	**(2,401)**
NET CASH FROM (USED IN) FINANCING ACTIVITIES		**(1,850)**	**(3,789)**
Net effect of exchange rate changes on cash and cash equivalents		175	31
Net effect of changes in fair value on cash and cash equivalents		5	1
Cash and cash equivalents classified within assets held for sale		(12)	17
INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS		**(809)**	**(1,500)**
CASH AND CASH EQUIVALENTS AT BEGINNING OF PERIOD		**6,943**	**8,443**
CASH AND CASH EQUIVALENTS AT END OF PERIOD		**6,134**	**6,943**

[a] *Please refer to the consolidated statement of changes in equity.*
[b] *Including bond premiums, prepaid interest, issue costs and interest on lease liabilities.*

In 2022, income tax paid represented €1,001 million (€793 million in 2021), total rental expenses paid €974 million (€905 million in 2021), including €66 million in interest paid on lease liabilities (€54 million in 2021), and interest paid net of interest received €210 million (€244 million in 2021).

The accompanying notes are an integral part of the consolidated financial statements.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

(in EUR millions)	Capital stock	Additional paid-in capital and legal reserve	Retained earnings and consolidated net income	Cumulative translation adjustments	Fair value reserves	Treasury stock	Shareholders' equity	Non-controlling interests	Total equity
AT JANUARY 1, 2021	**2,131**	**5,104**	**13,687**	**(2,857)**	**(48)**	**(125)**	**17,892**	**311**	**18,203**
Income and expense recognized directly in equity			678	908	32		1,618	2	1,620
Net income for the period			2,521				2,521	93	2,614
Total income and expense for the period			**3,199**	**908**	**32**		**4,139**	**95**	**4,234**
Issues of capital stock									
Group Savings Plan	22	177					199		199
Other								13	13
Dividends paid			(698)				(698)	(31)	(729)
Shares purchased and sold			19			(873)	(854)		(854)
Shares canceled	(57)	(737)				794			0
Share-based payments			58				58		58
Changes in Group structure and other			(21)				(21)	23	2
AT DECEMBER 31, 2021	**2,096**	**4,544**	**16,244**	**(1,949)**	**(16)**	**(204)**	**20,715**	**411**	**21,126**
Income and expense recognized directly in equity			(26)	335	15		324	(13)	311
Net income for the period			3,003				3,003	98	3,101
Total income and expense for the period			**2,977**	**335**	**15**		**3,327**	**85**	**3,412**
Issues of capital stock									
Group Savings Plan	20	202					222		222
Other								15	15
Dividends paid			(833)				(833)	(78)	(911)
Shares purchased and sold			8			(789)	(781)		(781)
Shares canceled	(53)	(617)				670			0
Share-based payments			43				43		43
Changes in Group structure and other			18				18	10	28
AT DECEMBER 31, 2022	**2,063**	**4,129**	**18,457**	**(1,614)**	**(1)**	**(323)**	**22,711**	**443**	**23,154**

The accompanying notes are an integral part of the consolidated financial statements.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

The consolidated financial statements reflect the accounting position of Compagnie de Saint-Gobain (the Company) and its subsidiaries ("the Group"), as well as the Group's interests in associate companies and joint ventures. They are expressed in euros rounded to the nearest million.

These consolidated financial statements were adopted on February 23, 2023 by the Board of Directors and will be submitted to the Shareholders' Meeting of June 8, 2023 for approval.

Accounting principles and policies are highlighted in a distinct color.

NOTE 1 ACCOUNTING PRINCIPLES AND POLICIES

The accounting policies applied are consistent with those used to prepare the financial statements for the year ended December 31, 2021, except for the application of the new standards and interpretations described below. The consolidated financial statements have been prepared using the historical cost convention, except for certain assets and liabilities that have been measured using the fair value model as explained in these notes.

1.1 Standards applied

The consolidated financial statements have been prepared in accordance with the International Financial Reporting Standards (IFRS) and interpretations adopted for use in the European Union at December 31, 2022. These consolidated financial statements have also been prepared in accordance with the IFRS issued by the International Accounting Standards Board (IASB).

1.1.1 Standards, interpretations and amendments to existing standards applicable for reporting periods beginning on or after January 1, 2022

The following standards and amendments, effective since January 1, 2022, were applied where necessary to the 2022 consolidated financial statements:

- Amendment to IFRS 3, "Reference to the Conceptual Framework";
- Amendments to IAS 37, "Onerous Contracts – Cost of Fulfilling a Contract";
- Amendments to IAS 16, "Property, Plant and Equipment – Proceeds before Intended Use".

The main IFRIC decisions published in 2022 concern:

- IFRS 9 and IAS 20, "TLTRO III Transactions";
- IAS 7, "Demand Deposits with Restrictions on Use arising from a Contract with a Third Party";
- IFRS 15, "Principal versus Agent: Software Reseller";
- IAS 37, "Negative Low Emission Vehicle Credits";
- IFRS 17, "Transfer of Insurance Coverage under a Group of Annuity Contracts";
- IAS 32, "Special Purpose Acquisition Companies (SPAC): Classification of Public Shares as Financial Liabilities or Equity";
- IFRS 9 and IFRS 16, "Lessor Forgiveness of Lease Payments";
- IFRS 2 and IAS 32, "Special Purpose Acquisition Companies (SPAC): Accounting for Warrants at Acquisition";
- IFRS 17 and IAS 21, "Multi-currency Groups of Insurance Contracts".

The annual improvements to IFRSs – 2018-2020 Cycle applicable at January 1, 2022 concern the following standards:

- IFRS 1, "First-time Adoption of IFRS – Subsidiary as a First-time Adopter", concerning the measurement of translation differences at the subsidiary's date of transition to IFRS;
- IFRS 9, "Fees in the '10 per cent' Test for Derecognition of Financial Liabilities";
- IFRS 16, "Lease Incentives (Amendment to Illustrative Examples)";
- IAS 41, "Fair Value Measurement of Biological Assets".

These amendments have no material impact on the Group's consolidated financial statements.

1.1.2 Standards, interpretations and amendments to existing standards available for early adoption in reporting periods beginning on or after January 1, 2022

The new standards, interpretations and amendments to existing standards applicable to accounting periods starting on or after January 1, 2023 were not early adopted by the Group at December 31, 2022. These are:

- Amendment to IAS 1 and IFRS Practice Statement 2, "Classification of Liabilities as Current or Non-current" along with significant information on accounting policies;
- Amendment to IFRS 17, "Initial Application of IFRS 17 and IFRS 9 – Comparative Information";
- Amendment to IFRS 17, "Insurance Contracts", including amendments published in June 2020;
- Amendment to IAS 8, "Definition of Accounting Estimates";
- Amendment to IAS 12, "Deferred Tax related to Assets and Liabilities arising from a Single Transaction".

1.1.3 Standards, interpretations and amendments to existing standards published but not yet applicable

The new standards, interpretations and amendments to existing standards that have been published but are not yet applicable concern:

- Amendment to IAS 1, "Classification of Liabilities as Current or Non-current" (effective date deferred by one year, i.e., to January 1, 2024);
- Amendment to IFRS 16, "Leaseback Liability in a Sale and Leaseback".

Where applicable to Saint-Gobain, these amendments are currently being analyzed by the Group.

1.2 Estimates and assumptions

The preparation of consolidated financial statements in compliance with IFRS requires management to make estimates and assumptions that affect the amounts of assets and liabilities reported in the balance sheet and the disclosure of contingent assets and liabilities in the notes to the financial statements, as well as the reported amounts of income and expenses during the period. These estimates and assumptions are based on past experience and on various other factors in the prevailing economic and financial environment which makes it difficult to predict future business performance. Actual amounts may differ from those obtained through the use of these estimates and assumptions.

The main estimates and assumptions described in these notes concern the measurement of employee benefit obligations and share-based payments (see note 6, p. 291), asset impairment tests (notably the assumptions used in the tests relating to the Group's commitments to reduce its net carbon emissions) and the determination of lease terms (see note 7, p. 298), provisions for other liabilities (see note 9, p. 307), the measurement of financial instruments (see note 10, p. 311), and taxes (see note 12, p. 323).

NOTE 2 IMPACT OF THE RUSSIA-UKRAINE CONFLICT

Amid the fast-changing, complex environment of the Russia/Ukraine conflict, the Group's first priority has been to affirm its support for and solidarity with Ukraine and the Ukrainian people, and to ensure the safety of all its Ukrainian employees and their families throughout the world.

The Group's teams in Poland and Romania stepped up to provide humanitarian and financial aid to refugees in their countries. This was in addition to the financial support provided by the Group, in particular to the International Committee of the Red Cross.

The main impacts of the conflict on the Group's strategy and financial performance were analyzed from various standpoints, as discussed below.

Group operating activities

Since the outbreak of the conflict between Russia and Ukraine, in addition to the Group's application of the sanctions imposed against Russia, Saint-Gobain has decided to halt all its exports to customers in Russia and Belarus, and all its imports from these two countries, and has shelved all new investment projects in these countries.

Nevertheless, its local Russian operations, which represent around 0.7% of the Group's worldwide sales and do not involve any local partnerships, continue to operate autonomously, with locally produced solutions sold exclusively on local construction markets.

In Ukraine, Saint-Gobain does not have any industrial operations, and its sales office in Kyiv has been closed.

In organizational terms, Ukraine is now included in a Poland-Ukraine cluster falling under the direct responsibility of the management team in Poland.

One of the indirect consequences of the conflict is the steep rise in inflation. As a result, the Saint-Gobain Group recorded a year-on-year rise of around €3 billion in its energy and raw materials costs. Inflation concerns in particular the cost of energy, especially in Europe.

Thanks to its policy of hedging energy costs, its efforts in terms of pricing, and the value-added delivered by its solutions, the Saint-Gobain Group was able to generate a positive sale price/cost (raw materials and energy) differential in 2022. The Group has hedges in place for 2023 covering around 70% of its natural gas and over 60% of its electricity purchases in Europe.

More specifically, the countries most sensitive to Russian gas supplies for Saint-Gobain are Germany, Poland and Czechia. The Group has drawn up various plans for continuing its operations in these countries, enabling it to significantly mitigate the impact of a scenario in which all or some supplies of Russian gas are terminated. Various levers can be used by the Group, such as the classification of priority industries, using alternative energy sources prepared at certain sites, and increasing flexibility of its production capacities.

Scope of consolidation

Insofar as the Group continues to produce and sell in Russia for the local market, and to ensure its local business can continue to operate with complete autonomy of management and control of returns, Saint-Gobain still controls its Russian subsidiaries.

In accordance with IFRS 10, its Russian and Ukrainian companies have not therefore been deconsolidated, and continue to be included in the Group's scope of consolidation for the preparation of the 2022 consolidated financial statements.

Impairment review in light of the Russia/Ukraine conflict

Total non-current assets in Russia represent €207 million, or 0.6% of the Group's total non-current assets.

No evidence of impairment was identified for these companies. Consequently, no impairment losses related to the Russia/Ukraine conflict were recognized in 2022.

Financial risks (credit, liquidity, forex)

Given the Group's limited presence in Russia and Ukraine, the conflict has not generated any credit or liquidity risks, and forex exposure is also being managed effectively.

Since March 2, 2022, the Group has been using the Russian ruble exchange rate published by Reuters for the translation of its consolidated financial statements.

While the Russia/Ukraine conflict has not had a direct material impact on the financial statements for 2022, the situation remains unstable and complex. The Group therefore remains vigilant in analyzing the potential future impacts of the conflict.

NOTE 3 CLIMATE ISSUES

Sustainability is essential in supporting the growth of the Saint-Gobain Group and sustainability issues are therefore an integral part of its growth outlook.

Responding to climate challenges is therefore at the heart of the Group's strategy, and its net-zero-carbon commitment is taken into account in its financial decisions.

3.1 The commitment to carbon neutrality is at the heart of the Group's strategy

In line with the Paris Agreement, Saint-Gobain signed the UN Global Compact's "Business ambition for 1.5°C" pledge on September 23, 2019 in New York, thereby affirming its commitment to achieving carbon neutrality by 2050.

In order to achieve this by 2050, Saint-Gobain defined a 2030 roadmap in November 2020. The roadmap identifies the levers and action plans that will enable the Group to meet its goal of a 33% reduction in scope 1 and 2 carbon emissions in absolute terms compared to a 2017 baseline, and a 16% reduction for scope 3 emissions.

The Group's capital expenditure is aligned with the investment requirements identified in this CO_2 roadmap.

Saint-Gobain's roadmap and commitment to carbon neutrality by 2050 apply to all of its activities. To date, no activity has been identified as being incompatible with this target.

As well as its commitments to reduce its emissions through to 2030, the Group seeks to develop and propose solutions to help decarbonize the construction sector and its customers' markets.

- After validating its 2030 greenhouse gas emissions reduction targets in 2020, in September 2022 the Science-Based Targets initiative (SBTi) approved the Group's commitment to being net-zero-carbon by 2050, considering its roadmap to be consistent with the new net-zero standard and the Paris climate agreement.
- In 2022, Saint-Gobain was once again recognized for its leadership in the fight against climate change by the CDP, a global environmental non-profit organization. In 2022, for the second time in a row, the Group was included in the CDP's "Climate Change A List" comprising 283 companies out of the more than 15,000 that responded to the CDP's 2022 climate change questionnaire.
- The innovative solutions developed by Saint-Gobain to improve the energy performance of buildings help reduce both the negative impact of construction on the environment and their occupants' energy bills, while also enhancing occupant well-being. Saint-Gobain's solutions play an important role in the fight against climate change, since they reduce the amount of greenhouse gas emissions by reducing energy use. The Group's thermal insulation and insulating glass solutions provide benefits in terms of energy performance and greenhouse gas emissions that significantly outweigh the carbon footprint associated with their production. In 2021, Saint-Gobain estimated that the solutions produced and sold by the Group in one year had helped avoid nearly 1,300 million tonnes of CO_2 emissions over their lifespan.
- In 2022, the Group further strengthened its position in the construction chemicals market by acquiring GCP Applied Technologies Inc., a company operating 50 production sites in 38 countries whose products play a significant role in helping to decarbonize construction through innovative admixtures that reduce the carbon footprint of cement.
- In order to increase the percentage of sales represented by its sustainable solutions, Saint-Gobain has developed a method for evaluating the environmental benefits of its solutions for all stakeholders. It aims to generate 75% of its sales from sustainable solutions by 2025.

3.2 The commitment to carbon neutrality is taken into account when preparing the Group's financial statements

In line with these commitments and targets, the Group has taken into account climate change and sustainable development issues in its financial statements, mainly in the areas cited below.

A Group-wide commitment

All Regions and High Performance Solutions (HPS) have drawn up dynamic CO_2 roadmaps through to 2030, based on the principle of a yearly review and consistent with the main financial deadlines (three-year business plan and budget).

These CO_2 roadmaps are broken down by country or entity, plant and project, and together, will be used to justify the Group's 2030 emissions reduction target. Specific projects have been identified and evaluated in all countries and are part of an investment plan set out in the 2030 CO_2 roadmap, with an average budget of €100 million per year between 2020 and 2030.

These roadmaps focus on improving operating efficiency, changing the energy mix, rolling out new technologies, and investing to reduce CO_2 emissions.

Marketing teams are also involved, adapting product design to reduce environmental impact.

2022 was shaped by:

- An acceleration in the delivery of technological developments and projects set out in the Group's roadmap to carbon neutrality:
  - On May 16, 2022, Saint-Gobain became the first company in the world to achieve zero-carbon production (scopes 1 and 2) of flat glass, using 100% recycled glass (cullet) and 100% green energy, produced from biogas and decarbonized electricity. It was implemented at Saint-Gobain's flat glass manufacturing plant in Aniche, Northern France.
  - In Sweden in the first half of 2022, the Balsta plant carried out a zero-carbon plasterboard campaign (scopes 1 and 2) powered by biogas and 100% green electricity, with up to 30% recycled content. Elsewhere, the Group is building two fully-electric plants in Norway and Canada with net-zero-carbon production (scopes 1 and 2), powered by hydroelectricity. More than €90 million in investments are needed to electrify these plants, while more energy efficient processes enable energy savings of up to 30%.
  - In line with the Group's objectives to accelerate the transition to a circular economy, Saint-Gobain was the first manufacturer in France to produce and market a plasterboard made from more than 50%-recycled gypsum.
- The signature of new renewable power purchase agreements (PPA – scope 2) in North America (10-year PPA for 200MW of solar energy, which should reduce electricity-related CO_2 emissions by 33% for its 145 industrial sites in North America), in Poland (15-year contract for the purchase of wind and solar power, covering nearly 45% of electricity requirements), and in Spain (11-year contract for the purchase of wind, solar and hydroelectric power, covering 55% of electricity requirements).

Basis of measurement applicable to assets incorporating the cost of emissions per tonne of CO_2

The Group's commitments to carbon neutrality were taken into account when carrying out the sensitivity tests as part of the annual impairment testing of its cash-generating units (CGUs).

Based on information on current CO_2 emissions from production sites, and factoring in projections and assumptions as regards business trends and CO_2 emissions reductions (scopes 1 and 2), validated by each of the Regions and by High Performance Solutions, a projection of future CO_2 emissions was determined for each site up to 2030.

These projections take into account planned investments to:

- maximize energy efficiency by exploring all energy switching options (biofuel, hydrogen or synthetic fuel, green electricity);
- make products lighter, replace them with low-carbon alternatives, increase recycled content and significantly rethink formulations and processes.

For the European Union scope, the Group has calculated projected CO_2 emissions reductions up to 2030 based on detailed roadmaps by activity, taking into account historical business levels, a factor reflecting exposure to the risk of carbon leakage, and a cross-sector adjustment factor, as well as the stock of CO_2 emissions allowances held at the end of December 2022.

It should be noted that the annual sensitivity tests for 2022 also factored in the assumption dated December 18, 2022 put forward by the European Council and Parliament regarding carbon market reform, according to which free CO_2 emissions allowances granted to industry under the European Union Emissions Trading Scheme (EU ETS) would be gradually phased out between 2026 and 2034 (100%), with 2.5% phased out by 2026, 5% by 2027, 10% by 2028, 22.5% by 2029 and 48.5% by 2030.

These CO_2 emissions were valued on the basis of a euro price per tonne resulting from a panel of 11 analysts as of November 11, 2022 (source: Carbon Market Pulse Limited, an independent private company based in London).

(in euros/tonne)	2023	2024	2025	2026	2030
Average (11 analysts)	77	90	103	120	140

For the non-Europe scope, tonnes of CO_2 emitted were priced in the tests as from 2023 assuming a fixed price of €75 per tonne until 2030 and no government support schemes such as CO_2 emissions allowances.

This assumption of €75 per tonne is consistent with the application of an internal carbon price set by Saint-Gobain, and is conservative in that few countries outside Europe have so far defined a price per tonne of carbon.

In addition to the action plans rolled out at its production sites, the Group has set two internal carbon prices:

- €75 per tonne for major industrial investment projects and investments related to a change in energy source;
- €150 per tonne for R&D investment in breakthrough technology, particularly "low-carbon" projects.

A similar approach has been adopted for major acquisitions, and includes the work that may be required to ensure that the carbon impact of these acquisitions is compatible with Saint-Gobain's roadmap.

Sensitivity tests were carried on the Group's assets across all of its industrial activities (excluding Distribution and the recent Chryso/GCP and Kaycan acquisitions).

The discounted future cash flows, calculated on the basis of the three-year business plan (2023-2025) were extrapolated to 2029 and then impacted by the projected cost of CO_2 emissions net of the free emissions allowances received. These discounted cash flows were compared with the net value of the assets at December 31, 2022 (property, plant and equipment, intangible assets and working capital).

As a result of the sensitivity tests performed based on the aforementioned assumptions, no impairment would be recognized against the Group's non-current assets, since the headroom (€20.4 billion), i.e., the difference between discounted future cash flows and the net value of the assets tested (€20.9 billion) is significantly positive.

It should be noted that any increase in carbon prices will result in higher demand for Saint-Gobain's solutions, which is a driver of growth in business volumes and cash generation.

CO_2 emissions allowances

At the end of 2022, the Saint-Gobain Group had 4.4 million tonnes of greenhouse gas emissions allowances from the European Commission. Accordingly, it believes that its current level of allowances will continue to cover its emissions for at least five years.

Sustainable investments, research and development expenditure, and other expenditure aimed at combating climate change and protecting the environment

Investments to reduce CO_2 emissions are reported monthly by each Group company in the Group's financial reporting.

To help accelerate progress towards carbon-neutral production, €1 billion has been set aside over the ten years from 2021 to 2030 (i.e., an average of €100 million per year) for investments and R&D.

In 2022, the Group set aside €128 million in capital expenditure (€55 million in 2021) and €63 million in research and development expenditure (€44 million in 2021) to further its CO_2 emissions reduction strategy.

Sustainability-linked bond

In August 2022, Saint-Gobain completed a debt issue which included a 10-year €500 million Sustainability-Linked Bond (SLB) tranche paying a 2.625% coupon. The SLB is linked to two 2030 targets in relation to the 2017 baseline year: (i) reduce scope 1 and 2 CO_2 emissions by 33%, and (ii) reduce non-recovered production waste by 80%. A 0.375% step-up would apply on the 2032 coupon if either of these targets is not met.

Executive compensation policy

In stepping up its commitment to carbon neutrality, since 2020 the Group has increased the weighting of CSR objectives in the criteria determining short- and long-term executive compensation plans. CSR objectives now determine 20% of amounts paid out under long-term plans (versus 15% previously), and 10% of amounts paid out under short-term plans (5% previously), while CO_2 objectives now account for 10% of long-term plans and 5% of short-term plans.

Consideration of future changes in regulations

The Group will continue to analyze the potential impacts of future changes in regulations related to climate change and the energy transition as part of its commitment to achieve carbon neutrality by 2050. In this respect, Saint-Gobain closely monitors international and European projects on sustainability reporting.

NOTE 4 SCOPE OF CONSOLIDATION

4.1 Accounting principles related to consolidation

The Group's consolidated financial statements include the accounts of Compagnie de Saint-Gobain and of all companies controlled by the Group, as well as those of jointly controlled companies and companies over which the Group exercises significant influence.

4.1.1 Consolidation methods

Full consolidation

Companies over which the Group exercises exclusive control, either directly or indirectly, are fully consolidated.

Joint arrangements

Joint arrangements that meet the definition of joint ventures are accounted for by the equity method. Balance sheet and income statement items relating to joint arrangements that meet the definition of joint operations are consolidated line-by-line based on the amount actually contributed by the Group.

Equity accounting

Companies over which the Group directly or indirectly exercises significant influence are accounted for by the equity method.

The Group's share of the income of equity-accounted companies is shown on two separate lines of the income statement. The income of equity-accounted companies whose main business activity is in keeping with the Group's core operational business is presented in business income under "Share in net income of core business equity-accounted companies", while the income of other equity-accounted companies is shown under "Share in net income of non-core business equity-accounted companies" in pre-tax income.

4.1.2 Business combinations

Step acquisitions and partial disposals

When the Group acquires control of an entity in which it already holds an equity interest, the transaction is treated as a step acquisition (an acquisition in stages), as follows: (i) as a disposal of all the previously-held interest, with recognition of any resulting gain or loss in the consolidated financial statements, and (ii) as an acquisition of all of the shares, with recognition of the corresponding goodwill on the entire interest (previous and new acquisitions).

In the event of a partial disposal resulting in the loss of control (but with the Group retaining a non-controlling interest), the transaction is also treated as both a disposal and an acquisition, as follows: (i) as a disposal of the entire interest, with recognition of any resulting gain or loss in the consolidated financial statements, and (ii) as an acquisition of a non-controlling interest, measured at fair value.

Potential voting rights and share purchase commitments

Potential voting rights conferred by call options on minority interests are taken into account in determining whether the Group exclusively controls an entity only when the Group has control.

When calculating its percentage interest in controlled companies, the Group considers the impact of cross put and call options on minority interests in the companies concerned. This approach gives rise to the recognition in the financial statements of an investment-related liability, included within other provisions and non-current liabilities, corresponding to the present value of the estimated exercise price of the put option, with a corresponding reduction in non-controlling interests and shareholders' equity. Any subsequent changes in the fair value of the liability are recognized by adjusting equity.

Non-controlling interests

Under IFRS 10, non-controlling interests are considered as a shareholder category (single economic entity approach). As a result, changes in minority interests with no loss of control continue to be recorded in the statement of changes in equity and have no impact on the income statement or balance sheet, except for changes in cash and cash equivalents.

4.1.3 Non-current assets and liabilities held for sale – Discontinued operations

Assets and liabilities that are immediately available for sale, and for which a sale is highly probable within the next 12 months, are classified as non-current assets and liabilities held for sale. When several assets are held for sale in a single transaction, they are accounted for as a disposal group, which also includes any liabilities directly associated with those assets. The assets or disposal groups held for sale are measured at the lower of carrying amount and fair value less costs to sell. Depreciation/amortization ceases when non-current assets are classified as held for sale. Non-current assets and liabilities held for sale are presented separately on two lines of the consolidated balance sheet, and income and expenses continue to be recognized in the consolidated income statement on a line-by-line basis. The reclassified assets are carried at the lower of their fair value less costs to sell and their carrying amount. At the end of each reporting period, the value of the assets and liabilities held for sale is reviewed to determine whether any provision adjustments should be recorded due to a change in their fair value less costs to sell.

An operation is classified as discontinued when it represents a separate major line of business for the Group, and when the criteria for classification as an asset held for sale have been met, or when the Group has sold the asset. Discontinued operations are reported on a single line in the Group's income statement. This line shows the after-tax net income from discontinued operations until the date of disposal and the gains or losses net of taxes realized on the disposals of these operations. In addition, cash flows generated by the discontinued operations are reported, by type of operation, on a separate line in the consolidated statement of cash flows for the relevant periods.

4.1.4 Intragroup transactions

All intragroup transactions in the balance sheet and income statement are eliminated in consolidation.

4.1.5 Translation of the financial statements of foreign companies

The consolidated financial statements are presented in euros, which is Compagnie de Saint-Gobain's functional and presentation currency.

Assets and liabilities of subsidiaries outside the Eurozone are translated into euros at the closing exchange rate, while income and expense items are translated using the average exchange rate for the period.

The Group's share of any translation gains or losses is included in equity under "Cumulative translation adjustments" until the assets or liabilities and all foreign operations to which they relate are sold, liquidated or deconsolidated. In this case, these translation differences are either taken to the income statement, if the transaction results in a loss of control, or recognized directly in the statement of changes in equity, if the change in minority interests does not result in a loss of control.

4.1.6 Foreign currency transactions

Expenses and income from operations in currencies other than the Company's functional currency are translated at the exchange rates prevailing at the transaction date. Assets and liabilities denominated in foreign currencies are translated at the closing rate and any exchange differences are recorded in the income statement. However, exchange differences relating to loans and borrowings between consolidated Group companies are recorded in equity, net of tax, under "Cumulative translation adjustments", as they are in substance an integral part of the net investment in a foreign subsidiary.

4.1.7 Hyperinflation

Under IAS 29, "Financial Reporting in Hyperinflationary Economies", financial statements prepared based on historical cost must be restated. This involves applying a general price index that enables the financial statements to be presented in the measuring unit in force at the reporting date. All non-monetary assets and liabilities must therefore be adjusted for inflation in order to reflect changes in purchasing power at the reporting date. Similarly, the income statement is adjusted for inflation during the period. Monetary items do not need to be restated as they already reflect purchasing power at the reporting date.

Argentina

Argentina has been classified as a hyperinflationary economy since July 1, 2018. IAS 29 therefore applies to entities using the Argentine peso as their functional currency (based on the table of indices issued by FACPCE).

Lebanon

Lebanon has been classified as a hyperinflationary economy since October 2020. As from December 31, 2020, IAS 29 is therefore applicable to entities using the Lebanese pound as their functional currency.

The Group's exposure to Lebanon is not material, as sales and total non-current assets in the country represent less than 1% of the Group's consolidated data.

Turkey

Since February 2022, Turkey has had a three-year cumulative inflation rate above 100% and was therefore included in the list of hyperinflationary economies in March 2022. The Group's exposure to Turkey is not material, as sales and total non-current assets in the country represent less than 1% of the Group's consolidated data.

4.2 Changes in Group structure

Significant changes in the Group's structure during 2022 and 2021 are presented below and a list of the main consolidated companies at December 31, 2022 is provided in note 16, p. 326.

4.2.1 Transactions carried out in 2022

In 2022, Saint-Gobain acquired 36 consolidated companies for a total purchase price of €3,712 million. The Group also sold 19 consolidated companies for a net sale price of €539 million.

Main acquisitions in 2022

In 2022, acquisitions represented full-year sales of €1,866 million and EBITDA of approximately €300 million.

- On January 2, 2022, Saint-Gobain completed the acquisition of Igland Industrier AS, a manufacturer of prefabricated garages for villas, which also has an assembly services network in Norway.
- On January 7, 2022, Saint-Gobain completed the acquisition of Fischer Ag, a Swiss kitchen and household appliance installation and repair company.
- On February 4, 2022, Saint-Gobain completed the acquisition of Rockwool India Pvt Ltd, a major player in the production of stone wool in India. This followed the announcement on December 21, 2021 of the agreement signed by Saint-Gobain with the Alghanim group.
- On April 1, 2022, Saint-Gobain finalized the acquisition of Impac, a leading player in the construction chemicals market in Mexico. This acquisition consolidates the Group's leadership in Latin America while accelerating its growth in the region by enriching its range of solutions for light and sustainable construction.
- On May 12, 2022, Saint-Gobain announced the acquisition of Global SFC, a major player in nano-ceramic window film coatings located in South Korea. The acquisition, which closed on April 22, 2022, will enhance the insulating properties of the Solar Gard film line, a world leader in innovative solar control and surface protection film technologies for the sustainable construction and mobility markets.

- On the same date, Saint-Gobain announced the acquisition of Monofrax LLC, a leading regional player in fused cast refractories in the United States. This acquisition, which closed on April 20, 2022, will enhance Saint-Gobain's global footprint and enable further localization of refractory production close to the end-customer. It will enable the development of high-end glass melting applications and further decarbonization of light metal smelting processes.
- On August 1, 2022, Saint-Gobain announced that it had completed the acquisition of Kaycan on July 29, 2022. Kaycan is a family-owned manufacturer and distributor of exterior building materials in Canada and the United States. Thanks to its leading position on siding in Canada, this acquisition reinforces Saint-Gobain's worldwide leadership in light and sustainable construction by becoming the top siding player in Canada and enlarging its vinyl offer across the United States.

  The acquisition of Kaycan represents pro forma full-year sales of €409 million and €70 million in EBITDA for 2022.
- On September 27, 2022, Saint-Gobain completed the acquisition of GCP Applied Technologies, a major global player in construction chemicals. Offering highly complementary geographic and commercial footprints with Chryso, the acquisition of which was completed in September 2021, GCP represents a unique opportunity for Saint-Gobain to establish a leading worldwide presence in the growing construction chemicals sector, and furthers the Group's strategy as a worldwide leader in light and sustainable construction.

  The acquisition of GCP Applied Technologies represents pro forma full-year sales of €952 million and €162 million in EBITDA for 2022.
- Saint-Gobain completed the acquisition of Matchem in Brazil on December 22, 2022. Together with Quartzolit, a leading mortars company, TekBond, a specialist in sealants and adhesives, and the recently acquired GCP Applied Technologies, Matchem rounds out Saint-Gobain's construction chemicals line-up with a Brazilian market leader boasting 24 production sites. This acquisition will allow Saint-Gobain to strengthen its position in construction chemicals, in particular concrete admixtures which play a key role in the decarbonization of the construction industry. Matchem will be consolidated in 2023.

The process of identifying and measuring at fair value the assets acquired and liabilities assumed within the scope of the acquisitions carried out in 2022 began during the year and will be finalized within 12 months of each acquisition date.

The Group completed the fair value measurement of each major category of Chryso assets acquired and liabilities assumed in the first half of 2022. The amounts allocated to customer relationships and brands represent €326 million and €174 million, respectively, bringing goodwill to €493 million following allocation of the purchase price.

The table below shows the fair value measurement of each major category of assets acquired and liabilities assumed at December 31, 2022:

(in EUR millions)	GCP Applied Technologies	Kaycan	Other newly-consolidated companies	Total at the acquisition date
Intangible assets	811	505	375	1,691
Property, plant and equipment, and right-of-use assets	264	5	98	367
Financial assets and other non-current assets	51	1	24	76
NON-CURRENT ASSETS	**1,126**	**511**	**497**	**2,134**
Inventories	165	138	47	350
Trade accounts receivable	190	78	36	304
Other receivables	30	4	14	48
Cash and cash equivalents	213	27	24	264
CURRENT ASSETS	**598**	**247**	**121**	**966**
Non-current portion of long-term debt and lease liabilities	53		14	67
Non-current portion of provisions and other liabilities	261	140	104	505
NON-CURRENT LIABILITIES	**314**	**140**	**118**	**572**
Current portion of long-term debt and lease liabilities	7		8	15
Current portion of provisions and other liabilities	19			19
Trade accounts payable	109	49	43	201
Other payables	176	21	39	236
Short-term debt and bank overdrafts	155	17	14	186
CURRENT LIABILITIES	**466**	**87**	**104**	**657**
TOTAL FAIR VALUE OF NET ASSETS ACQUIRED	**944**	**531**	**396**	**1,871**
Acquisition cost of shares	2,430	886	313	3,629
Minority interests	4		4	8
GOODWILL	**1,490**	**355**	**(79)**	**1,766**

Main disposals in 2022

In 2022, disposals represent full-year sales of €1,043 million.

The main companies deconsolidated in 2022 are summarized below:

- On January 10, 2022, Saint-Gobain completed the sale of Glassolutions, its regional glass processing business in Denmark, to German glassmaker Semcoglas Holding GmbH.
- On February 4, 2022, Saint-Gobain announced the sale of its regional glass processing business Baltiklaas Oü in Estonia to Polar Glass Oü, a subsidiary of Barrus AS.
- On February 17, 2022, Saint-Gobain signed an agreement for the sale of CTD Tile Group, its specialist tiling distributor in the United Kingdom, to Aurelius Investments, and an agreement for the sale to Wolseley UK of Ideal Bathrooms, the Group's remaining United Kingdom distribution brand specialized in plumbing, heating and sanitaryware.
- On February 28, 2022, Saint-Gobain completed the sale of three of its remaining four United Kingdom distribution brands specializing in plumbing, heating and sanitaryware (Neville Lumb, DHS and Bassetts) to Wolseley UK.
- On May 12, 2022, Saint-Gobain announced the sale of International Decorative Surfaces (IDS), its specialist flooring, worktop and laminate distribution business in the United Kingdom, to Chiltern Capital.
- On the same date, Saint-Gobain signed binding agreements for the divestment of two glass processing facilities specialized in the manufacture of double glazing in the United Kingdom.
- On May 27, Saint-Gobain announced the sale of its Austrian glass processing subsidiaries, Eckelt Glas and Glas Ziegler, to the privately-owned German group Aequita, as well as the sale of its holding in the joint venture Glaskontor Erfurt – a glass processing business in Germany – to the Caleoglas group.
- On September 2, 2022, Saint-Gobain announced that it had closed the sale of the Saint-Gobain Glassolutions Grand Ouest glass processing business to a group of private investors, led by former Saint-Gobain managers.
- On September 30, 2022, Saint-Gobain finalized the sale of Protrae, its wood processing and distribution business in Denmark, to its main customer Jem & Fix.
- On the same date, Tadmar, a distribution brand specialized in plumbing, heating and sanitaryware products in Poland, was sold to Polish company 3W.
- On December 1, 2022, Saint-Gobain completed the sale of its worldwide Crystals and Detectors business to a consortium led by SK Capital Partners associated with Edgewater Capital Partners, both US private equity funds with expertise in advanced materials.
- On December 29, 2022, the Group finalized the sale of certain ceramic activities for the traditional steel market. These activities, comprising the Vinhedo site in Brazil and the Latrobe site in the United States, were sold to the Japanese group Shinagawa Refractories Corporation.

These disposals are part of Saint-Gobain's continued portfolio optimization strategy to enhance the Group's growth and profitability profile in line with the objectives of its “Grow & Impact” plan.

4.2.2 Transactions carried out in 2021

In 2021, Saint-Gobain acquired 31 consolidated companies for a total purchase price of €985 million. The Group also sold 12 consolidated companies for a sale price of €187 million.

The main transactions are summarized below:

- On February 15, 2021, Saint-Gobain finalized the disposal of Saniplus in Spain to the Spanish group Stonewall Ventures SL with the sale of Saniplast, its civil engineering materials distribution business. This follows the disposal of Sanigrif, its plumbing, heating and sanitary distribution business, at the end of 2020.
- On February 19, 2021, in accordance with the agreement to strengthen its partnership with El Volcan in Argentina and Peru, Saint-Gobain acquired El Volcan Soluciones Constructivas, which specializes in the production and sale of plasterboard in Peru.
- On March 15, 2021, Saint-Gobain announced that it had acquired a majority stake in Brüggemann, one of Germany's leading companies in the manufacture and installation of turnkey modular timber construction solutions for new construction and renovation in Germany.
- On May 28, 2021, Saint-Gobain sold La Plataforma – its construction materials distribution business in Spain – to the Bigmat group, and on July 5, 2021 completed the disposal of its Discesur banner to the Jorge Fernandez group in association with the Terrapilar group.
- On May 31, 2021, Saint-Gobain announced that it had sold Saint-Gobain Glassolutions Objekt-Center, which specializes in glass processing operations as part of the Glassolutions network in Germany, to the German privately-owned Aequita group based in Munich.
- After having entered into exclusive negotiations on November 9, 2020, Saint-Gobain announced on June 1, 2021 that it had finalized the sale of Lapeyre and its subsidiaries in France to Mutares, a company listed in Frankfurt.
- On July 12, 2021, Saint-Gobain signed an agreement to sell Graham, its plumbing, heating and sanitaryware specialist distribution business in the United Kingdom, to UK Plumbing Supplies and Wolseley.
- On July 15, 2021, Saint-Gobain completed the acquisition of Russia's Scientific and Production Company Adhesive LLC, a specialist company that controls the entire polyurethane and epoxy production cycle in order to develop, manufacture and supply a wide range of high quality products for the construction, transportation and aerospace markets.
- On July 28, 2021, Saint-Gobain completed the sale of PAM China assets and liabilities (SG Pipelines Co. Ltd), further to the signature on April 16, 2021 of an agreement for the sale in second-half 2021 of 67% of its Pipe business in China to a consortium led by local management.
- After entering into exclusive negotiations on January 4, 2021, on July 30, 2021 Saint-Gobain completed the sale of Saint-Gobain Distribution The Netherlands (SGD NL), operating in the Netherlands under the Raab Karcher, Tegelgroep Nederland, Galvano and Van Keulen brands, to the BME group (Building Materials Europe).

- On August 31, 2021, the Group announced the sale of French flat glass processing and shaping company Aurys to a former Saint-Gobain manager.
- On August 31, 2021, Saint-Gobain also announced that it had sold German tempered glassmaker GVG Deggendorf to the Swiss Arbonia group.
- On September 1, 2021, Saint-Gobain acquired Netherlands-based Equflow BV, a leading designer and supplier of flowmeters for the single-use bioprocessing market. This acquisition expands the Group's range of single-use fluid management solutions.
- On September 29, 2021, in line with its May 20, 2021 announcement, Saint-Gobain announced that it had completed the acquisition of Chryso, a leading global player on the construction chemicals market thanks to its comprehensive additives solutions for sustainable construction. This acquisition, perfectly in line with Saint-Gobain's strategy to position itself as a world leader in sustainable construction, allows the Group to strengthen its presence on the growing construction chemicals market, while benefiting from cost and sales synergies.
- On September 30, 2021, Saint-Gobain completed the acquisition of Romanian group Duraziv specializing in the production of adhesives and other value-added construction chemicals solutions.
- On September 30, 2021, in line with its May 11, 2021 announcement, Saint-Gobain completed the acquisition of the French company Panofrance, a specialist distributor of timber and panels for the construction and furnishing industries.
- On October 1, 2021, Saint-Gobain acquired a majority stake in Abe Mauritius, a leading supplier of waterproofing, admixtures and technical mortar solutions and a Chryso brand licensee.
- On October 4, 2021, Saint-Gobain announced that it had completed the acquisition of Raboni Normandie, a multi-specialist distributor of construction materials on the dynamic home renovation and energy efficiency market in France.
- On November 10, 2021, Saint-Gobain announced that it had acquired a minority stake in Livspace, a digital company focused on the growing residential housing markets in India and South-East Asia.
- On November 15, 2021, the Group announced that it had acquired a gypsum plant in Nairobi, Kenya. This will be Saint-Gobain's first production site in Kenya, where it will also invest in a construction chemicals production line.

At December 31, 2021, acquisitions represented full-year sales of around €816 million and €123 million in EBITDA. Disposals represented full-year sales of around €1,856 million, of which €641 million relates to the disposal of Lapeyre.

4.3 Assets and liabilities held for sale

On December 12, 2022, Saint-Gobain announced that it had signed an agreement to sell all of its United Kingdom merchanting brands – including the builders and timber merchant Jewson – to the Stark group. The transaction, which is not subject to any external conditions, is expected to close in the first quarter of 2023, following which Saint-Gobain will no longer have any distribution businesses in the United Kingdom.

These disposals are part of Saint-Gobain's portfolio optimization strategy, which is designed to improve the Group's growth and profitability profile.

Since the assets and liabilities held for sale meet the qualifying criteria (see note 4.1.3, p. 279), the United Kingdom distribution companies' balance sheets were combined and measured as assets and liabilities held for sale in the consolidated balance sheet at December 31, 2022, in accordance with IFRS 5.

These entities in the process of being sold were not considered as discontinued operations within the meaning of IFRS 5 as they do not represent a major line of business for the Group.

However, all companies classified as assets and liabilities held for sale in 2021 were disposed of in 2022.

Assets and liabilities held for sale break down as follows:

(in EUR millions)	Dec. 31, 2022	Dec. 31, 2021
Intangible assets, property, plant and equipment, right-of-use assets and other non-current assets	529	66
Inventories, trade accounts receivable and other receivables	851	159
Cash and cash equivalents	14	2
ASSETS HELD FOR SALE	**1,394**	**227**
Provisions for pensions and other employee benefits	(1)	3
Other current and non-current liabilities and provisions	50	11
Trade accounts payable, other payables and other current liabilities	603	98
Debt and bank overdrafts	333	55
LIABILITIES HELD FOR SALE	**985**	**167**
NET ASSETS (LIABILITIES) HELD FOR SALE	**409**	**60**

4.4 Changes in the number of consolidated companies

At December 31, 2022, the number of consolidated companies was as follows:

	France	Outside France	Total
Fully consolidated companies			
At December 31, 2021	**126**	**634**	**760**
Newly consolidated companies	10	108	118
Merged companies	(15)	(20)	(35)
Deconsolidated companies	(3)	(16)	(19)
At December 31, 2022	**118**	**706**	**824**
Equity-accounted companies and joint arrangements			
At December 31, 2021	**3**	**85**	**88**
Newly consolidated companies		6	6
Deconsolidated companies		(6)	(6)
At December 31, 2022	**3**	**85**	**88**
TOTAL AT DECEMBER 31, 2021	**129**	**719**	**848**
TOTAL AT DECEMBER 31, 2022	**121**	**791**	**912**

4.5 Off-balance sheet commitments related to companies within the scope of consolidation

Non-cancelable purchase commitments represented approximately €50 million at December 31, 2022 and include the acquisition of IDP Chemicals in Egypt and Tèrmica San Luis in Argentina.

NOTE 5 INFORMATION CONCERNING THE GROUP'S OPERATING ACTIVITIES

5.1 Income statement items

5.1.1 Revenue recognition

Revenue generated by the sale of goods or services is recognized net of rebates, discounts and sales taxes when control of the goods or services has been transferred to the customer. Revenue generated by the sale of goods is primarily recognized at the time the goods are delivered. Revenue generated by the sale of services is recognized when the services have been rendered, or based on the stage of completion of the services, as calculated based on costs incurred. Similarly, within the Distribution entities, estimated returns are recognized as a deduction from revenue (sales) and reclassified within inventories for their net carrying amount, since there is a possibility that goods will be returned within the allotted timeframe. A liability relating to future refunds for goods returned is also recognized.

Revenue generated under construction contracts is accounted for by the Group's companies on a percentage-of-completion basis, as calculated based on costs incurred. The related costs are expensed as incurred. When the outcome of a construction contract cannot be estimated reliably, contract revenue is recognized to the extent of contract costs incurred that it is probable will be recovered. When it is probable that total contract costs will exceed total contract revenue, the expected loss is recognized as an expense immediately.

Construction contract revenues are not material in relation to total consolidated sales.

5.1.2 Operating income

Operating income is a measure of the performance of the Group's different reporting segments and has been used by the Group as its key external and internal management indicator for many years. Foreign exchange gains and losses are included in operating income, as are changes in the fair value of financial instruments that do not qualify for hedge accounting when they relate to operating items. The share of income of core business equity-accounted companies is also posted under operating income.

Supplier discounts granted to entities in the Distribution business are included in operating income as a reduction of cost of sales. Contractual supplier discounts are customary practice in the industrial goods distribution sector. These discounts are mostly calculated by applying a contractually guaranteed rate by product type to volumes purchased. The calculation is made automatically, based on the supplier invoices. Consequently, little judgment is needed when determining the amounts to be recognized in the income statement for these discounts. Other discounts are calculated based on a step mechanism linked to specified targets, whereby the percentage discount increases as the entity achieves the various targets over a given period. In this case, judgment is required based on historical data, past performance and future trends in order to determine the discount to be recognized in the income statement. Such judgment is exercised in a prudent manner and consistently from one period to the next.

5.1.3 Business income

Business income includes all income and expenses other than financial income and expense, the Group's share in net income of non-core business equity-accounted companies, and income taxes.

Business income is detailed by type below:

(in EUR millions)	2022	2021
SALES	**51,197**	**44,160**
Personnel expenses:		
Salaries and payroll taxes [1]	(8,995)	(8,296)
Share-based payments [2]	(43)	(58)
Pensions and employee benefit obligations [2]	(189)	(249)
Depreciation and amortization of property, plant and equipment, intangible assets and right-of-use assets [3]	(2,048)	(1,934)
Share in net income of core business equity-accounted companies	61	52
Other [4]	(34,646)	(29,168)
OPERATING INCOME	**5,337**	**4,507**
Other business income	245	176
Other business expense [3]	(1,000)	(747)
OTHER BUSINESS INCOME AND EXPENSE	**(755)**	**(571)**
BUSINESS INCOME (EXPENSE)	**4,582**	**3,936**

(1) *The year-on-year increase in salaries and payroll taxes in 2022 is attributable to bullish trading during the year and an unfavorable exchange rate effect.*

(2) *Share-based payments (IFRS 2 expense) and changes in employee benefit expenses are detailed in note 6, p. 291.*

(3) *Total depreciation and amortization of property, plant and equipment, intangible assets and right-of-use assets, along with amortization charged against intangible assets within the scope of purchase price accounting (PPA), represented €2,164 million in 2022 versus €1,986 million in 2021.*

(4) *The "Other" operating income line relates to cost of sales, supplier discounts and selling expenses for Distribution entities, and to transport costs, raw materials costs, and other production costs for the other entities. This item also includes research and development expenditure recorded under operating expenses, amounting to €520 million in 2022 (2021: €447 million).*

5.1.4 Other business income and expense

Other business income and expense mainly include changes in provisions for claims and litigation (excluding those arising in the ordinary course of operations) and environmental matters, disposal gains and losses, asset impairment, amortization charged against intangible assets within the scope of purchase price accounting, restructuring costs incurred upon the disposal or discontinuation of operations and the costs of workforce reduction measures.

Other business income and expense can be analyzed as follows:

(in EUR millions)	2022	2021
Impairment of assets [(1)]	(299)	(213)
Amortization of intangible assets related to PPA [(2)]	(116)	(52)
Other business expense [(3)]	(323)	(243)
Impairment of assets and other business expenses	**(738)**	**(508)**
Gains on disposals of non-current assets	**245**	**176**
GAINS AND LOSSES ON DISPOSALS, ASSET IMPAIRMENT, IMPACT OF CHANGES IN GROUP STRUCTURE	**(493)**	**(332)**
NON-OPERATING INCOME AND EXPENSE [(4)]	**(262)**	**(239)**
OTHER BUSINESS INCOME AND EXPENSE	**(755)**	**(571)**

(1) *The "Impairment of assets" line includes the impairment of goodwill, other intangible assets, property, plant and equipment, right-of-use assets, assets held for sale and other assets and mostly concerns the Distribution activities in the United Kingdom in 2022.*

(2) *Amortization charged against brands and customer lists is included on a separate line within "Impairment of assets and other business expenses" together with other gains and losses arising on business combinations which are not taken into account when determining the performance of the Group's operating segments.*

(3) *As in 2021, other business expense mainly includes capital losses on assets divested or scrapped, acquisition fees and contingent consideration incurred in connection with business combinations;*

(4) *Non-operating income and expense mainly include claims-related expenses and restructuring costs.*

5.2 Segment information

In accordance with IFRS 8, segment information reflects the Group's internal organization as presented to management. The Group has chosen to present segment information in line with its internal reporting. Segment assets and liabilities include net property, plant and equipment, working capital, goodwill and net other intangible assets, after deducting deferred taxes on brands and land, and assets and liabilities held for sale. Capital expenditure corresponds to acquisitions of property, plant and equipment and does not include right-of-use assets.

The Group is organized into five reporting units: four regional businesses and a global High Performance Solutions unit. Segment information is presented for:

- High Performance Solutions (HPS), which is organized by market for global customers, i.e., Mobility, Life Sciences, Construction Industry and Industry.

And for four regions:

- Northern Europe, comprising the Nordic countries, United Kingdom, Ireland, Switzerland, Germany, Austria, Eastern Europe and Russia;
- Southern Europe – Middle East (ME) & Africa, comprising France, Benelux, Mediterranean, Middle East and Africa;
- Americas, comprising North America and Latin America;
- Asia-Pacific, comprising the Asia region and India;
- Other, comprising the Group's various holding companies.

Segment information for 2022 and 2021 is as follows:

2022

(in EUR millions)	High Performance Solutions [(2)]	Northern Europe	Southern Europe [(2)] – ME & Africa	Americas [(2)]	Asia-Pacific	Other [(1)]	Group Total
Sales	9,648	16,413	15,198	9,064	2,132	(1,258)	51,197
Operating income (loss)	1,155	1,279	1,219	1,462	257	(35)	5,337
Business income (loss)	1,047	951	1,145	1,281	249	(91)	4,582
Share in net income of equity-accounted companies	2	13	12	30	6	3	66
Operating depreciation and amortization	383	620	587	305	104	49	2,048
Impairment of assets	4	215	7	52	7	0	285
EBITDA	1,371	1,872	1,761	1,740	360	19	7,123
Acquisitions of property, plant and equipment and intangible assets [(3)]	406	445	434	430	198	27	1,940
Goodwill, net [(4)]	3,162	4,207	2,067	3,130	292	0	12,858
Brands, customer relationships and intellectual property [(4)]	1,014	1,048	503	1,058	0	0	3,623
Total segment assets and liabilities [(4)]	8,165	9,006	7,441	7,221	1,431	258	33,522

(1) *"Other" corresponds to the elimination of intragroup transactions for internal sales, and holding company transactions for the other captions.*

(2) *France and United States sales represent €12,341 million and €8,135 million, respectively. Segment assets for France and the United States represent €8,333 million and €7,535 million, respectively.*

(3) *Capital expenditure does not include right-of-use assets.*

(4) *"Net goodwill" and "Brands, customer relationships and intellectual property" do not include assets relating to companies held for sale (assets and liabilities relating to companies held for sale are however included in the line "Total segment assets and liabilities").*

2021

(in EUR millions)	High Performance Solutions [(2)]	Northern Europe	Southern Europe [(2)] – ME & Africa	Americas [(2)]	Asia-Pacific	Other [(1)]	Group Total
Sales	7,511	15,028	14,044	6,815	1,787	(1,025)	44,160
Operating income (loss)	931	1,100	1,166	1,123	211	(24)	4,507
Business income (loss)	712	966	1,019	1,012	252	(25)	3,936
Share in net income of equity-accounted companies	1	14	1	32	6	2	56
Operating depreciation and amortization	332	623	575	262	91	51	1,934
Impairment of assets	7	90	78	11	2	0	188
EBITDA	1,098	1,709	1,715	1,358	302	20	6,202
Acquisitions of property, plant and equipment and intangible assets [(3)]	346	424	395	276	134	16	1,591
Goodwill, net [(4)]	2,697	4,239	2,038	1,924	283	0	11,181
Brands, customer relationships and intellectual property [(4)]	270	1,050	490	389	0	0	2,199
Total segment assets and liabilities [(4)]	6,736	9,265	7,224	4,940	1,383	328	29,876

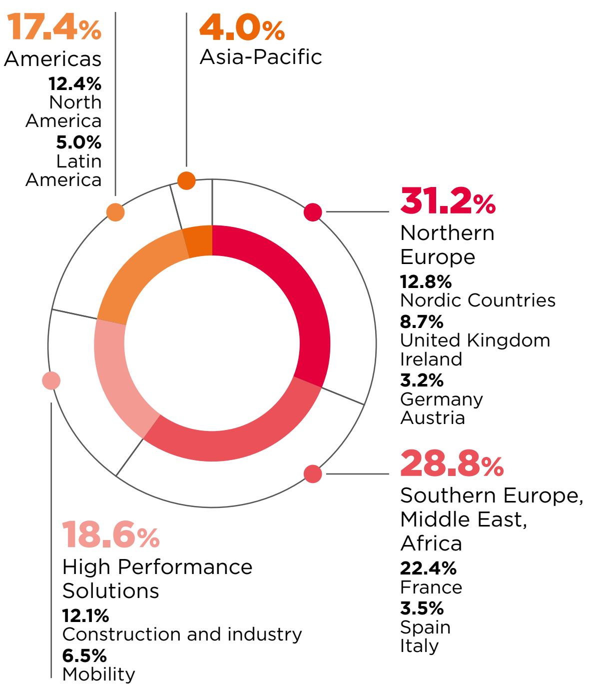
(1) *"Other" corresponds to the elimination of intragroup transactions for internal sales, and holding company transactions for the other captions.*

(2) *France, United States and United Kingdom sales represent €11,346 million, €6,187 million and €4,441 million, respectively. France, United States and United Kingdom segment assets represent €7,503 million, €5,581 million and €2,742 million, respectively.*

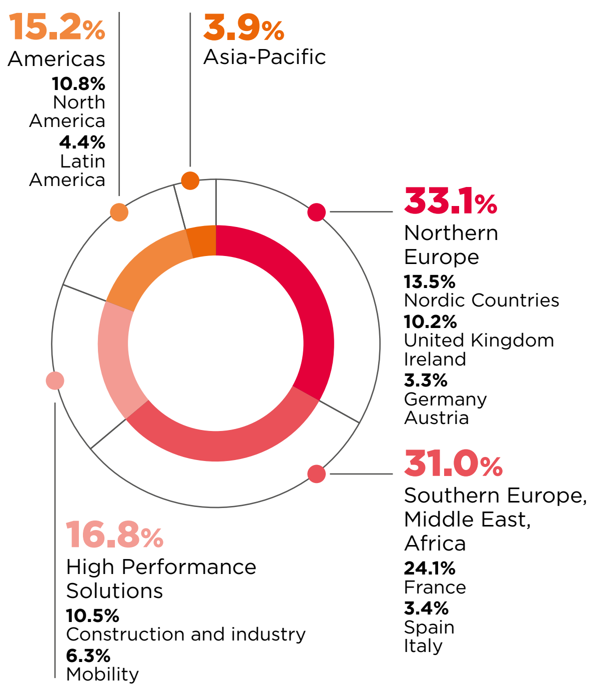
(3) *Capital expenditure does not include right-of-use assets.*

(4) *"Net goodwill" and "Brands, customer relationships and intellectual property" do not include assets relating to companies held for sale (assets and liabilities relating to companies held for sale are however included in the line "Total segment assets and liabilities").*

In 2022, the breakdown of sales by segment and for the Group's main countries is as follows:



In 2021, the breakdown of sales by segment was as follows:



5.3 Performance indicators

5.3.1 EBITDA

EBITDA represents operating income plus depreciation and amortization of property, plant and equipment, intangible assets and right-of-use assets, as well as non-operating income and expense.

EBITDA amounted to €7,123 million in 2022 (2021: €6,202 million), calculated as follows:

(in EUR millions)	2022	2021
Operating income	5,337	4,507
Depreciation/amortization of property, plant and equipment and intangible assets	1,332	1,255
Depreciation of right-of-use assets	716	679
Non-operating income and expense	(262)	(239)
EBITDA	**7,123**	**6,202**

5.3.2 Free cash flow

Free cash flow (FCF) represents the surplus cash generated from the entity's operations. Free cash flow represents EBITDA plus net financial income/(expense), income tax and changes in working capital, less depreciation of right-of-use assets and investments in property, plant and equipment and intangible assets excluding additional capacity investments.

5.3.3 Operating free cash flow

Operating free cash flow (OFCF) represents the surplus cash generated from the entity's operations and is calculated as operating income plus non-operating income and expense and changes in working capital, less operating depreciation and amortization, investments in property, plant and equipment and intangible assets, and right-of-use assets.

5.3.4 Return on capital employed

Return on capital employed (ROCE) corresponds to annualized operating income adjusted for changes in the scope of consolidation (based on 12 months' of operating income for acquired companies and with no operating income taken into account for divested companies), expressed as a percentage of total assets at the year end. Total assets include net property, plant and equipment, working capital, net goodwill, other intangible assets and assets and liabilities held for sale, but exclude deferred tax assets arising on non-amortizable brands, customer relationships and land.

5.3.5 Recurring net income

Recurring net income corresponds to income after tax and minority interests but before disposal gains or losses, asset impairment, material non-recurring provisions and the related tax and non-controlling interests.

Recurring net income totaled €3,335 million in 2022 (2021: €2,815 million). Based on the weighted average number of shares outstanding at December 31 (514,372,413 shares in 2022 and 526,244,506 shares in 2021), recurring earnings per share amounted to €6.48 in 2022 and €5.35 in 2021.

The difference between net income and recurring net income corresponds to the following items:

(in EUR millions)	2022	2021
GROUP SHARE OF NET INCOME	**3,003**	**2,521**
Less:		
Gains and losses on disposals of assets	(42)	(7)
Impairment of assets and other	(333)	(272)
Changes in provisions for non-recurring items	(16)	0
Impact of non-controlling interests	2	(1)
Tax on disposal gains and losses, asset impairment, non-recurring provisions and write-downs of deferred taxes on tax loss carry-forwards	57	(14)
GROUP SHARE OF RECURRING NET INCOME	**3,335**	**2,815**

5.4 Working capital

Working capital can be analyzed as follows:

(in EUR millions)	Dec. 31, 2022	Dec. 31, 2021
INVENTORIES, NET	**7,219**	**6,598**
TRADE ACCOUNTS RECEIVABLE, NET	**5,178**	**5,104**
Other operating receivables	1,337	1,424
Other non-operating receivables	113	80
OTHER RECEIVABLES, NET	**1,450**	**1,504**
CURRENT TAX RECEIVABLE	**76**	**166**
TRADE ACCOUNTS PAYABLE	**7,266**	**6,903**
Other operating payables	4,428	4,153
Other non-operating payables	650	655
OTHER PAYABLES	**5,078**	**4,808**
CURRENT TAX LIABILITIES	**263**	**236**
Operating working capital	2,040	2,070
Non-operating working capital (including current tax receivable and liabilities)	(724)	(645)
WORKING CAPITAL	**1,316**	**1,425**

5.4.1 Inventories

Inventories are stated at the lower of cost and net realizable value. The cost of inventories includes purchase costs (net of supplier discounts), processing costs and other costs incurred in bringing the inventories to their present location and condition. Cost is generally determined using the weighted-average cost method, and in some cases the First-In-First-Out (FIFO) method. Inventory costs may also include the transfer from equity of any gains/losses on qualifying cash flow hedges of foreign currency purchases of raw materials. Net realizable value is the selling price in the ordinary course of business, less estimated completion and selling costs. No account is taken in the inventory valuation process of the impact of below-normal capacity utilization rates.

At December 31, 2022 and 2021, inventories were as follows:

(in EUR millions)	Dec. 31, 2022	Dec. 31, 2021
Gross value		
Raw materials	2,152	1,726
Work in progress	446	367
Finished goods	5,246	5,033
GROSS INVENTORIES	**7,844**	**7,126**
Provisions for impairment		
Raw materials	(233)	(191)
Work in progress	(17)	(16)
Finished goods	(375)	(321)
TOTAL PROVISIONS FOR IMPAIRMENT	**(625)**	**(528)**
INVENTORIES, NET	**7,219**	**6,598**

The net value of inventories was €7,219 million at December 31, 2022 compared with €6,598 million at December 31, 2021. Impairment losses on inventories recorded in the 2022 income statement totaled €332 million (2021: €279 million). Reversals of impairment losses on inventories amounted to €222 million in 2022 (2021: €219 million).

5.4.2 Operating and non-operating receivables and payables

Trade accounts receivable and payable and other receivables and payables are stated at their carrying amount, which approximates their fair value as they generally have maturities of less than three months. Provisions for impairment are booked to cover the risk of total or partial non-recovery, within the limit of expected credit losses.

The Group deems that its exposure to concentrations of credit risk is limited due to its diversified business line-up, broad customer base and global presence. Past-due trade receivables are regularly monitored and analyzed, and impairment losses recognized are adjusted where appropriate.

The Group has various securitization and factoring programs for its trade receivables. Receivables transferred under some of these programs continue to be shown on the balance sheet with a corresponding liability in short-term debt if, based on an analysis of the contracts, the risks associated with the receivables are not transferred in substance to the financing institutions (further information is provided in note 10.3.8, p. 316 and 10.3.10, p. 316).

Trade and other accounts receivable

Trade and other accounts receivable can be analyzed as follows:

(in EUR millions)	Dec. 31, 2022	Dec. 31, 2021
Gross value	5,597	5,449
Provisions for impairment	(419)	(345)
TRADE ACCOUNTS RECEIVABLE, NET	**5,178**	**5,104**
Discounts obtained from and advances granted to suppliers	529	636
Prepaid payroll taxes	32	35
Other prepaid and recoverable taxes (other than income tax)	484	470
Miscellaneous operating receivables	299	289
Other non-operating receivables	113	81
Provision for impairment of other receivables	(7)	(7)
OTHER RECEIVABLES, NET	**1,450**	**1,504**

Receivables at December 31, 2022 were stable compared to end-2021.

The impact of movements in provisions and bad debt write-offs represented an expense of €119 million in 2022 versus an expense of €55 million in 2021.

Bad debt write-offs fell to €56 million from €78 million in 2021.

Trade accounts receivable at December 31, 2022 and 2021 are analyzed below by maturity:

	Gross value		Impairment		Net value	
(in EUR millions)	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2022	Dec. 31, 2021	Dec. 31, 2022	Dec. 31, 2021
TRADE ACCOUNTS RECEIVABLE NOT YET DUE	**4,612**	**4,616**	**(81)**	**(62)**	**4,531**	**4,554**
Less than 1 month	417	350	(38)	(29)	379	321
1-3 months	173	148	(42)	(30)	131	118
More than 3 months	395	335	(258)	(224)	137	111
TRADE ACCOUNTS RECEIVABLE PAST DUE	**985**	**833**	**(338)**	**(283)**	**647**	**550**
TRADE ACCOUNTS RECEIVABLE	**5,597**	**5,449**	**(419)**	**(345)**	**5,178**	**5,104**

Trade and other accounts payable

Trade and other accounts payable and accrued expenses can be analyzed as follows:

(in EUR millions)	Dec. 31, 2022	Dec. 31, 2021
TRADE ACCOUNTS PAYABLE	**7,266**	**6,903**
Downpayments received and rebates granted to customers	1,788	1,636
Payables to suppliers of non-current assets	472	439
Grants received	88	91
Accrued personnel expenses	1,497	1,439
Accrued taxes other than on income	442	403
Other operating payables	701	675
Other non-operating payables	90	125
OTHER PAYABLES	**5,078**	**4,808**

5.5 Off-balance sheet commitments related to operating activities

5.5.1 Non-cancelable purchase commitments

Non-cancelable purchase commitments include contractual commitments to purchase raw materials and services along with firm orders for property, plant and equipment and intangible assets.

		Payments due by period			
(in EUR millions)	Total 2022	Due within 1 year	Due in 1 to 5 years	Due beyond 5 years	Total 2021
Property, plant and equipment and intangible assets	115	39	19	57	129
Raw materials and energy	1,786	659	882	245	1,550
Services	324	121	192	11	155
TOTAL	**2,225**	**819**	**1,093**	**313**	**1,834**

5.5.2 Guarantee commitments

In some cases, the Group grants seller's warranties to the buyers of divested businesses. A provision is recognized whenever a risk is identified and the related cost can be estimated reliably. The Group also receives guarantees, amounting to €75 million at December 31, 2022 (December 31, 2021: €56 million).

5.5.3 Commercial commitments

The Group's commercial commitments are shown below:

		Commitment amounts by period			
(in EUR millions)	Total 2022	Due within 1 year	Due in 1 to 5 years	Due beyond 5 years	Total 2021
Security for borrowings	69	39	14	16	51
Other commitments given	255	58	50	147	224
TOTAL	**324**	**97**	**64**	**163**	**275**

Guarantees given to the Group in respect of receivables amounted to €81 million at December 31, 2022 (December 31, 2021: €75 million). At December 31, 2022, pledged assets represented €1,054 million (December 31, 2021: €1,095 million) and chiefly concerned non-current assets pledged in the United Kingdom.

5.5.4 Other commitments

A provision for greenhouse gas emissions allowances is recorded in the consolidated financial statements to cover any difference between the Group's emissions and the allowances granted.

The Saint-Gobain Group had 4.4 million tonnes of greenhouse gas emissions allowances at December 31, 2022, which will cover its actual CO_2 emissions for 2022. As a result, no provision has been recorded in this respect in the Group's financial statements.

NOTE 6 EMPLOYEES, PERSONNEL EXPENSES AND EMPLOYEE BENEFIT OBLIGATIONS

6.1 Employees of fully consolidated companies

Average headcount

	2022	2021
Managerial-grade employees	30,372	29,007
Administrative employees	69,623	69,398
Other employees	69,437	68,475
TOTAL AVERAGE NUMBER OF EMPLOYEES	**169,432**	**166,880**

Closing headcount

The total number of Group employees for fully consolidated companies was 170,714 employees at December 31, 2022 and 167,816 employees at December 31, 2021.

6.2 Management compensation

Direct and indirect compensation and benefits paid to the members of the Board of Directors and to the Group's senior management were as follows in 2022 and 2021:

(in EUR millions)	2022	2021
Directors' compensation	1.1	1.1
Direct and indirect compensation (gross)		
Fixed portion	9.6	8.7
Variable portion	5.7	5.5
Share-based payment expense (IFRS 2)	9.2	16.2
TOTAL EXCLUDING ESTIMATED COST OF PENSIONS AND OTHER EMPLOYEE BENEFIT OBLIGATIONS (IAS 19)	**25.6**	**31.5**
Estimated cost of pensions and other employee benefit obligations (IAS 19)*	7.2	5.7
TOTAL	**32.8**	**37.2**

* *The 2021 expense took into account the transfer of obligations to a third-party insurer falling within the scope of Article L. 137-11 of the French Social Security Code.*

Total gross compensation and benefits paid in 2022 to Saint-Gobain management by the French and foreign companies in the Group (excluding any long-term cash settled compensation) amounted to €15.3 million (2021: €14.2 million), including €5.7 million in gross variable compensation (2021: €5.5 million).

Provisions for pensions and other post-employment benefit obligations (defined benefit obligations [DBO] in respect of length-of-service awards and pensions) accruing to Group management totaled €29.2 million at December 31, 2022 (December 31, 2021: €31 million). The decrease in this item reflects changes during 2021 as well as the transfer of obligations to a third-party insurer falling within the scope of Article L. 137-11 of the French Social Security Code, as taken up in the PACTE Law.

6.3 Provisions for pensions and other employee benefits

6.3.1 Description of defined benefit plans

After retirement, some of the Group's former employees are eligible for pension benefits in accordance with the applicable laws and regulations in the respective countries in which the Group operates. There are also additional pension obligations in certain Group companies, both in France and in other countries.

The Group's obligation for the payment of pensions and length-of-service awards is determined at the end of the reporting period by independent actuaries using the projected unit credit method (taking into account changes in salaries until retirement) and the economic conditions in each country. This obligation may be financed by pension funds, with a provision recognized in the balance sheet for the unfunded portion.

When plan assets exceed the defined benefit obligation, the excess is recognized in other non-current assets under "Net pension assets". The asset ceiling corresponds to the maximum future economic benefit. Changes in the asset ceiling are recognized in equity.

Actuarial gains and losses result from changes in actuarial assumptions, experience adjustments and the difference between the funds' actual and estimated (calculated) rates of return. They are recognized against equity as and when they arise.

The interest cost of these obligations and the return on the related plan assets are measured by the Group using the discount rate applied to estimate the obligation at the beginning of the period, and are recognized as financial income or expense.

The Group's main defined benefit plans are described below.

In France, employees receive length-of-service awards on retirement based on years of service and the calculation methods prescribed in the applicable collective bargaining agreements.

In addition to length-of-service awards, there are three defined benefit plans, all of which are final salary plans. These plans were closed to new entrants by the companies concerned between 1969 and 1997. Effective March 1, 2012, a defined benefit plan complying with Article L. 137-11 of France's Social Security Code (*Code de la sécurité sociale*) was set up by Compagnie de Saint-Gobain. Pursuant to an order of July 4, 2019 issued in the wake of France's PACTE Law setting out an action plan for business growth and transformation, this plan was closed and any vested rights frozen at December 31, 2019. In 2021, two new plans were set up pursuant to Article L. 137-11-2 resulting from the PACTE Law, effective January 1, 2020. Under these plans, final payments are made to a third-party insurer who takes on responsibility for the liability.

Since 2021, the Group has applied the IFRIC agenda decision, "Attributing Benefit to Periods of Service", which changes the method for calculating obligations under certain defined benefit plans.

In Germany, retirement plans provide pensions and death and disability benefits for employees. These plans have been closed to new entrants since 1996. Since January 1997, new employees have been offered pension plans based on contributions financed jointly by employer and employee.

On January 1, 2019, the main pension plan in the Netherlands covering 80% of employees was converted into a defined contribution plan with a residual defined benefit plan for a transitional period of up to 12 years.

In the United Kingdom, retirement plans provide pensions as well as death and permanent disability benefits. These defined benefit plans – which are based on employees' average salaries over their final years of employment – have been closed to new entrants since 2001. In 2021, the legal structure of the plans was altered, resulting in the closure of the Building Distribution Section to future accrual as of January 1, 2022.

In the United States and Canada, the Group's defined benefit plans are final-salary plans. Since January 1, 2001, new employees have been offered a defined contribution plan.

In the United States and Spain, retired employees receive benefits other than pensions, mainly concerning healthcare. The Group's obligation under these plans is determined using the actuarial method and is covered by a provision recorded in the balance sheet.

Provisions for other long-term employee benefits cover all other employee benefits. These benefits primarily include long-service awards in France, jubilee awards in Germany, deferred compensation, provisions for social security benefits in the United States, and termination benefits in different countries. The related defined benefit obligation is generally calculated on an actuarial basis using the same rules as for pension obligations. Actuarial gains and losses relating to these benefits are recognized immediately in the income statement.

6.3.2 Actuarial assumptions used to measure defined benefit obligations and plan assets

Interest rate assumptions

Assumptions related to mortality, employee turnover and future salary increases take into account the economic conditions specific to each country and Group company. The discount rates are established by region or country based on observed bond rates at December 31, 2022.

For the Eurozone (including France), two discount rates were calculated for first-half 2022 based on the term of the plans using a yield curve model developed by consulting firm Mercer: one rate for plans with a term of 15 years or less and one for plans with a term of over 15 years (2021: one rate for plans with a term of 14 years or less and one for plans with a term of over 14 years).

The rates used in 2022 for the Group's main plans are the following:

	France		Eurozone (excluding France)		United Kingdom	United States
(in %)	Short-term plans	Long-term plans	Short-term plans	Long-term plans		
Discount rate	4.16%	4.23%	4.16%	4.23%	4.85%	5.20%
Salary increases	1.90% to 5.50%		2.70% to 3.00%		2.00% *	3.00%
Inflation rate	2.20%		2.20%		2.50%	2.50%

* *A cap applies to the reference salaries used to calculate benefit entitlements.*

The rates used in 2021 for the Group's main plans were the following:

	France		Eurozone (excluding France)		United Kingdom	United States
(in %)	Short-term plans	Long-term plans	Short-term plans	Long-term plans		
Discount rate	1.06%	1.42%	1.06%	1.42%	1.95%	2.70%
Salary increases	1.90% to 5.50%		2.10% to 2.30%		2.00% *	3.00%
Inflation rate	1.70%		1.60% to 2.00%		2.70%	2.20%

* *A cap applies to the reference salaries used to calculate benefit entitlements.*

As the above three regions account for substantially all of the Group's pension obligation, the revised actuarial assumptions (in particular discount and inflation rates) contributed to a decrease in the obligation, and therefore in the provision, by an amount of €3,589 million.

The actual return on plan assets for almost all plans was lower than expected, at €3,506 million, leading to an increase in the provision of the same amount. In addition, a €95 million rise in the asset ceiling, mainly in Switzerland, generated an increase in the provision in the same amount.

Sensitivity to assumptions

A 0.5-point decrease (increase) in the discount rate would lead to an increase (decrease) in defined benefit obligations of around €140 million for the United States plans, €100 million for the Eurozone plans and €270 million for the United Kingdom plans. A 0.5-point increase in the inflation rate would lead to an overall increase in defined benefit obligations of around €320 million.

The same assumptions concerning mortality, employee turnover and interest rates are used to determine the Group's defined benefit obligations for other long-term employee benefits. In the United States, retirees' healthcare costs are projected to rise between 4.00% and 5.99% per year (under 65 years of age), and between 2.26% and 6.56% per year (older than 65), depending on the age of the beneficiary. A 1-point increase in this rate would lead to an increase of around €13 million in the related projected benefit obligation.

6.3.3 Breakdown of and changes in pension and other post-employment benefit obligations

Carrying amount of provisions

Provisions for pension and other employee benefit obligations consist of the following:

(in EUR millions)	Dec. 31, 2022	Dec. 31, 2021
Pension obligations	1,110	1,263
Length-of-service awards	290	361
Post-employment healthcare benefits	183	255
TOTAL PROVISIONS FOR PENSIONS AND OTHER POST-EMPLOYMENT BENEFIT OBLIGATIONS	**1,583**	**1,879**
Healthcare benefits	27	26
Long-term disability benefits	8	8
Other long-term benefits	94	101
PROVISIONS FOR PENSIONS AND OTHER EMPLOYEE BENEFITS	**1,712**	**2,014**

Provisions for all other long-term benefits totaled €129 million at December 31, 2022 (€135 million at December 31, 2021).

The following table shows net obligations under pensions and other post-employment benefit plans, excluding other long-term benefits:

(in EUR millions)	Dec. 31, 2022	Dec. 31, 2021
Provisions for pensions and other post-employment benefit obligations – liabilities	1,583	1,879
Pension plan surpluses – assets	(569)	(894)
NET PENSION AND OTHER POST-EMPLOYMENT BENEFIT OBLIGATIONS	**1,014**	**985**

Analysis of obligations

At December 31, 2022, pension obligations and provisions for other post-employment benefit obligations break down by major geographic region as follows:

(in EUR millions)	France	Eurozone (excluding France)	United Kingdom	United States	Rest of the world	Net total
AVERAGE DURATION (in years)	**12**	**13**	**14**	**11**	**14**	**13**
Defined benefit obligations – funded plans	432	1,086	3,256	2,423	945	8,142
Defined benefit obligations – unfunded plans	225	39	0	162	194	620
Fair value of plan assets	(203)	(684)	(3,764)	(2,123)	(1,104)	(7,878)
DEFICIT (SURPLUS)	**454**	**441**	**(508)**	**462**	**35**	**884**
Asset ceiling	0	9	0	0	121	130
NET PENSION AND OTHER POST-EMPLOYMENT BENEFIT OBLIGATIONS	**454**	**450**	**(508)**	**462**	**156**	**1,014**

At December 31, 2021, pension obligations and provisions for other post-employment benefit obligations break down by major geographic region as follows:

(in EUR millions)	France	Eurozone (excluding France)	United Kingdom	United States	Rest of the world	Net total
AVERAGE DURATION (in years)	**14**	**17**	**20**	**13**	**16**	**17**
Defined benefit obligations – funded plans	584	1,496	5,471	2,941	1,029	11,521
Defined benefit obligations – unfunded plans	294	51	-	220	270	835
Fair value of plan assets	(249)	(848)	(6,261)	(2,915)	(1,129)	(11,402)
DEFICIT (SURPLUS)	**629**	**699**	**(790)**	**246**	**170**	**954**
Asset ceiling	-	-	2	-	29	31
NET PENSION AND OTHER POST-EMPLOYMENT BENEFIT OBLIGATIONS	**629**	**699**	**(788)**	**246**	**199**	**985**

Changes in provisions

Changes in pensions and other post-employment benefit obligations are as follows:

(in EUR millions)	Pension obligations	Fair value of plan assets	Asset ceiling	Net pension and other post-employment benefit obligations
AT JANUARY 1, 2022	**12,523**	**(10,370)**	**13**	**2,166**
Changes during the year				
Service cost	205			205
Interest cost/return on plan assets as per calculations	189	(160)		29
Employee contributions and plan administration costs		(3)		(3)
Past service cost	11			11
Plan curtailments/settlements	13			13
Pension contributions		(492)		(492)
Benefit payments	(625)	532		(93)
Actuarial gains and losses and asset ceiling	(597)	(222)	17	(802)
Translation adjustments	677	(693)	1	(15)
Changes in Group structure	(31)	(1)		(32)
Assets/liabilities held for sale	(9)	7		(2)
TOTAL CHANGES	**(167)**	**(1,032)**	**18**	**(1,181)**
AT DECEMBER 31, 2021	**12,356**	**(11,402)**	**31**	**985**
Changes during the year				
Service cost	188			188
Interest cost/return on plan assets as per calculations	244	(232)		12
Employee contributions and plan administration costs		(6)		(6)
Past service cost	1			1
Plan curtailments/settlements	(1)			(1)
Pension contributions		(153)		(153)
Benefit payments	(710)	631		(79)
Actuarial gains and losses and asset ceiling	(3,589)	3,506	95	12
Translation adjustments	6	16	4	26
Changes in Group structure	270	(244)		26
Assets/liabilities held for sale	(3)	6		3
TOTAL CHANGES	**(3,594)**	**3,524**	**99**	**29**
AT DECEMBER 31, 2022	**8,762**	**(7,878)**	**130**	**1,014**

Actuarial gains and losses

Actuarial gains and losses on provisions result from the following items:

(in EUR millions)	2022	2021
Pension obligations	(3,589)	(597)
Fair value of plan assets	3,506	(222)
Asset ceiling	95	17
TOTAL CHANGES	**12**	**(802)**

Plan assets

Plan assets have been progressively built up by contributions, primarily in the United Kingdom and the United States. Contributions paid by the Group in 2022 totaled €153 million (2021: €492 million).

A 0.5-point increase or decrease in the actual return on plan assets would have an impact of approximately €39 million on equity.

Plan assets mainly comprise:

	Dec. 31, 2022	Dec. 31, 2021
Equities	18%	17%
Bonds	56%	63%
Other	26%	20%
TOTAL	**100%**	**100%**

Contributions to pension plans for 2023 are estimated at around €86 million.

6.3.4 Defined contribution plans

Contributions to defined contribution plans are expensed as incurred.

Contributions to defined contribution plans for 2022 represented an estimated €703 million (2021: €647 million), including €444 million for government-sponsored basic pension schemes (2021: €423 million), €134 million for government-sponsored supplementary pension schemes, mainly in France (2021: €126 million), and €125 million for corporate-sponsored supplementary pension plans (2021: €98 million).

6.4 Share-based payments

6.4.1 Group Savings Plan (PEG)

The Group Savings Plan (*Plan d'Épargne Groupe* – PEG) is an employee stock purchase plan open to all Group employees in France and most other countries where the Group is present. Eligible employees must have completed a minimum of three months' service with the Group. Eligible employees are able to invest in Saint-Gobain shares at a preferential subscription price. These shares are held either directly or through the employee saving plan's mutual funds, depending on local legislation, and are subject to a mandatory five- or ten-year lock-up, except following the occurrence of certain events. The Board of Directors delegates authorization for setting the subscription price to the Chief Executive Officer of Compagnie de Saint-Gobain. The subscription price corresponds to the average of the opening prices for the Saint-Gobain share on Euronext Paris over the 20 trading days preceding the date of the decision, subject to a 20% discount, in accordance with applicable laws, the Shareholders' Meeting resolutions and the deliberations of the Board of Directors. The Group makes a matching contribution to amounts paid in by employees, which is expensed in the consolidated financial statements. The Group also records an IFRS 2 expense reflecting the benefit offered to employees (€9.3 million in 2022, compared with €13.2 million in 2021).

Saint-Gobain implemented a new PEG in the first half of 2022. As approved by the Chief Executive Officer on March 14, 2022, the reference price is €56.48 (€44.76 in 2021), representing a subscription price of €45.19 (€35.81 in 2021) after a 20% discount.

In 2022, 4,916,097 new shares with a par value of €4 were issued to employees under the PEG at an average subscription price of €45.19 (5,562,855 shares at an average price of €35.81 in 2021), representing a share capital increase of €222 million (€199 million in 2021), net of transaction fees.

6.4.2 Stock option plans

Until 2018, Compagnie de Saint-Gobain operated stock option plans for certain employees.

Under these plans, the Board of Directors granted options allowing beneficiaries to obtain Saint-Gobain shares at a price set, at no discount, by reference to the average of the opening prices for the Saint-Gobain share over the 20 stock market trading days preceding the date of the decision by the Board of Directors.

For all of the plans, beneficiaries must wait at least four years from the grant date to exercise any options. None of the options received may be exercised until this four-year period has lapsed. Options must be exercised within 10 years of the grant date. Except in specified circumstances, grantees forfeit these options if they leave the Group.

Among the plans outstanding at December 31, 2022, the 2013, 2015, 2016 and 2017 plans offer stock purchase options. The 2018 plan was classified as a stock subscription option plan further to a decision of the Board of Directors in 2022, prior to the start of the exercise period.

A performance condition applies for all beneficiaries under current plans.

No stock options plan has been launched since 2019.

The following table presents changes in the number of outstanding options:

	€4 par value shares	Average exercise price *(in EUR)*
OPTIONS OUTSTANDING AT DECEMBER 31, 2020	**844,524**	**40.04**
Options granted		
Options exercised	(151,173)	38.59
Options forfeited	(141,862)	49.38
OPTIONS OUTSTANDING AT DECEMBER 31, 2021	**551,489**	**38.03**
Options granted		
Options exercised	(28,977)	40.97
Options forfeited*	(36,691)	31.71
OPTIONS OUTSTANDING AT DECEMBER 31, 2022	**485,821**	**38.32**

* *Including 15,411 options granted under the 2018 stock option plan that lapsed because the performance conditions were not met and 17,000 that lapsed after they had been withdrawn, as well as 4,280 options that lapsed after the exercise period under the 2012 stock option plan expired.*

The cost of stock option plans is calculated using the Black & Scholes option pricing model.

The following inputs were used:

- volatility assumptions that take into account the historical volatility of the share price over a rolling 10-year period, as well as implied volatility from traded share options. Periods of extreme share price volatility are disregarded;
- assumptions relating to the average holding period of options, based on observed behavior of option holders;
- expected dividends, as estimated on the basis of historical dividend information dating back to 1988;
- a risk-free interest rate corresponding to the yield on long-term government bonds;
- the effect of any stock market performance conditions, which is taken into account in the initial measurement of IFRS 2 share-based payment expense.

The cost calculated using this method is recognized in the income statement over the vesting period of the options, which is a maximum of four years.

Under IFRS 2, the expense attributable to the amortization of stock options granted under previous plans totaled €0.1 million in 2022 (€0.4 million in 2021).

The table below summarizes information about stock options outstanding at December 31, 2022, after taking into account partial fulfillment of the performance criteria attached to certain plans:

	Exercisable options outstanding			
Grant date	Exercise price *(in EUR)*	Number of options	Weighted average contractual life *(in months)*	Type of options
2013	38.80	36,707	11	Purchase
2015	39.47	36,739	35	Purchase
2016	40.43	43,897	47	Purchase
2017	49.38	121,713	59	Purchase
2018	32.24	246,765	71	Subscription
TOTAL		**485,821**		

At December 31, 2022, 485,821 options were exercisable at an average exercise price of €38.32. All options are now exercisable.

6.4.3 Performance share and performance unit grants

Since 2009, performance share plans have also been set up for certain categories of employees. These plans are subject to eligibility criteria based on the grantee's period of service (service conditions) with the Group as well as performance criteria (performance conditions), which are described below. The IFRS 2 share-based payment expense takes into account these conditions. It is determined after deducting the present value of the dividends forfeited on the performance shares and is recognized over the vesting period, not exceeding four years.

From 2012 to 2015, performance unit plans have been set up for certain employees in France. These plans are also subject to service and performance conditions. The IFRS 2 share-based payment expense therefore takes into account these factors, as well as the fact that the units are cash-settled. IFRS 2 stipulates that for cash-settled share-based payment transactions, the granted instruments are initially measured at fair value at the grant date, then remeasured at the end of each reporting period, with the expense adjusted accordingly pro rata to the rights that have vested at the reporting date. The expense is recognized over the vesting period of the rights.

Performance share plans

At December 31, 2022, there were four outstanding performance share plans, approved by the Board of Directors in 2019, 2020 and 2021 and on November 24, 2022.

The expense recorded for these plans in the 2022 income statement amounted to €33.2 million (2021: €44.4 million).

All plans are subject to service and performance conditions. The vesting period for the shares awarded under these plans is four years and the shares will be delivered under all plans the fourth day after the end of the vesting period for the 2019, 2020, 2021 and 2022 plans.

The table below shows changes in the number of performance share rights:

	Number of rights
NUMBER OF PERFORMANCE SHARE RIGHTS AT DECEMBER 31, 2020	**4,965,834**
Performance share rights granted in November 2021	1,184,475
Shares issued/delivered	(904,712)
Lapsed and canceled rights	(324,838)
NUMBER OF PERFORMANCE SHARE RIGHTS AT DECEMBER 31, 2021	**4,920,759**
Performance share rights granted in November 2022	1,232,792
Shares issued/delivered	(1,076,098)
Lapsed and canceled rights*	(141,921)
NUMBER OF PERFORMANCE SHARE RIGHTS AT DECEMBER 31, 2022	**4,935,532**

* *Including 53,310 rights that lapsed because the performance condition had only been partly met, and 88,611 rights that lapsed after they had been withdrawn.*

The fair value of the performance shares corresponds to the Saint-Gobain share price on the grant date, less the value of dividends not payable on the shares during the vesting period. The expense is recognized over the vesting period, which covers a maximum of four years.

The following table shows the expected dates when shares under the four performance share plans outstanding at December 31, 2022 will be delivered (except in the case of early release following the grantee's death or disability, along with the service and performance conditions remaining to be fulfilled):

Grant date	Number of rights at December 31, 2022*	Delivery date	Type of shares
November 21, 2019	1,250,920	November 24, 2023	existing
November 26, 2020	1,267,545	November 29, 2024	existing
November 25, 2021	1,184,275	November 28, 2025	existing
November 24, 2022	1,232,792	November 27, 2026	existing
TOTAL	**4,935,532**		

* *Subject to fulfillment of the service and performance conditions applicable to each plan.*

Performance unit plans

Performance unit plans subject to service and performance conditions were set up every year between 2012 and 2015 for certain management-grade employees and senior managers of the Group in France. These plans do not give rise to the delivery of shares but entitle grantees to receive cash compensation deferred over the long-term (exercise period between four and ten years after the grant date), the amount of which will be determined by reference to Saint-Gobain's share price.

No long-term compensation plan in the form of performance units has been set up since 2016.

Since the vesting period of the last plan ended in 2019, there are no longer any expenses in respect of such plans.

NOTE 7 INTANGIBLE ASSETS, PROPERTY, PLANT AND EQUIPMENT, AND RIGHT-OF-USE ASSETS

7.1 Goodwill

When an entity is acquired by the Group, its identifiable assets acquired, liabilities assumed and contingent liabilities are recognized at their fair value. IFRS allows a 12-month period after the acquisition date ("measurement period") to identify the assets and liabilities of the acquired entity that were not recognized in the initial accounting for the combination, and to retroactively modify the amounts initially allocated.

The final acquisition price ("consideration transferred" in IFRS 3R), including, as appropriate, the estimated fair value of any earn-out payments or other deferred consideration ("contingent consideration" in IFRS 3R), is determined in the 12 months following the acquisition. Under IFRS 3R, any adjustments to the acquisition price beyond this 12-month period are recorded in the income statement. Directly attributable acquisition costs are expensed as incurred.

In addition, goodwill is recognized only at the date that control is achieved. Any subsequent increase in ownership interest (without change of control) is recorded as a change in equity without adjusting goodwill.

Goodwill is recorded in the consolidated balance sheet as the difference between (i) the acquisition-date fair value plus the amount of any non-controlling interests in the acquiree – measured either at fair value (full goodwill method) or at the proportionate interest in the fair value of the net identifiable assets acquired (partial goodwill method) – and (ii) the net amount of assets and liabilities acquired at their fair value at the acquisition date. The Group generally applies the partial goodwill method and the amount of goodwill calculated under the full goodwill method is not therefore material.

Any excess of the cost of an acquisition over the fair value of the Group's share of the assets and liabilities of the acquired entity is recorded as goodwill. If the fair value of the net assets acquired and liabilities assumed exceeds their acquisition cost, this negative difference is recognized in the income statement in the year of acquisition.

Changes in goodwill in 2022 and 2021 are detailed below:

(in EUR millions)	Dec. 31, 2022	Dec. 31, 2021
At January 1		
Gross value	13,399	12,229
Accumulated impairment	(2,218)	(2,201)
NET VALUE	**11,181**	**10,028**
Changes during the period		
Impairment	(28)	(30)
Translation adjustments and restatement for hyperinflation	(37)	354
Changes in Group structure	1,742	815
Assets held for sale	0	14
TOTAL CHANGES	**1,677**	**1,153**
At December 31		
Gross value	14,304	13,399
Accumulated impairment	(1,446)	(2,218)
NET VALUE	**12,858**	**11,181**

In 2022, changes in scope of consolidation mainly concerned first-time consolidations, in particular following the acquisition of GCP Applied Technologies (see note 4.2.1, p. 280) for €1,490 million; the finalization of the Chryso purchase price accounting, which resulted in a €229 million reduction in goodwill; and the acquisitions of Kaycan and Impac for €355 million and €51 million, respectively.

Impairment losses were recognized for a total of €28. million, mainly against individual assets in the period. The translation adjustments and restatements for hyperinflation primarily reflect the impacts of fluctuations in the pound sterling, US dollar, Norwegian krone, Canadian dollar, Swedish krona, Brazilian real and Argentine peso.

In 2021, changes in Group structure mainly reflected first-time consolidations following the acquisition of Chryso for €722 million and of Equflow and Duraziv for €20 million and €17 million, respectively, as well as adjustments relating to purchase price accounting in progress at the time. Impairment losses were recognized for €30 million, mainly against assets sold in the period. Translation adjustments primarily reflected the impacts of fluctuations in the US dollar, pound sterling, Norwegian krone and Argentine peso.

7.2 Other intangible assets

Other intangible assets primarily include brands, customer relationships, intellectual property, software, patents and development costs. They are measured at historical cost less accumulated amortization and impairment.

Certain retail or manufacturing brands acquired are treated as intangible assets with indefinite useful lives as they have a strong national and/or international reputation. These brands are not amortized but are tested systematically for impairment on an annual basis. Other brands are amortized over their useful lives, not exceeding 40 years.

Customer relationships are amortized over the attrition period used to value these assets.

Costs incurred to develop software in-house – primarily configuration, programming and testing costs – are recognized as intangible assets. Patents and purchased computer software are amortized over their estimated useful lives, not exceeding 20 years for patents and three to five years for software.

Research costs are expensed as incurred. Development costs meeting the recognition criteria under IAS 38 are included in intangible assets and amortized over their estimated useful lives (not exceeding five years) from the date when the products to which they relate are first marketed.

Changes in other intangible assets during 2022 and 2021 are analyzed below:

(in EUR millions)	Brands	Intellectual property and customer relationships	Software	Other	Total intangible assets
At January 1, 2021					
Gross value	2,062	496	1,323	536	4,417
Accumulated amortization and impairment	(542)	(54)	(955)	(361)	(1,912)
NET VALUE	**1,520**	**442**	**368**	**175**	**2,505**
Changes during the period					
Acquisitions			41	69	110
Disposals			(4)	1	(3)
Translation adjustments and restatement for hyperinflation	37	31	8	4	80
Amortization*	(8)	(47)	(121)	(18)	(194)
Impairment	(4)	(25)	(9)	(2)	(40)
Transfers			56	(56)	0
Changes in Group structure and other	160	93	4	(7)	250
Assets held for sale			(1)	(2)	(3)
TOTAL CHANGES	**185**	**52**	**(26)**	**(11)**	**200**
At December 31, 2021					
Gross value	2,294	651	1,411	548	4,904
Accumulated amortization and impairment	(589)	(157)	(1,069)	(384)	(2,199)
NET VALUE	**1,705**	**494**	**342**	**164**	**2,705**
Changes during the period					
Acquisitions			42	63	105
Disposals			(6)	(2)	(8)
Translation adjustments and restatement for hyperinflation	(43)	(85)	(3)	1	(130)
Amortization*	(15)	(105)	(119)	(13)	(252)
Impairment	(6)			(71)	(77)
Transfers			72	(72)	0
Changes in Group structure and other	323	1,355	(3)	8	1,683
Assets held for sale			(49)	49	0
TOTAL CHANGES	**259**	**1,165**	**(66)**	**(37)**	**1,321**
At December 31, 2022					
Gross value	2,190	1,897	1,345	492	5,924
Accumulated amortization and impairment	(226)	(238)	(1,069)	(365)	(1,898)
NET VALUE	**1,964**	**1,659**	**276**	**127**	**4,026**

* *"Amortization" includes amortization charged against intangible assets within the scope of purchase price accounting, representing €116 million in 2022 (2021: €52 million).*

The breakdown of brands, intellectual property and customer relationships by segment is provided in the segment information tables in note 5, p. 285.

In 2022, changes in Group structure correspond mainly to adjustments to the purchase price accounting relating to brands and customer relationships in the Chryso acquisition, representing €16 million and €277 million, respectively. They also include GCP Applied Technologies' brands and customer relationships for a total amount of €811 million, Kaycan's brands and customer relationships for a total amount of €504 million, and Impac's customer relationships for a total amount of €30 million. Impairment losses were recognized for a total of €77 million, mainly against assets held for sale. The translation adjustments and restatements for hyperinflation primarily reflect the impacts of fluctuations in the Canadian and US dollars, and in pound sterling.

In 2021, changes in Group structure related mainly to brands and customer relationships acquired as a result of the Chryso acquisition for €158 million and €48 million, respectively. They also included customer relationships acquired as a result of the MS Techniques, Transluminal and Duraziv acquisitions for a total amount of €23 million, as well as Saint-Gobain Brüggemann Holzbau GmbH intellectual property for €10 million. Impairment losses were recognized against certain individual assets for a total of €40 million.

7.3 Property, plant and equipment

Land, buildings and equipment are carried at historical cost less accumulated depreciation and impairment.

Cost may also include incidental expenses directly attributable to the acquisition, as well as the impact of transfers from equity of any gains/losses on qualifying cash flow hedges of property, plant and equipment purchases.

Expenses incurred in exploring and evaluating mineral resources are included in property, plant and equipment when it is probable that associated future economic benefits will flow to the Group. They include mainly the costs of topographical or geological studies, drilling costs, sampling costs and all costs incurred in assessing the technical feasibility and commercial viability of extracting the mineral resource.

Material borrowing costs incurred for the construction and acquisition of property, plant and equipment are included in the cost of the related asset if they are significant.

Property, plant and equipment are considered as having no residual value, as they chiefly consist of industrial assets that are intended to be used until the end of their useful lives.

Property, plant and equipment other than land are depreciated using the components approach on a straight-line basis over the following estimated useful lives, which are regularly reviewed:

- Major factories and offices 30-40 years
- Other buildings 15-25 years
- Production machinery and equipment 5-16 years
- Vehicles 3-5 years
- Furniture, fixtures, office and computer equipment 4-16 years

Gypsum quarries are depreciated over their estimated useful lives, based on the quantity of gypsum extracted during the year compared with extraction capacity.

Provisions for site restoration are recognized as a component of assets whenever the Group has a legal or constructive obligation to restore a site in accordance with contractually determined conditions or in the event of a sudden deterioration in site conditions. These provisions are reviewed periodically and may be discounted over the expected useful lives of the assets concerned. The component is depreciated over the same useful life as that used for mines and quarries.

Changes in property, plant and equipment in 2022 and 2021 are analyzed below:

(in EUR millions)	Land and quarries	Buildings	Machinery and equipment	Assets under construction	Total property, plant and equipment
At January 1, 2021					
Gross value	2,293	7,925	19,169	1,312	30,699
Accumulated depreciation and impairment	(652)	(4,822)	(14,135)	(18)	(19,627)
NET VALUE	**1,641**	**3,103**	**5,034**	**1,294**	**11,072**
Changes during the period					
Acquisitions	46	70	249	1,116	1,481
Disposals	(32)	(26)	(34)	(3)	(95)
Translation adjustments and restatement for hyperinflation	49	104	166	53	372
Depreciation	(33)	(241)	(837)	(2)	(1,113)
Impairment	(5)	(30)	(64)	(5)	(104)
Transfers		185	668	(853)	0
Changes in Group structure and other	38	12	29	(2)	77
Assets held for sale	(1)	(14)	(9)	(3)	(27)
TOTAL CHANGES	**62**	**60**	**168**	**301**	**591**
At December 31, 2021					
Gross value	2,380	8,161	19,848	1,611	32,000
Accumulated depreciation and impairment	(677)	(4,998)	(14,646)	(16)	(20,337)
NET VALUE	**1,703**	**3,163**	**5,202**	**1,595**	**11,663**
Changes during the period					
Acquisitions	35	81	287	1,432	1,835
Disposals	(21)	(30)	(23)	(6)	(80)
Translation adjustments and restatement for hyperinflation	6	23	33	22	84
Depreciation	(37)	(256)	(902)	(1)	(1,196)
Impairment	(2)	(129)	(38)		(169)
Transfers		267	943	(1,210)	0
Changes in Group structure and other	35	76	126	17	254
Assets held for sale	(93)	(73)	(36)	(26)	(228)
TOTAL CHANGES	**(77)**	**(41)**	**390**	**228**	**500**
At December 31, 2022					
Gross value	2,329	8,085	20,896	1,841	33,151
Accumulated depreciation and impairment	(703)	(4,963)	(15,304)	(18)	(20,988)
NET VALUE	**1,626**	**3,122**	**5,592**	**1,823**	**12,163**

In 2022, changes in Group structure relate mainly to adjustments to the purchase price accounting for the Chryso acquisition and the first-time consolidation of GCP Applied Technologies and Impac. Impairment losses were recognized for a total of €169 million, mainly against assets held for sale. The translation adjustments and restatements for hyperinflation primarily reflect the impacts of fluctuations in the US dollar, Mexican peso, Brazilian real, pound sterling, Indian rupee, Egyptian pound, Argentine peso and Swedish krona.

In 2021, changes in Group structure related mainly to the first-time consolidation of Chryso. Translation adjustments and restatement for hyperinflation primarily reflected the impacts of fluctuations in the US dollar, pound sterling, Chinese renminbi, Indian rupee, Mexican peso, Czech koruna, Norwegian krone, Argentine peso, Brazilian real, Canadian dollar and Turkish lira.

7.4 Right-of-use assets linked to leases

The Saint-Gobain Group has chosen to apply IFRS 16 using the full retrospective method at January 1, 2019 (i.e., with effect from January 1, 2018) and has restated all of its leases that were identified ahead of first-time application of the standard. Entities' historical lease contracts were restated with effect from the date on which the entities were first consolidated by the Group.

The following recognition exemptions proposed by IFRS 16 have been used by the Group:

- leases with a lease term of 12 months or less;
- leases where the underlying asset has a value of less than US$5,000 when new.

Property leases

The lease term corresponds to the non-cancelable period of the lease, plus any renewal (or termination) options that the Group is reasonably certain to exercise (or not to exercise). The Group determined whether or not lease renewal (or termination) options were reasonably certain to be exercised based on the location of, and any improvements inseparable from, the leased asset. The lease term at inception for "3/6/9-year" commercial leases in France is generally nine years. The Group did not identify any material leases with similar characteristics in other countries.

At December 31, 2019 and with retroactive effect from January 1, 2018, Saint-Gobain took account of the IFRIC's November 2019 agenda decision in reviewing the terms of its automatically renewable leases, considering the importance of the underlying assets to its operations.

The discount rate used to calculate the lease liability is the incremental borrowing rate. This rate is applied at the commencement of the lease or at the date of the decision to renew the lease. The Group calculated the rate applicable to each lease contract on the basis of its duration, which reflects the payment profile of the lease liability.

The useful life of non-movable leasehold improvements cannot exceed the useful life of the right-of-use assets to which they relate.

Leases other than property leases

The main leases identified correspond to leases of vehicles, machinery and production equipment.

The lease capitalization period (lease term) represents the non-cancelable period of the lease. Where leases provide for a renewal (or termination) option, the Group determined whether or not that option was reasonably certain to be exercised based on the ease with which the leased asset could be replaced and its criticality.

The discount rate used to determine the lease liability is calculated using the same approach as for property leases.

The interest rate implicit in the lease is used as the discount rate only in the case of non-property leases and only if this is expressly stipulated in the lease contract.

Although leases can generally incorporate indexation clauses, lease liabilities are measured based solely on indexes known at the end of the reporting period.

In 2022, right-of-use assets linked to leases relate mainly to land and buildings for €2,336 million (€2,419 million at December 31, 2021) and to machinery and equipment for €416 million (€540 million at December 31, 2021).

Lease payments made under low-value and/or short-term leases, along with variable lease payments or lease payments falling outside the scope of IFRS 16, totaled €195 million in 2022 (€169 million in 2021).

The table below presents right-of-use assets for lease contracts by category:

(in EUR millions)	Land and buildings	Machinery and equipment	Total
At January 1, 2021			
Gross value	5,549	1,070	6,619
Accumulated depreciation and impairment	(3,182)	(535)	(3,717)
NET VALUE	**2,367**	**535**	**2,902**
Changes during the period			
New leases	538	231	769
Lease modifications	10		10
Disposals	(46)	(18)	(64)
Translation adjustments	47	13	60
Depreciation	(463)	(216)	(679)
Impairment	(11)	(3)	(14)
Changes in Group structure and other	17	8	25
Assets held for sale	(40)	(10)	(50)
TOTAL CHANGES	**52**	**5**	**57**
At December 31, 2021			
Gross value	5,761	1,133	6,894
Accumulated depreciation and impairment	(3,342)	(593)	(3,935)
NET VALUE	**2,419**	**540**	**2,959**
Changes during the period			
New leases	570	194	764
Disposals		(4)	(4)
Translation adjustments	(38)	(4)	(42)
Depreciation	(491)	(225)	(716)
Impairment	(10)		(10)
Changes in Group structure and other	54	(8)	46
Assets held for sale	(168)	(77)	(245)
TOTAL CHANGES	**(83)**	**(124)**	**(207)**
At December 31, 2022			
Gross value	5,521	901	6,422
Accumulated depreciation and impairment	(3,185)	(485)	(3,670)
NET VALUE	**2,336**	**416**	**2,752**

7.5 Impairment review

7.5.1 Impairment of property, plant and equipment, intangible assets, goodwill and right-of-use assets

The Group carries out impairment tests on property, plant and equipment, right-of-use assets, goodwill and other intangible assets whenever there is any indication of impairment. These tests consist of comparing the asset's carrying amount to its recoverable amount. The recoverable amount is the higher of the asset's fair value less disposal costs and its value in use.

Goodwill and other unamortized intangible assets (including brands with indefinite useful lives) are tested for impairment annually by comparing the asset's carrying amount to its recoverable amount using the EBITDA multiple approach.

If the resulting recoverable amount is below the asset's carrying amount, the Group determines the value in use at the level of the relevant cash-generating unit (CGU).

Assets and liabilities held for sale are carried at the lower of their fair value less costs to sell and their net carrying amount.

In 2022, the number of CGUs was reduced from 23 to 18, following various disposals and reorganizations within the Group.

The value in use is calculated using the net present value of future cash flows excluding interest but including tax. It is determined using assumptions made by management based on estimates and judgments including future changes in sales, profitability, investments and other cash flows arising from the use of the corresponding assets, as well as the discount rate applied to future cash flows. Cash flows for the last year of the business plan beyond the three-year forecast period are rolled forward over the following two years. For impairment tests of goodwill, normative cash flows are then projected to perpetuity using an annual growth rate (between 1.5% and 2% barring exceptional cases).

The average cost of capital was 7.2% in 2022 versus 6.85% in 2021. This rate corresponds to the Group's average cost of capital, plus a country risk premium where applicable.

7.5.2 CGU impairment tests

When the annual impairment test reveals that the recoverable amount of an asset is less than its carrying amount, an impairment loss is recorded.

Impairment losses on goodwill can never be reversed through income. For property, plant and equipment and other intangible assets, an impairment loss recognized in prior periods may be reversed, taking into account depreciation/amortization adjustments, if there is an indication that the impairment no longer exists and that the recoverable amount of the asset concerned exceeds its carrying amount.

During the impairment tests, different assumptions measuring the method's sensitivity are systematically tested using the following inputs:

- 0.5-point increase in the discount rate applied to cash flows;
- 0.5-point decrease in the annual average rate of growth in cash flows projected to perpetuity;
- 1-point decrease in the operating income rate for Industry activities and a 0.5-point decrease for Distribution activities.

On the basis of the sensitivity tests carried out at December 31, 2022 (i.e., sensitivity to changes in the discount rate, perpetuity growth rate and profitability rate), three CGUs were identified as sensitive: the Brazil Distribution CGU and the two Pipe CGUs (Europe and Latin America).

In 2022, the average cost of capital plus a country risk premium for the CGUs identified as sensitive is 7.8% for Pipe Europe, 13.4% for Pipe Latin America and 14.0% for Brazil Distribution.

At December 31, 2022, a 0.5-point increase in the discount rate would have led the Group to recognize approximately €1 million in additional impairment against the Latin America Pipe CGU's non-current assets.

Furthermore, no impairment would have been recognized against non-current assets in the event of a 0.5-point decrease in the average annual cash flow growth rate projected to perpetuity for the three CGUs.

The impact of a 1-point decrease in the operating income rate for the two Pipe CGUs would have led the Group to recognize an impairment loss of approximately €78 million (of which €69 million in Europe and €9 million in Latin America), while a 0.5 point decrease in the rate for the Brazil Distribution CGU would not have generated material additional impairment.

The breakdown of asset impairment by region for 2022 and 2021 is provided in the segment information tables in note 5, p. 285.

In 2022 the Group reviewed its impairment tests in light of the current situation and the outlook for certain businesses and countries.

2022 saw significant increases in sales prices for the Pipe Europe CGU in order to offset inflation experienced in 2021 and 2022, along with strong volume momentum in the first half of the year, which led to a significant improvement in operating income. The challenges for 2023 will be to remain responsive to market conditions, to streamline and scale back product listings, and to continue to improve operating income.

For the Latin America Pipe CGU, 2022 was shaped by significant price increases and political instability in Brazil. The outlook for 2023 is for moderate growth with the aim of maintaining sales prices.

For the Brazil Distribution CGU, 2022 saw the closure of five stores in a declining market. An impairment loss of €30 million was recognized in 2022. The restructuring, alongside the new sales policy aimed at optimizing margins and developing new concepts ("TelhaNorte Já" and "Boutique") explains the expected improvement in performance in 2023.

The Group's commitments to carbon neutrality were taken into account when carrying out sensitivity tests as part of its impairment testing. Details of these sensitivity tests are provided in note 3 on climate issues (see p. 276).

NOTE 8 INVESTMENTS IN EQUITY-ACCOUNTED COMPANIES AND OTHER NON-CURRENT ASSETS

A joint venture is a joint arrangement whereby the parties have joint control of the arrangement, and decisions about the relevant activities require the unanimous consent of the parties sharing control. The parties that have joint control of the arrangement have rights to the net assets of the arrangement. By contrast, an associate is an entity over which a partner has significant influence over the power to participate in decisions, but not control.

Under IAS 28, investments in both associates and joint ventures must be recognized using the same equity-accounting consolidation method.

8.1 Changes in investments in equity-accounted companies

Changes in investments in equity-accounted companies in 2022 and 2021 can be analyzed as follows:

(in EUR millions)	2022	2021
At January 1		
Group share in:		
Associates	221	185
Joint ventures	283	246
TOTAL	**504**	**431**
Goodwill	32	31
INVESTMENTS IN EQUITY-ACCOUNTED COMPANIES	**536**	**462**
Changes during the period		
Group share in net income of associates	27	31
Group share in net income of joint ventures	39	25
Dividends paid	(8)	(33)
Translation adjustments and restatement for hyperinflation	40	27
Acquisitions and capital increases	1	4
Changes in Group structure, transfers and other variations	4	20
TOTAL CHANGES	**103**	**74**
At December 31		
Group share in:		
Associates	249	221
Joint ventures	350	283
TOTAL	**599**	**504**
Goodwill	40	32
INVESTMENTS IN EQUITY-ACCOUNTED COMPANIES	**639**	**536**

Investments in non-core business equity-accounted companies represented €67 million at December 31, 2022 (€62 million at end-2021).

The principal financial aggregates of equity-accounted companies are as follows:

	2022			2021		
(in EUR millions)	Associates	Joint ventures	Total	Associates	Joint ventures	Total
Sales	1,613	886	2,499	1,182	781	1,963
Net income	98	79	177	107	50	157
Non-current assets	663	610	1,273	536	514	1,050
Current assets	919	352	1,271	785	285	1,070
Non-current liabilities	1,120	800	1,920	959	673	1,632
Current liabilities	462	162	624	362	126	488
Shareholders' equity	885	729	1,614	754	597	1,351

8.2 Transactions with equity-accounted companies – related parties

The consolidated financial statements include transactions conducted by the Group in the normal course of its businesses with associates and joint ventures. These transactions are carried out on an arm's length basis.

The assets and liabilities of equity-accounted companies at December 31 are as follows:

(in EUR millions)	Dec. 31, 2022	Dec. 31, 2021
Financial receivables	33	33
Inventories	2	2
Short-term receivables	18	15
Cash and cash equivalents	0	0
Short-term debt	10	8
Cash advances	0	0

Purchases and sales transactions with equity-accounted companies are as follows:

(in EUR millions)	2022	2021
Purchases	111	63
Sales	53	38

8.3 Other non-current assets

Changes in other non-current assets in 2022 and 2021 are analyzed below:

(in EUR millions)	Equity investments and other	Loans, deposits and surety	Total
At January 1, 2021			
Gross value	92	446	538
Provisions for impairment	(22)	(5)	(27)
NET VALUE	**70**	**441**	**511**
Changes during the period			
Increases (decreases)	30	(77)	(47)
Provisions for impairment	(1)		(1)
Translation adjustments and restatement for hyperinflation	3	10	13
Transfers and other movements	17	2	19
Changes in Group structure	(1)	22	21
Changes in fair value	12		12
TOTAL CHANGES	**60**	**(43)**	**17**
At December 31, 2021			
Gross value	152	403	555
Provisions for impairment	(22)	(5)	(27)
NET VALUE	**130**	**398**	**528**
Changes during the period			
Increases (decreases)	93	(48)	45
Provisions for impairment		(1)	(1)
Translation adjustments and restatement for hyperinflation	1	11	12
Transfers and other movements	(3)	23	20
Changes in Group structure	(42)	5	(37)
Changes in fair value	(10)	(10)	(20)
Assets held for sale		(10)	(10)
TOTAL CHANGES	**39**	**(30)**	**9**
At December 31, 2022			
Gross value	175	374	549
Provisions for impairment	(6)	(6)	(12)
NET VALUE	**169**	**368**	**537**

NOTE 9 OTHER CURRENT AND NON-CURRENT LIABILITIES AND PROVISIONS, CONTINGENT LIABILITIES AND LITIGATION

A provision is booked when (i) the Group has a present legal or constructive obligation towards a third party as a result of a past event, (ii) it is probable that an outflow of resources will be required to settle the obligation, and (iii) the amount of the obligation can be estimated reliably.

If the amount or due date of the obligation cannot be estimated reliably, it is classified as a contingent liability and reported as an off-balance sheet commitment.

Provisions for other material liabilities and charges whose timing can be estimated reliably are discounted to present value.

9.1 Provisions for other liabilities and charges

The table below provides a breakdown by type along with details of changes in other provisions and current and non-current liabilities:

(in EUR millions)	Provisions for claims, litigation and environmental risks	Provisions for restructuring costs and personnel expenses	Provisions for customer warranties	Provisions for other contingencies	Total provisions for other liabilities	Investment-related liabilities	Total provisions for other liabilities and investment-related liabilities
At January 1, 2021							
Current portion	64	96	108	82	350	11	361
Non-current portion	162	126	107	442	837	128	965
TOTAL PROVISIONS FOR OTHER LIABILITIES AND INVESTMENT-RELATED LIABILITIES	**226**	**222**	**215**	**524**	**1,187**	**139**	**1,326**
Changes during the period							
Additions	193	73	94	83	443		443
Reversals	(8)	(27)	(16)	(22)	(73)		(73)
Utilizations	(72)	(121)	(44)	(41)	(278)		(278)
Changes in Group structure	4	(2)	(5)	8	5		5
Translation adjustments and reclassifications	11	3	13	35	62	57	119
Liabilities held for sale	(5)	15		(7)	3		3
TOTAL CHANGES	**123**	**(59)**	**42**	**56**	**162**	**57**	**219**
At December 31, 2021							
Current portion	165	61	135	92	453	26	479
Non-current portion	184	102	122	488	896	170	1,066
TOTAL PROVISIONS FOR OTHER LIABILITIES AND INVESTMENT-RELATED LIABILITIES	**349**	**163**	**257**	**580**	**1,349**	**196**	**1,545**
Changes during the period							
Additions	203	80	92	144	519		519
Reversals	(6)	(17)	(16)	(35)	(74)		(74)
Utilizations	(69)	(84)	(52)	(59)	(264)		(264)
Changes in Group structure		(1)	(1)	15	13		13
Translation adjustments and reclassifications	10	17	(8)	31	50	28	78
Liabilities held for sale	(27)	(3)		(2)	(32)		(32)
TOTAL CHANGES	**111**	**(8)**	**15**	**94**	**212**	**28**	**240**
At December 31, 2022							
Current portion	253	65	145	179	642	51	693
Non-current portion	207	90	127	495	919	173	1,092
TOTAL PROVISIONS FOR OTHER LIABILITIES AND INVESTMENT-RELATED LIABILITIES	**460**	**155**	**272**	**674**	**1,561**	**224**	**1,785**

9.1.1 Provisions for claims, litigation and environmental risks

These provisions cover costs relating to litigation, environmental protection measures, as well as site rehabilitation and clean-up costs.

They cover in particular PFOA-related proceedings and the antitrust lawsuit in the Distribution sector in Switzerland.

Litigation provisions amounted to €251 million at December 31, 2022. These provisions are described in further detail in note 9.2 "Contingent liabilities and litigation".

9.1.2 Provisions for restructuring costs and personnel expenses

Provisions for restructuring costs and personnel expenses amounted to €155 million at December 31, 2022 (December 31, 2021: €163 million).

These provisions cover restructuring transactions (personnel costs and other charges linked to reorganization plans), as well as provisions for personnel expenses unrelated to restructuring plans, in particular provisions for severance payments.

9.1.3 Provisions for customer warranties

These provisions cover the Group's commitments under warranties granted to customers mainly in the United States. They are determined on a statistical basis using a range of criteria and take into account contractual warranty payments made in prior years in the business and region concerned. In addition, specific provisions may be set aside for identified contingencies in the context of a specific claim.

9.1.4 Provisions for other contingencies

At December 31, 2022, provisions for other contingencies amounted to €674 million (December 31, 2021: €580 million) and mainly concern the United States (€473 million), France (€60 million) and Brazil (€73 million).

9.1.5 Investment-related liabilities

Investment-related liabilities correspond to commitments to purchase minority interests, liabilities relating to the acquisition of shares in Group companies, and minority shareholder puts.

In 2022, changes in investment-related liabilities primarily concerned liabilities relating to the acquisition of equity interests.

9.2 Contingent liabilities and litigation

9.2.1 Antitrust law and related proceedings

Investigation by the Swiss Competition Commission in the sanitary products wholesale industry

In November 2011, the Swiss Competition Commission (Commission suisse de la concurrence) opened an investigation into anti-competitive practices in the sanitary products wholesale industry. In May 2014, the Commission Secretariat issued a notice of complaints against Sanitas Troesch and other wholesalers in the industry alleging that Sanitas Troesch and some of its competitors had, among other things, agreed in 2005 and 2012 to lower gross prices.

The total fine imposed on all companies involved is CHF 80 million. For Sanitas Troesch, the fine is CHF 28.8 million. Sanitas Troesch appealed this decision on May 2, 2016 and continues to firmly refute the claims made. The hearing took place before the Federal Administrative Court on January 21, 2020 and the date on which the Federal Administrative Court will issue its decision is not yet known. However, a provision for claims and litigation was recognized at December 31, 2015 in an amount equivalent to the fine (unchanged as at December 31, 2022).

Investigation by the French Competition Authority in the building insulation products industry

Alleged anti-competitive practices in the building insulation products market were notified to Saint-Gobain Isover and Compagnie de Saint-Gobain, which rejected such allegations. The French Competition Authority considered that the alleged anti-competitive practices were not established and dismissed all the objections in January 2021. Actis appealed this decision to the Paris Court of Appeal.

On the civil law front, Actis served in March 2013 a damages claim on Saint-Gobain Isover, the Centre scientifique et technique du bâtiment, and the FILMM before the Paris Civil Court (Tribunal judiciaire de Paris) based on the facts being investigated by the Competition Authority.

At the end of 2022, Actis withdrew these two actions. Saint-Gobain Isover and Compagnie de Saint-Gobain accepted these withdrawals without reservation. The decision of the Paris Court of Appeal noting the withdrawal of Actis and the fact that the actions were removed from the Court was made on January 26, 2023. The judgment of the Paris Civil Court declaring the withdrawal of Actis and the removal of the case is expected in the first half of 2023.

9.2.2 Asbestos-related litigation

Current legal actions related to asbestos are described below.

Asbestos-related litigation in France

Inexcusable fault lawsuits

In France, Everite and Saint-Gobain PAM, which in the past manufactured fiber-cement products containing asbestos fibres, are the subject of actions by former employees of these companies (or persons claiming through them) for recognition of inexcusable fault following diseases recognized as being of occupational origin.

As of December 31, 2022, a total of 850 lawsuits had been issued against the two companies since the outset with the aim of obtaining supplementary compensation over and above the amounts paid by the French Social Security authorities in this respect.

As of the same date, 826 of these 850 lawsuits had been completed and 24 actions are still pending.

The total amount of compensation paid by Everite and Saint-Gobain PAM since the outset of these litigations in settlement of these lawsuits totaled approximately €9.7 million as of December 31, 2022 (compared to €6.6 million as of December 31, 2021).

In addition, similar suits had been filed against 13 French companies of the Group (excluding suits against companies that are no longer part of the Group) which in the past used equipment containing asbestos to protect their employees and installations against heat from furnaces.

As of December 31, 2022, a total of 282 lawsuits had been filed since the outset against these 13 companies. 240 of these 282 lawsuits had been completed and 42 actions were still pending at the same date.

The total amount of compensation paid since the outset of the litigations by these companies was approximately €11.8 million as of December 31, 2022 (compared to approximately €10.5 million as of December 31, 2021).

Anxiety claims

Eight of the Group's subsidiaries, including six that operate or have operated facilities in France classified as containing asbestos, were the subject of anxiety claims brought by current or former employees not suffering from an occupational disease due to asbestos – claiming compensation for prejudice of anxiety suffered as a result of their alleged exposure to asbestos.

As of December 31, 2022, a total of 861 lawsuits had been brought against these companies.

At the same date, 824 suits out of 861 have been definitely completed and 37 were still pending.

The total amount of compensation paid since the outset of the litigations was €8.5 million as of December 31, 2022 (unchanged compared to the amount as of December 31, 2021).

It should be clarified that the above figures do not take into account suits filed against companies that are no longer part of the Group.

Last, the total amount registered as provision for asbestos-related litigations in France – inexcusable faults lawsuits and anxiety claims – amounted to around €8 million as of December 31, 2022 (compared to around €7 million as of December 31, 2021).

Situation in the United States

Measures taken to achieve an equitable and permanent resolution of the former CertainTeed Corporation's legacy asbestos liabilities in the United States

DBMP LLC, an affiliate of CertainTeed LLC based in North Carolina, that holds the legacy asbestos liabilities of the former CertainTeed Corporation, filed, on January 23, 2020, a voluntary petition for relief under Chapter 11 of the US Bankruptcy Code in the US Bankruptcy Court for the Western District of North Carolina in Charlotte. The matter remains pending. The purpose of the filing is to achieve a certain, final and equitable resolution of all current and future claims arising from asbestos-containing products manufactured and sold by the former CertainTeed Corporation.

DBMP LLC intends to seek court authority to establish a trust under Section 524(g) of the US Bankruptcy Code – a specific provision that is applicable to companies that face substantial numbers of asbestos-related claims – to achieve a fair and equitable resolution of its asbestos-related liabilities. Upon establishment of the trust, current and future plaintiffs with qualifying claims will be able to receive faster payment of their claims without the delay, stress and uncertainty of litigation in the tort system; at the same time, the creation and funding of such a trust will permanently and finally resolve DBMP LLC's asbestos liability.

During the course of this bankruptcy process, which is expected to take up to approximately five to eight years, all asbestos litigation will be stayed and all related costs suspended, providing DBMP LLC with the time and protection to negotiate an agreement to be approved on behalf of all claimants and by the court.

This action was taken as a result of the increasing risks presented in the US tort system. Despite the passage of time, the aging of the population and lessening opportunity for claimants to assert legitimate claims of exposure to the asbestos-containing products of the former CertainTeed Corporation, naming practices in the tort system continued to result in a steady volume of claims against DBMP LLC, with no foreseeable end in sight. In addition, there has been, in general, an escalation of settlement demands and verdicts in the tort system.

Certain adversary proceedings have been filed by representatives of current and future asbestos plaintiffs against DBMP LLC, CertainTeed LLC, Saint-Gobain Corporation, Compagnie de Saint-Gobain and various other parties. No decisions on the merits of the claims have been made and such claims do not affect the Company's financial assessment of the Chapter 11 case.

Impact on the financial statements

Following the commencement of the proceeding under Chapter 11 of the US Bankruptcy Code on January 23, 2020, the assets and liabilities of DBMP LLC and its wholly-owned subsidiary Millwork & Panel LLC, and in particular the provision for asbestos-related litigation in the United States, are no longer consolidated in the Group's financial statements.

Nonetheless, because of a funding agreement between CertainTeed LLC and DBMP LLC by which CertainTeed LLC has agreed to fund the costs of the Chapter 11 case and, ultimately, the 524(g) trust, in both cases solely to the extent DBMP LLC is unable to do so in full, the Group recorded in its consolidated financial statements a debt against DBMP LLC amounting to $410 million as of December 31, 2022 ($417 million as of December 31, 2021).

The Group's consolidated income for 2022 is not impacted by the ongoing Chapter 11 proceeding described above.

As a result of this bankruptcy proceeding, all legal costs and indemnity payments related to DBMP LLC's asbestos tort claims have been suspended, and no further charges in relation to such claims have been taken in 2022 (as in 2021).

Situation in Brazil

In Brazil, former employees of Brasilit, that once manufactured fiber cement containing asbestos, suffering from asbestos-related occupational illnesses are offered, depending on the case, either financial compensation alone or lifetime medical assistance combined with financial compensation. Around 1,200 contractual instruments have accordingly been signed to date.

Two class actions were initiated against Brasilit in 2017 by two associations defending former employees exposed to asbestos at the São Caetano (São Paulo state) and Recife (Pernambuco state) plants, asking for their medical assistance and compensation to be revised. First and second instance decisions were rendered in connection with the suit related to the São Caetano plant respectively in July 2020 and July 2021, rejecting the claims of the plaintiffs. The latter have nevertheless appealed the second instance decision. First and second instance decisions were rendered in relation to Recife case, respectively in February and October 2022 rejecting the claiming party arguments. The plaintiff has appealed such second instance decision.

A third class action was initiated against Brasilit in 2019 in Capivari (State of São Paulo) by the Labor prosecutor asking for health insurance, as well as collective moral damages, in favor of employees, former employees and their respective families, as well as subcontractors who were exposed to asbestos. A first instance decision was rendered in September 2020 partly in favor of the plaintiffs. In particular, collective moral damages were granted to the plaintiffs, for an amount reduced to BRL 5 million (€0.8 million). Brasilit has appealed the decision.

Brasilit is subject to controls by the Ministry of Labor and continues to comply with all of its legal obligations with regard to medical assistance for its current and former employees.

In November 2017, the Supreme Court of Brazil decided to ban asbestos definitively across the country. Brasilit stopped using asbestos voluntarily as early as 2002.

9.2.3 Environmental disputes

PFOA proceedings in the United States

Levels of PFOA (perfluorooctanoic acid) in excess of US Environmental Protection Agency (EPA) health advisories or state maximum contaminant levels for drinking water have been found in municipal water systems and private wells near current Saint-Gobain Performance Plastics (SG PPL) facilities in Hoosick Falls (New York) and Merrimack (New Hampshire), and two former facilities in North Bennington (Vermont) in the United States. PFOA and PTFE (polytetrafluorethylene) have never been manufactured by these plants. SG PPL is a processor of PTFE which it purchases from third party suppliers and which in the past contained some PFOA.

SG PPL has voluntarily provided bottled water in all three communities, installed point-of-entry treatment systems to residents and businesses in all three communities, installed carbon filtration systems on the municipal water supply in Hoosick Falls and funded the installation of a carbon filtration system on the Merrimack Valley District's municipal water supply. In addition, it has voluntarily funded construction of water line extensions in certain communities in the Merrimack and Bennington areas. The investigations are on-going and the scope of responsibility for SG PPL arising from environmental remediation in New Hampshire and New York and clean-up obligations at these sites has not yet been established. The scope of the remediation in Vermont is defined and largely completed; future operation and maintenance obligations remain. Without admitting liability, SG PPL has signed consent orders with the environmental regulators in New York in 2016, in Vermont in 2017 and 2019 with respect to two different areas, and in New Hampshire in 2018, pursuant to which SG PPL has agreed to complete investigations, implement interim or final remediation measures at its current and former facilities and in the case of Vermont and New Hampshire, fund construction of water lines. Responsibility, if any, is expected to be shared with other parties as regards in particular the Hoosick Falls site.

PFOA-related lawsuits alleging both health-related and economic damages claims have been filed in civil courts in New York, New Hampshire and Vermont, some of which are in the form of proposed or certified class actions. It is difficult to predict the timing or outcome of any such litigation, or whether any additional litigation will be brought against SG PPL, however, both the New York and Vermont class actions are settled.

On December 31, 2022, the provision recorded by the Company in respect of this matter amounts to €201 million (compared to €116 million as of December 31, 2021). This provision covers both remediation and litigation related to PFOA matters.

9.2.4 Other contingent liabilities

Grenfell Tower fire in the United Kingdom

Celotex provides insulation materials for specific applications for the building and construction industry. Insulation materials from two Celotex ranges were purchased via distributors and used in refurbishing Grenfell Tower, London in 2015/2016, including as one component of the rainscreen cladding system designed and installed (by third parties) on the tower's external facade.

Following the Grenfell Tower fire on June 14, 2017, a Public Inquiry was constituted, which is considering, among other things, the modifications made to the building as part of the refurbishment, the role played by the various construction professionals, and the information provided by the manufacturers of the products used. The Inquiry has been conducting its work in two phases: its phase 1 report was published on October 30, 2019; phase 2 commenced in January 2020 and public hearings continued until July 2022, with a final report to follow, most likely in 2023. A criminal investigation into the circumstances of the fire is also in progress.

There are a large number of issues and circumstances that need to be explored and the implications for Celotex are unlikely to be known for some time. Civil proceedings in connection with Grenfell Tower brought against Celotex Limited and/or Saint-Gobain Construction Products UK Limited (which respectively held the Celotex business until or after December 31, 2015) and a number of other defendants – who are also core participants in the Public Inquiry – have been issued by bereaved, survivors and residents and emergency responders. Those proceedings have been stayed prior to the service of full pleadings on the basis that the parties to the litigation are permitted to engage in a confidential alternative dispute resolution process, which if it succeeds would avoid the need for litigation. Celotex and Saint-Gobain Construction Products UK Limited are engaging with other parties in such processes.

Celotex and Saint-Gobain Construction Products UK Limited are unable to communicate on the status of those confidential processes, which are ongoing. However, the financial statements as at 31 December 2022 include a provision covering the principal financial implications that may arise from the process engaged with bereaved, survivors and residents.

The extent to which Celotex may incur further civil or criminal liability in connection with the production, marketing, supply or use of its products is currently unclear and Celotex Limited and Saint-Gobain Construction Products UK are currently unable to make a reliable estimate of their potential liability in this respect.

9.2.5 Other proceedings and disputes

Some of the Group's companies may also be the subject of other claims made by their employees or by the tax authorities, or in the context of the enforcement of seller's warranties granted by the Group to the buyers of divested businesses (see p. 290, note 5.5.2). Apart from the proceedings and litigation described above, to the best of the Company's knowledge, no other government, court or arbitration proceedings exist (including pending proceedings or proceedings where the Company and/or the Group might be threatened) which could have or have had, in the last 12 months, a significant impact on the financial position or profitability of the Company and/or Group.

NOTE 10 FINANCING AND FINANCIAL INSTRUMENTS

10.1 Financial risks

10.1.1 Liquidity risk

Liquidity risk on financing

In a crisis environment, the Group might be unable to raise the financing or refinancing needed to cover its investment plans on the credit or capital markets, or to obtain such financing or refinancing on acceptable terms.

The Group's overall exposure to liquidity risk on its net debt is managed by the Treasury and Financing Department of Compagnie de Saint-Gobain, the Group's parent company. The subsidiaries generally enter into short- or long-term financing arrangements with Compagnie de Saint-Gobain or with the regional cash pools.

The Group's policy is to ensure that the Group's financing will be rolled over at maturity and to optimize borrowing costs. Long-term debt therefore systematically represents a high percentage of overall debt. At the same time, the maturity schedules of long-term debt are set in such a way that replacement capital market issues are spread over time.

The Group's main source of long-term financing is constituted by bonds, which are generally issued under the Medium Term Notes program. The Group also uses lease financing, perpetual bonds, participating securities, a long-term securitization program and bank borrowings.

Short-term debt is composed of borrowings under Negotiable European Commercial Paper (NEU CP) programs, and occasionally Euro Commercial Paper and US Commercial Paper programs, but also includes receivables securitization programs and bank financing. The Group also has factoring programs. Financial assets comprise marketable securities and cash and cash equivalents.

Compagnie de Saint-Gobain's liquidity position is secured by confirmed syndicated lines of credit.

A breakdown of long- and short-term debt by type and maturity is provided in note 10.3, which also details the main characteristics of the Group's financing programs and confirmed credit lines.

Saint-Gobain's long-term debt issues have been rated BBB with a positive outlook by Standard & Poor's since April 26, 2022, and Baa1 with a stable outlook by Moody's since June 15, 2022.

There is no guarantee that the Company will be in a position to maintain its credit risk ratings at current levels. Any deterioration in the Group's credit risk rating could limit its capacity to raise funds and could lead to higher rates of interest on future borrowings.

Liquidity risk on investments

Short-term investments consist of bank deposits and mutual fund units. To reduce liquidity and high volatility risks, the Group invests in money market funds and/or bonds whenever possible.

10.1.2 Financial counterparty credit risk

The Group is exposed to the risk of default by the financial institutions that manage its cash or other financial instruments, since such default could lead to losses for the Group.

The Group limits its exposure to risk of default by its counterparties by dealing solely with reputable financial institutions and regularly monitoring their credit ratings. However, the credit quality of a financial counterparty can change rapidly, and a high credit rating cannot eliminate the risk of a rapid deterioration of its financial position. As a result, the Group's policy in relation to the selection and monitoring of its counterparties is unable to entirely eliminate exposure to a risk of default.

To limit Compagnie de Saint-Gobain's exposure to counterparty credit risk, the Treasury and Financing Department deals primarily with counterparties with a long-term rating of A- or above from Standard & Poor's or A3 or above from Moody's. Concentrations of credit risk are also closely monitored to ensure that they remain at reasonable levels, taking into account the relative CDS ("Credit Default Swap") level of each counterparty.

10.1.3 Market risks

Energy and commodity risk

The Group is exposed to changes in the price of the energy it consumes and the raw materials used in its activities. Its energy and commodity hedging programs may be insufficient to protect the Group against significant or unforeseen price swings that could result from the prevailing financial and economic environment.

The Group may limit its exposure to energy price fluctuations by using swaps and options to hedge part of its fuel oil, natural gas and electricity purchases. The swaps and options are mainly contracted in the functional currency of the entities concerned. Hedges of fuel oil, gas and electricity purchases are contracted in accordance with the Group's purchasing policy.

These hedges (excluding fixed-price purchases negotiated directly with suppliers by the Purchasing Department) are generally arranged by the Group Treasury and Financing Department (or with regional treasury departments) in accordance with instructions received from the Purchasing Department.

From time to time, the Group may enter into contracts to hedge purchases of certain commodities or engage in the CO_2 emissions market, in accordance with the same principles as those outlined above for energy purchases.

Note 10.4 provides a breakdown of instruments used to hedge energy and commodity risks.

Interest rate risk

The Group's overall exposure to interest rate risk on consolidated debt is managed by the Treasury and Financing Department of Compagnie de Saint-Gobain.

The Group's policy is aimed at fixing and optimizing its medium-term borrowing costs by hedging interest rate risk. According to Group policy, the derivative financial instruments used to hedge interest rate risk can include interest rate swaps, cross-currency swaps, options – including caps, floors and swaptions – and forward rate agreements.

The table below shows the sensitivity at December 31, 2022 of pre-tax income and pre-tax equity to fluctuations in the interest rate on the Group's net debt after hedging:

(in EUR millions)	Impact on pre-tax income	Impact on pre-tax equity
Interest rate increase of 50 basis points	21	6
Interest rate decrease of 50 basis points	(21)	(6)

Note 10.4 provides a breakdown of instruments used to hedge interest rate risk and of gross debt by type of interest (fixed or variable) after hedging.

Foreign exchange risk

The currency hedging policies described below could be insufficient to protect the Group against unexpected or sharper than expected fluctuations in exchange rates resulting from economic and financial market conditions.

Foreign exchange risks are managed by hedging virtually all transactions entered into by Group entities in currencies other than the functional currency of the particular entity. Compagnie de Saint-Gobain and its subsidiaries may use forward contracts and options to hedge exposures arising from current and forecast transactions.

The subsidiaries generally set up contracts through the Group's parent company, Compagnie de Saint-Gobain, which then carries out the corresponding forex hedging transactions on their behalf, or through the regional cash pools. Failing this, contracts are taken out with one of the subsidiary's banks.

Most forward contracts have short maturities of around three months. However, forward contracts taken out to hedge firm orders may have longer terms.

The Group monitors its exposure to foreign exchange risk using a monthly reporting system that captures the foreign exchange positions taken by its subsidiaries. At December 31, 2022, 98% of the Group's foreign exchange exposure was hedged.

The residual net foreign exchange exposure of subsidiaries for the currencies presented below was as follows at December 31, 2022:

(in millions of euro equivalent)	Long	Short
EUR	10	4
USD	8	4
Other currencies	0	4
TOTAL	**18**	**12**

The table below gives an analysis, as of December 31, 2022, of the sensitivity of the Group's pre-tax income to a 10% increase in the exchange rates of the following currencies given the subsidiaries' residual net foreign exchange exposure:

Currency of exposure *(in millions of euro equivalent)*	Impact on pre-tax income
EUR	0.6
USD	0.4
Other currencies	(0.4)
TOTAL	**0.6**

Assuming that all other variables remained unchanged, a 10% fall in the exchange rates for these currencies at December 31, 2022 would have the opposite impact.

Note 10.4 provides a breakdown of instruments used to hedge foreign exchange risk.

Saint-Gobain share price risk

The Group is exposed to changes in the Saint-Gobain share price as a result of its performance unit incentive plans. To reduce its exposure to fluctuations in the share price, the Group uses hedging instruments such as equity swaps.

As a result, if the price of the Saint-Gobain share changes, any changes in the expense recorded in the income statement will be fully offset by the hedges in place.

Note 10.4 provides a breakdown of instruments used to hedge share price risk.

10.2 Net financial income (expense)

Net financial income (expense) includes borrowing and other financing costs, income from cash and cash equivalents, interest on lease liabilities, interest cost for pension and other post-employment benefit plans net of the return on plan assets, and other financial income and expense.

Net financial income (expense) in 2022 and 2021 comprises:

(in EUR millions)	2022	2021
Borrowing costs, gross	(250)	(240)
Income from cash and cash equivalents	54	7
BORROWING COSTS, NET, EXCLUDING LEASE LIABILITIES	**(196)**	**(233)**
Interest on lease liabilities	(66)	(54)
TOTAL BORROWING COSTS, NET	**(262)**	**(287)**
Interest cost – pension and other post-employment benefit obligations	(247)	(190)
Return on plan assets	232	160
INTEREST COST – PENSION AND OTHER POST-EMPLOYMENT BENEFIT OBLIGATIONS, NET	**(15)**	**(30)**
Other financial expense*	(139)	(106)
Other financial income	12	16
OTHER FINANCIAL INCOME AND EXPENSE	**(127)**	**(90)**
NET FINANCIAL INCOME (EXPENSE)	**(404)**	**(407)**

* *Including €19 million in premiums paid in 2022 on the partial redemption of a GBP bond issue.*

10.3 Net debt

10.3.1 Long- and short-term debt

Long-term debt

Long-term debt includes bonds, perpetual bonds, participating securities, long-term securitization and all other types of long-term financial liabilities, including the fair value of interest rate hedging derivatives.

Under IAS 32, the distinction between financial liabilities and equity is based on the substance of the contracts concerned rather than their legal form. As a result, participating securities are classified as debt.

At the end of the reporting period, long-term debt (excluding interest rate derivatives) is measured at amortized cost. Premiums and issuance costs are amortized using the effective interest method.

Short-term debt

Besides the current portion of long-term debt described above, short-term debt includes financing programs such as commercial paper, short-term securitization, bank overdrafts and other short-term financial liabilities including the fair value of derivatives related to debt and accrued interest on borrowings.

Short-term debt, excluding derivatives related to debt, is measured at amortized cost at the end of the reporting period. Premiums and issuance costs are amortized using the effective interest rate method.

Lease liabilities

Lease liabilities represent obligations to make lease payments in accordance with IFRS 16.

Cash and cash equivalents

Cash and cash equivalents mainly consist of bank accounts and marketable securities that are short-term (i.e., generally with maturities of less than three months), highly liquid investments readily convertible into known amounts of cash and subject to an insignificant risk of changes in value.

Marketable securities are measured at fair value through profit or loss.

Long- and short-term debt consists of the following:

(in EUR millions)	Dec. 31, 2022	Dec. 31, 2021
Bond issues	8,165	8,521
Perpetual bonds and participating securities	203	203
Long-term securitization	390	280
Other long-term financial liabilities	206	190
NON-CURRENT PORTION OF LONG-TERM DEBT	**8,964**	**9,194**
Bond issues	1,611	1,000
Long-term securitization	110	220
Other long-term financial liabilities	120	116
CURRENT PORTION OF LONG-TERM DEBT	**1,841**	**1,336**
Short-term financing programs (NEU CP, US CP, Euro CP)	0	0
Short-term securitization	148	263
Bank overdrafts and other short-term financial liabilities	492	282
SHORT-TERM DEBT	**640**	**545**
TOTAL GROSS DEBT EXCLUDING LEASE LIABILITIES	**11,445**	**11,075**
Lease liabilities	2,921	3,155
TOTAL GROSS DEBT	**14,366**	**14,230**
Cash at banks	(2,891)	(1,725)
Mutual funds and other marketable securities	(3,243)	(5,218)
CASH AND CASH EQUIVALENTS	**(6,134)**	**(6,943)**
TOTAL NET DEBT	**8,232**	**7,287**

Changes in the Group's long-term debt (excluding lease liabilities) can be analyzed as follows:

	Dec. 31, 2021	Cash impact		No cash impact			Dec. 31, 2022
(in EUR millions)		Increases	Decreases	Changes in Group structure	Translation adjustments	Other	
Non-current portion of long-term debt	9,194	1,607	(279)	9	(58)	(1,509)	8,964
Current portion of long-term debt	1,336	17	(1,007)	6	0	1,489	1,841
TOTAL LONG-TERM DEBT	**10,530**	**1,624**	**(1,286)**	**15**	**(58)**	**(20)**	**10,805**

The main changes with an impact on cash are described in note 10.3.3. The main change with no cash impact in the "Other" column relates to the reclassification of debt maturing within 12 months in the current portion of long-term debt.

The fair value of gross long-term debt (including the current portion), excluding lease liabilities, managed by Compagnie de Saint-Gobain amounts to €9.4 billion at December 31, 2022 (carrying amount: €10 billion). The fair value of bonds corresponds to the market price at the last market quotation of the year. For other borrowings, fair value is considered equal to the amount repayable.

10.3.2 Gross debt repayment schedule

The schedule of the Group's total gross debt as of December 31, 2022 is as follows:

(in EUR millions)	Currency	Within 1 year	1 to 5 years	Beyond 5 years	Total
Bond issues	EUR	1,611	4,331	3,423	9,365
	GBP	0	131	280	411
Perpetual bonds and participating securities	EUR	0	0	203	203
Long-term securitization	EUR	110	390	0	500
Other long-term financial liabilities	All currencies	28	80	126	234
Accrued interest on long-term debt	All currencies	92	0	0	92
TOTAL LONG-TERM DEBT		**1,841**	**4,932**	**4,032**	**10,805**
SHORT-TERM DEBT	**All currencies**	**640**	**0**	**0**	**640**
TOTAL GROSS DEBT EXCLUDING LEASE LIABILITIES		**2,481**	**4,932**	**4,032**	**11,445**
Lease liabilities	All currencies	597	1,509	815	2,921
TOTAL GROSS DEBT		**3,078**	**6,441**	**4,847**	**14,366**

At December 31, 2022, future interest payments on gross long-term debt (including the current portion), excluding lease liabilities, managed by Compagnie de Saint-Gobain can be broken down as follows:

(in EUR millions)	Within 1 year	1 to 5 years	Beyond 5 years	Total
Future interest payments on gross long-term debt	185	557	480	**1,222**

Interest on perpetual bonds and on participating securities is calculated up to 2049.

10.3.3 Bonds

Compagnie de Saint-Gobain also redeemed the following instruments at maturity:

- €900 million worth of 3.625% bonds on March 28, 2022;
- €100 million worth of 3.6% bonds on October 10, 2022.

On May 18, 2022, Compagnie de Saint-Gobain partially redeemed a bond for a face value of GBP 183.6 million. The amount outstanding under this bond, originally issued for GBP 300 million, represents GBP 116.4 million maturing on November 15, 2024 with a coupon of 5.625%. The difference between the redemption value and the face value of the bonds redeemed (GBP 16.1 million) was recorded in other financial expense.

On August 10, 2022, Compagnie de Saint-Gobain issued a €1.5 billion bond divided into three tranches:

- a €500 million tranche maturing August 10, 2025 and paying a coupon of 1.625%;
- a €500 million tranche maturing June 10, 2028 and paying a coupon of 2.125%;
- a €500 million tranche maturing August 10, 2032 and paying a coupon of 2.625%.

The ten-year tranche is a Sustainability-Linked Bond (SLB) linked to two important indicators of Saint-Gobain's sustainability roadmap, with ambitious 2030 targets in relation to the 2017 base year:

- reduce by 33% the absolute scope 1 and 2 CO_2 emissions;
- achieve an 80% reduction in non-recovered production waste.

A 0.375% step-up would apply on the 2032 coupon for each of these indicators if their respective target was not met.

10.3.4 Perpetual bonds

In 1985, Compagnie de Saint-Gobain issued 25,000 perpetual bonds with a face value of ECU 5,000 (€5,000 today).

A total of 18,496 perpetual bonds have since been bought back and canceled, and 6,504 perpetual bonds are outstanding at December 31, 2022, representing a total face value of €33 million.

The bonds bear interest at a variable rate (average of interbank rates offered by the four reference banks for six-month euro deposits). The amount paid out per bond in 2022 was €0.

The bonds are not redeemable and interest on the bonds is classified as a component of finance costs.

10.3.5 Non-voting participating securities

In June 1983, Compagnie de Saint-Gobain issued 1,288,299 non-voting participating securities with a face value of FRF 1,000. Their face value is now €152.45, following their translation into euros in 1999.

A certain number of these participating securities have been bought back over the years. At December 31, 2022, 606,883 securities are still outstanding with an aggregate face value of €92.5 million.

Interest on the securities ranges from 75% to 125% of the average corporate bond yield (TMO), based on the Group's consolidated income. The amount paid out per security in 2022 was €0.45.

In April 1984, 194,633 non-voting participating securities were issued by Compagnie de Saint-Gobain with a face value of ECU 1,000 (€1,000 today).

A certain number of these participating securities has been bought back over the years. At December 31, 2022, 77,516 securities are still outstanding, with an aggregate face value of €77.5 million.

Interest comprises (i) a fixed portion of 7.5% paid per year applicable to 60% of the nominal amount of the security, and (ii) a variable portion applicable to the remaining 40% of the nominal amount of the security, which is linked to consolidated net income of the previous year and to the reference six-month Euribor rate +7/8%. The amount paid per security in 2022 was €61.70, settled in two installments (€27.95 and €33.75).

These participating securities are not redeemable and the interest paid on them is classified as a component of finance costs.

10.3.6 Financing programs

The Group has a number of medium- and long-term financing programs (Medium-Term Notes) and short-term financing programs (Commercial Paper).

The state of these programs is as follows:

(in EUR millions)	Authorized drawings	Authorized limits at Dec. 31, 2022	Balance outstanding at Dec. 31, 2022	Balance outstanding at Dec. 31, 2021
Medium Term Notes	any duration	15,000	9,879	9,649
NEU CP	up to 12 months	4,000	0	0
US Commercial Paper	up to 12 months	938 *	0	0
Euro Commercial Paper	up to 12 months	938 *	0	0

* *Equivalent of USD 1,000 million based on the exchange rate at December 31, 2022.*

In accordance with market practices, Negotiable European Commercial Paper (NEU CP), US Commercial Paper and Euro Commercial Paper are generally issued with maturities of one to six months. They are treated as variable-rate debt since they are rolled over at frequent intervals.

10.3.7 Syndicated lines of credit

Compagnie de Saint-Gobain has two syndicated lines of credit that are intended to provide a secure source of financing for the Group (including as additional backing for its NEU CP, US Commercial Paper and Euro Commercial Paper programs):

- a €2.5 billion syndicated line of credit, maturing in December 2024 after the exercise of the two one-year rollover options;
- a second €1.5 billion syndicated line of credit, also maturing in December 2024 after the exercise of the two one-year rollover options.

Based on the Group's current credit rating for long-term debt, the two facilities are not subject to any covenants. Neither of these two lines of credit was drawn down at December 31, 2022.

10.3.8 Receivables securitization programs

The Group has set up two receivables securitization programs, one through its French subsidiary Point.P Finances GIE, and the other through its US subsidiary, Saint-Gobain Receivables Corporation.

The French program, covering an amount of up to €500 million, represented €500 million at both December 31, 2022 and December 31, 2021.

Based on observed seasonal fluctuations in receivables included in the program and on the contract's features, €390 million of this amount is classified as non-current and the remaining balance as current.

Under the US program, covering a maximum of up to USD 400 million, a total of USD 157 million has been drawn down at December 31, 2022. Its value amounts to an equivalent in euros of €148 million compared to €263 million at December 31, 2021.

10.3.9 Secured debt

At December 31, 2022, €1 million of Group debt is secured by various non-current assets (real estate and securities).

10.3.10 Factoring

The Group has set up several trade receivables factoring programs. Based on an analysis of the risks and rewards as defined by IFRS 9, the Group has derecognized virtually all of the receivables sold under these programs. A total of €644 million in factored receivables were derecognized at December 31, 2022, compared to €492 million at December 31, 2021.

10.4 Financial instruments

The Group uses interest rate, foreign exchange, energy, commodity and equity derivatives to hedge its exposure to changes in interest rates, exchange rates, and energy, commodity and equity prices that may arise in the normal course of business.

In accordance with IAS 32 and IFRS 9, all such instruments are recognized in the balance sheet and measured at fair value, irrespective of whether or not they are part of a hedging relationship that qualifies for hedge accounting under IFRS 9.

Changes in the fair value of both derivatives that are designated and qualified as fair value hedges and derivatives that do not qualify for hedge accounting during the period are taken to the income statement (in business income and expense for operational foreign exchange derivatives and commodity derivatives not qualifying for hedge accounting, and in financial income and expense for all other derivatives). However, in the case of derivatives that qualify as cash flow hedges, the effective portion of the gain or loss arising from changes in fair value is recognized directly in equity, and only the ineffective portion is recognized in the income statement.

Fair value hedges

Fair value hedge accounting is applied by the Group mainly for derivative instruments which swap fixed rates against variable rates (fixed-for-floating interest rate swaps). These derivatives hedge fixed-rate debt exposed to a fair value risk. In accordance with hedge accounting principles, debt included in a designated fair value hedging relationship is remeasured at fair value to the extent of the risk hedged. As the loss or gain on the underlying hedged item offsets the effective portion of the gain or loss on the fair value hedge, the income statement is only impacted by the ineffective portion of the hedge.

Cash flow hedges

Cash flow hedge accounting is applied by the Group mainly for derivative instruments which fix the cost of future investments (financial assets or property, plant and equipment) and the price of future purchases, mostly gas and fuel oil (commodity swaps) or foreign currencies (foreign exchange forwards). Transactions hedged by these instruments are qualified as highly probable. The application of cash flow hedge accounting allows the Group to defer the impact on the income statement of the effective portion of changes in the fair value of these derivatives by recording them in a hedging reserve in equity. This reserve is reclassified to the income statement when the hedged transaction occurs and the hedged item itself affects income. In the same way as for fair value hedges, cash flow hedging limits the Group's exposure to changes in the fair value of these derivatives to the ineffective portion of the hedge.

Derivatives that do not qualify for hedge accounting

Changes in the fair value of derivatives that do not qualify for hedge accounting are recognized in the income statement. The instruments concerned are primarily foreign exchange swaps and foreign exchange forwards.

Fair value of financial instruments

The fair value of financial assets and financial liabilities corresponds to their quoted price on an active market (if any): this represents level 1 in the fair value hierarchy defined in IFRS 7 and IFRS 13. The fair value of instruments not quoted in an active market, such as derivatives or financial assets and liabilities, is determined by reference to commonly used valuation techniques such as the fair value of another recent and similar transaction, or discounted cash flow analysis based on observable market inputs. This represents level 2 in the fair value hierarchy defined in IFRS 7 and IFRS 13.

The fair value of short-term financial assets and liabilities is considered as being the same as their carrying amount due to their short maturities.

The following table presents a breakdown of the main derivatives used by the Group:

	Fair value			Nominal amount by maturity				
(in EUR millions)	Derivatives recorded in assets	Derivatives recorded in liabilities	Dec. 31, 2022	Dec. 31, 2021	Within 1 year	1 to 5 years	Beyond 5 years	Dec. 31, 2022
FAIR VALUE HEDGES	**0**	**0**	**0**	**0**				**0**
Cash flow hedges								
Currency	3	(7)	(4)	6	268	34	0	302
Interest rate	6	(47)	(41)	(60)	0	95	362	457
Energy and commodities	5	(1)	4	6	42	1	0	43
Other risks: equities	1	0	1	12	4	10	0	14
CASH FLOW HEDGES – TOTAL	**15**	**(55)**	**(40)**	**(36)**	**314**	**140**	**362**	**816**
Derivatives not qualifying for hedge accounting mainly contracted by Compagnie de Saint-Gobain								
Currency	15	(12)	3	14	2,304	0	0	2,304
Interest rate	0	(1)	(1)	0	0	6	0	6
Energy and commodities	0	0	0	0	0	0	0	0
DERIVATIVES NOT QUALIFYING FOR HEDGE ACCOUNTING – TOTAL	**15**	**(13)**	**2**	**14**	**2,304**	**6**	**0**	**2,310**
TOTAL	**30**	**(68)**	**(38)**	**(22)**	**2,618**	**146**	**362**	**3,126**

10.4.1 Currency instruments

Currency swaps

The Group uses currency swaps mainly to convert euro-denominated funds into foreign currencies for cash management purposes.

Forward foreign exchange contracts and currency options

Forward foreign exchange contracts and currency options are used to hedge foreign currency transactions, particularly commercial transactions (purchases and sales) and investments.

10.4.2 Interest rate instruments

Interest rate swaps

The Group uses interest rate swaps to convert part of its fixed/variable-rate bank debt and bond debt to variable/fixed rates.

Cross-currency swaps

The Group uses cross-currency swaps to convert foreign currency (euro) debt into euro (foreign currency) debt.

10.4.3 Energy and commodities

Energy and commodity swaps

Energy and commodity swaps are used to hedge the risk of changes in the price of certain purchases used in Group subsidiaries' operating activities, particularly energy (fuel oil, natural gas and electricity) purchases.

10.4.4 Other risks

Equity derivatives

Equity derivatives are used to hedge the risk of changes in the Saint-Gobain share price in connection with the performance units long-term incentive plan.

10.4.5 Credit value adjustments to derivative instruments

Credit value adjustments to derivative instruments are calculated in accordance with IFRS 13 based on historical probabilities of default derived from calculations performed by a leading rating agency and on the estimated loss given default. At December 31, 2022, credit value adjustments were not material.

10.4.6 Impact on equity of financial instruments qualifying for cash flow hedge accounting

At December 31, 2022, the IFRS cash flow hedge reserve carried in equity had a debit balance of €8 million, consisting mainly of:

- a debit balance of €15 million in relation to cross-currency swaps designated as cash flow hedges that are used to convert a GBP bond issue into euros;
- a credit balance of €6 million corresponding to changes in the fair value of interest rate hedges classified as cash flow hedges;
- a credit balance of €4 million corresponding to changes in fair value of energy hedges qualified as cash flow hedges;
- a debit balance of €3 million corresponding to changes in fair value of currency derivatives qualified as cash flow hedges.

The ineffective portion of cash flow hedge derivatives is not material.

10.4.7 Impact on income of financial instruments not qualifying for hedge accounting

The fair value of derivatives classified as "Financial assets and liabilities at fair value through profit or loss" represents a gain of €2 million in 2022 compared to a gain of €14 million in 2021.

10.4.8 Embedded derivatives

The Saint-Gobain Group regularly analyzes its contracts in order to separately identify financial instruments classified as embedded derivatives under IFRS.

At December 31, 2022, no embedded derivatives deemed to be material at Group level were identified.

10.4.9 Group debt structure (excluding lease liabilities)

The weighted average interest rate on total gross debt under IFRS and after hedging (interest rate swaps and cross-currency swaps) was 2.3% at December 31, 2022, compared with 2.1% at December 31, 2021.

The average internal rate of return for the main component of the Group long-term debt before hedging (bonds) was 2.0% at December 31, 2022, compared with 2.5% at December 31, 2021.

The table below presents the breakdown by interest rate (fixed or variable) of the Group's gross debt at December 31, 2022, taking into account interest rate and cross-currency swaps.

	Gross debt, excluding lease liabilities		
(in EUR millions)	Variable rate	Fixed rate	Total
EUR	861	8,807	9,668
Other currencies	644	999	1,643
TOTAL	**1,505**	**9,806**	**11,311**
(in %)	13%	87%	100%
Accrued interest and other			134
TOTAL GROSS DEBT EXCLUDING LEASE LIABILITIES			**11,445**

10.5 Financial assets and liabilities

Financial assets and liabilities are classified as follows in accordance with IFRS 9:

At December 31, 2022

		Financial instruments				Financial instruments at fair value			
(in EUR millions)	Notes	Fair value through profit or loss	Fair value through other comprehensive income	Amortized cost	Total financial instruments	Level 1 inputs	Level 2 inputs	Level 3 inputs	Total financial instruments measured at fair value
Trade and other accounts receivable				6,618	6,618				0
Loans, deposits and surety	(8)			368	368				0
Equity investments and other	(8)		169		169			169	169
Derivatives recorded in assets		15	15		30		30		30
Cash and cash equivalents		3,246		2,891	6,137	3,246			3,246
TOTAL FINANCIAL ASSETS		**3,261**	**184**	**9,877**	**13,322**	**3,246**	**30**	**169**	**3,445**
Trade and other accounts payable				(12,335)	(12,335)				0
Long- and short-term debt				(11,409)	(11,409)				0
Long- and short-term lease liabilities				(2,921)	(2,921)				0
Derivatives recorded in liabilities		(13)	(55)		(68)		(68)		(68)
TOTAL FINANCIAL LIABILITIES		**(13)**	**(55)**	**(26,665)**	**(26,733)**	**0**	**(68)**	**0**	**(68)**
FINANCIAL ASSETS AND LIABILITIES – NET		**3,248**	**129**	**(16,788)**	**(13,411)**	**3,246**	**(38)**	**169**	**3,377**

At December 31, 2021

(in EUR millions)	Notes	Financial instruments: Fair value through profit or loss	Financial instruments: Fair value through other comprehensive income	Financial instruments: Amortized cost	Total financial instruments	Financial instruments at fair value: Level 1 inputs	Level 2 inputs	Level 3 inputs	Total financial instruments measured at fair value
Trade and other accounts receivable				6,573	6,573				0
Loans, deposits and surety	(8)			398	398				0
Equity investments and other	(8)		130		130			130	130
Derivatives recorded in assets		18	27		45		45		45
Cash and cash equivalents		5,218		1,727	6,945	5,218			5,218
TOTAL FINANCIAL ASSETS		**5,236**	**157**	**8,698**	**14,091**	**5,218**	**45**	**130**	**5,393**
Trade and other accounts payable				(11,708)	(11,708)				0
Long- and short-term debt				(11,022)	(11,022)				0
Long- and short-term lease liabilities				(3,155)	(3,155)				0
Derivatives recorded in liabilities		(4)	(63)		(67)		(67)		(67)
TOTAL FINANCIAL LIABILITIES		**(4)**	**(63)**	**(25,885)**	**(25,952)**	**0**	**(67)**	**0**	**(67)**
FINANCIAL ASSETS AND LIABILITIES – NET		**5,232**	**94**	**(17,187)**	**(11,861)**	**5,218**	**(22)**	**130**	**5,326**

IFRS 13 ranks the inputs used to determine fair value:

- Level 1: inputs resulting from quoted prices on an active market for identical instruments;
- Level 2: inputs other than level 1 inputs that can be observed directly or indirectly;
- Level 3: all other non-observable inputs.

NOTE 11 SHAREHOLDERS' EQUITY AND EARNINGS PER SHARE

11.1 Equity

11.1.1 Equity

At December 31, 2022, Saint-Gobain's capital stock was composed of 515,769,082 shares with a par value of €4 (524,017,595 shares at December 31, 2021).

11.1.2 Additional paid-in capital and legal reserve

This item includes capital contributions in excess of the par value of capital stock as well as the legal reserve, which corresponds to a cumulative portion of the yearly net income of Compagnie de Saint-Gobain.

11.1.3 Retained earnings and consolidated net income

Retained earnings and consolidated net income correspond to the Group's share in the undistributed earnings of all consolidated companies.

11.1.4 Treasury stock

Treasury stock is measured at cost and recorded as a deduction from equity. Gains and losses on disposals of treasury stock are recognized directly in equity and have no impact on net income for the period.

Forward purchases of treasury stock are treated in the same way. When a fixed number of shares is purchased forward at a fixed price, this amount is recorded in "Other liabilities" against a deduction from equity under "Retained earnings and net income for the year".

Saint-Gobain shares held or controlled by Compagnie de Saint-Gobain and Saint-Gobain Corporation are shown as a deduction from equity under "Treasury stock" at acquisition cost.

The liquidity agreement signed with Exane BNP Paribas on November 16, 2007 and implemented on December 3, 2007 for a period up to December 31, 2007 has been automatically renewed since that date.

At December 31, 2022, 4,406,990 shares were held in treasury (December 31, 2021: 2,746,687 shares). In 2022, the Group acquired 18,011,705 shares (2021: 16,865,006 shares) directly on the market. The number of shares sold in 2022 was 3,174,316 versus 2,525,353 in 2021. 13,177,086 shares were canceled in 2022, compared with 14,243,174 shares in 2021.

For the purposes of a compensation plan set up in January 2008 for certain employees in the United States, Compagnie de Saint-Gobain shares are held by the trustee, Wachovia Bank, National Association. In the consolidated financial statements, these shares are treated as being controlled by Saint-Gobain Corporation.

11.1.5 Number of shares

	Number of shares	
	Issued	Outstanding
NUMBER OF SHARES AT DECEMBER 31, 2020	**532,683,713**	**530,033,505**
Group Savings Plan	5,562,855	5,562,855
Stock subscription option plans	14,201	14,201
Shares purchased		(16,865,006)
Shares sold		2,525,353
Shares canceled	(14,243,174)	
NUMBER OF SHARES AT DECEMBER 31, 2021	**524,017,595**	**521,270,908**
Group Savings Plan	4,916,097	4,916,097
Stock subscription option plans	12,476	12,476
Shares purchased		(18,011,705)
Shares sold		3,174,316
Shares canceled	(13,177,086)	
NUMBER OF SHARES AT DECEMBER 31, 2022	**515,769,082**	**511,362,092**

11.1.6 Dividends

The Annual Shareholders' Meeting of June 2, 2022 approved the recommended dividend payout for 2021 representing €1.63 per share. The ex-dividend date was June 6 and the dividend was paid on June 8, 2022.

11.2 Earnings per share

11.2.1 Basic earnings per share

Basic earnings per share are calculated by dividing net income by the weighted average number of shares of the Group outstanding during the period.

Basic earnings per share are as follows:

	2022	2021
Group share of net income (in EUR millions)	3,003	2,521
Weighted average number of shares in issue	514,372,413	526,244,506
BASIC EARNINGS PER SHARE, GROUP SHARE (in EUR)	**5.84**	**4.79**

11.2.2 Diluted earnings per share

Diluted earnings per share are calculated by adjusting earnings per share and the average number of shares outstanding for the effects of all potential dilutive common shares, such as stock options and performance shares.

Diluted earnings per share are as follows:

	2022	2021
Group share of net income (in EUR millions)	3,003	2,521
Weighted average number of shares assuming full dilution	517,595,809	529,905,261
DILUTED EARNINGS PER SHARE, GROUP SHARE (in EUR)	**5.80**	**4.76**

The weighted average number of shares assuming full dilution is calculated based on the weighted average number of shares outstanding, assuming conversion of all dilutive instruments. The Group's dilutive instruments include stock options and performance share grants, corresponding to a weighted average of 113,095 and 3,110,301 instruments, respectively, at December 31, 2022.

NOTE 12 TAX

12.1 Income taxes

Current income tax is the estimated amount of tax payable in respect of income for a given period, calculated by reference to the tax rates that have been enacted or substantively enacted at the end of the reporting period, plus any adjustments to current taxes recorded in previous financial periods.

Income tax expense breaks down as follows:

(in EUR millions)	2022	2021
CURRENT TAXES	**(1,052)**	**(843)**
France	(164)	(104)
Outside France	(888)	(739)
DEFERRED TAXES	**(30)**	**(76)**
France	4	(13)
Outside France	(34)	(63)
TOTAL INCOME TAX EXPENSE	**(1,082)**	**(919)**

Theoretical tax expense was reconciled with current tax expense using a tax rate of 25.82% in 2022 and 28.41% in 2021, and can be analyzed as follows:

(in EUR millions)	2022	2021
Net income	3,101	2,614
Less:		
Share in net income of equity-accounted companies	66	56
Income taxes	(1,082)	(919)
PRE-TAX INCOME OF CONSOLIDATED COMPANIES	**4,117**	**3,477**
French tax rate	25.82%	28.41%
Theoretical tax expense at French tax rate	(1,063)	(988)
Impact of different tax rates	48	117
Asset impairment, capital gains and losses on asset disposals	(100)	(34)
Deferred tax assets not recognized and provisions for deferred tax assets	56	75
Liability method		(106)
Research tax credit and value-added contribution for businesses (CVAE)	(10)	(6)
Deduction of interest not deductible in France		15
Costs related to dividends	(28)	(39)
Other taxes and changes in provisions	15	47
TOTAL INCOME TAX EXPENSE	**(1,082)**	**(919)**

The contribution of countries with low tax rates explains the impact of the different tax rates applicable outside France. The main contributors are Poland, Ireland, Switzerland, Sweden, Czechia, Romania and Norway.

The increase in future tax rates for the United Kingdom from 19% to 25% (applicable as of April 1, 2023) led the Group to recognize a tax expense of €106 million for 2021 in connection with the liability method.

12.2 Deferred tax

Deferred tax assets and liabilities are recorded using the balance sheet method for temporary differences between the carrying amount of assets and liabilities and their tax basis. Deferred tax assets and liabilities are measured at the tax rates expected to apply to the period when the asset is realized or the liability settled, based on the tax laws that have been enacted or substantively enacted at the end of the reporting period.

No deferred tax liability is recognized in respect of undistributed earnings of subsidiaries that are not intended to be distributed.

For investments in subsidiaries, deferred tax is recognized on the difference between the consolidated carrying amount of the investments and their tax basis when it is probable that the temporary difference will reverse in the foreseeable future.

Deferred taxes are recognized as income or expense in the income statement, unless they relate to items that are recognized directly in equity, in which case they are also recognized in equity. Income tax resulting from changes in tax rates is recognized in income, except where it relates to items initially recognized in equity.

In the balance sheet, changes in net deferred tax assets and liabilities break down as follows:

(in EUR millions)	Net deferred tax asset/ (liability)
NET VALUE AT JANUARY 1, 2021	**305**
Deferred tax (expense)/benefit	(76)
Changes in deferred taxes relating to actuarial gains and losses (IAS 19)	(196)
Liability method on actuarial gains and losses*	60
Translation adjustments and restatement for hyperinflation	(11)
Changes in Group structure and other	(61)
NET VALUE AT DECEMBER 31, 2021	**21**
Deferred tax (expense)/benefit	(30)
Changes in deferred taxes relating to actuarial gains and losses (IAS 19)	(10)
Translation adjustments and restatement for hyperinflation	57
Assets and liabilities held for sale	2
Changes in Group structure and other	(426)
NET VALUE AT DECEMBER 31, 2022	**(386)**

* *In 2021, the liability method on actuarial gains and losses mainly concerned the United Kingdom.*

Changes in Group structure in 2022 mainly concern the first-time consolidation of GCP Applied Technologies and Kaycan, as well as the finalization of the Chryso purchase price accounting. In 2021, changes in Group structure related mainly to the first-time consolidation of Chryso.

The table below shows the main deferred tax components:

(in EUR millions)	Dec. 31, 2022	Dec. 31, 2021
Pensions	232	246
Brands, customer relationships and intellectual property	(863)	(512)
Depreciation and amortization, accelerated capital allowances and tax-driven provisions	(717)	(693)
Tax loss carry-forwards	294	410
Other	668	570
NET DEFERRED TAX	**(386)**	**21**
Of which:		
Deferred tax assets	382	576
Deferred tax liabilities	(768)	(555)

Deferred taxes are offset at the level of each tax entity, i.e., by tax group where applicable (mainly in France, the United Kingdom, Spain, Germany, the United States and the Netherlands).

Deferred tax assets of €382 million were recognized at December 31, 2022 (€576 million at December 31, 2021), primarily in Germany (€93 million), Brazil (€79 million), Italy (€39 million), China (€39 million) and Mexico (€37 million). Deferred tax liabilities of €768 million were recognized at December 31, 2022 (€555 million at December 31, 2021), including €228 million in the United Kingdom, €133 million in Canada, €93 million in France, €56 million in Switzerland, €48 million in the United States, €37 million in India and €37 million in Denmark. Deferred tax liabilities recognized in other countries represented considerably smaller amounts.

12.3 Tax loss carry-forwards

Deferred tax assets are recognized only if it is considered probable that there will be sufficient future taxable income against which the temporary difference can be utilized. They are reviewed at the end of each reporting period and written down to the extent that it is no longer probable that there will be sufficient taxable income against which the temporary difference can be utilized. In determining whether to recognize deferred tax assets for tax loss carry-forwards, the Group applies a range of criteria that take into account the probable recovery period based on business plans and the strategy for the long-term recovery of tax losses applied in each country.

The Group recognized deferred tax assets for tax loss carry-forwards for a net amount of €294 million at December 31, 2022 and €410 million at December 31, 2021. This principally relates to the United States, for which the recovery period is shorter than the maximum utilization period of 20 years, and to France, Germany and Spain, where tax consolidation generally ensures that deferred tax can be recovered. In these countries, tax losses may be carried forward indefinitely. Nevertheless, after analyzing each situation, the Group may decide not to recognize them.

At December 31, 2022, deferred tax assets whose recovery is not considered probable totaled €274 million (December 31, 2021: €299 million) and a provision had been accrued for the full amount. Provisions for deferred tax assets chiefly relate to Germany, Spain, the United States, China, France and Belgium.

The improved deferred tax position in France in 2022 led to a reversal of provisions for losses of €59 million, in addition to the €53 million reversal in 2021.

NOTE 13 SUBSEQUENT EVENTS

On January 18, 2023, Compagnie de Saint-Gobain issued a €1.15 billion bond split into two tranches:

- a €500 million tranche maturing July 18, 2024 and paying a floating-rate coupon of 3-month Euribor +0.20%;
- a €650 million tranche maturing January 18, 2029 and paying a coupon of 3.5%.

This issue has no impact on the financial statements at December 31, 2022.

NOTE 14 FEES PAID TO THE STATUTORY AUDITORS

Total fees paid to the Statutory Auditors and recognized in the income statement in 2022 and 2021 break down as follows:

	Deloitte		PWC		KPMG			
	2022		2021		2022		2021	
(in EUR millions)	Amount before tax	%	Amount before tax	%	Amount before tax	%	Amount before tax	%
Accounts certification services								
Issuer	0.8	10%	0.8	6%	0.9	9%	1.0	11%
Fully consolidated subsidiaries	6.4	80%	8.4	65%	8.5	81%	7.3	82%
SUBTOTAL	**7.2**	**90%**	**9.2**	**71%**	**9.4**	**90%**	**8.3**	**93%**
Services other than accounts certification*								
Issuer	0.2	3%	0.2	2%	0.1	1%	0.0	—%
Fully consolidated subsidiaries	0.6	7%	3.5	27%	0.9	9%	0.6	7%
SUBTOTAL	**0.8**	**10%**	**3.7**	**29%**	**1.0**	**10%**	**0.6**	**7%**
TOTAL	**8.0**	**100%**	**12.9**	**100%**	**10.4**	**100%**	**8.9**	**100%**

* *Non-audit services provided by the Statutory Auditors to the parent company and its subsidiaries mainly comprise (i) independent third party verification procedures performed on the consolidated social, environmental and corporate information, (ii) accounting, tax and regulatory advisory services, and (iii) training.*

NOTE 15 INFORMATION ON THE ISSUER

Name or other identification of the reporting entity	Compagnie de Saint-Gobain
Company address	Registered office Tour Saint-Gobain 12, place de l'Iris 92400 Courbevoie
Legal form of the entity	French *société anonyme* (joint-stock company)
Country of incorporation	France
Address of the company's registered office	Tour Saint-Gobain 12, place de l'Iris 92400 Courbevoie
Main place of establishment	France
Nature of the company's operations and its main activities	Saint-Gobain aspires to be the worldwide leader in sustainable construction, which improves everyone's daily life with its High Performance Solutions
Company LEI code	NFONVGN05Z0FMN5PEC35

NOTE 16 PRINCIPAL CONSOLIDATED COMPANIES

The table below shows the Group's principal consolidated companies, typically those with annual sales of over €100 million.

High Performance Solutions	Country	Consolidation method	Percentage held directly and indirectly
Saint-Gobain Diamantwerkzeuge GmbH, Norderstedt*	Germany	Full consolidation	100.00%
Saint-Gobain Abrasives GmbH, Wesseling*	Germany	Full consolidation	100.00%
Supercut Europe GmbH, Baesweiler*	Germany	Full consolidation	100.00%
Saint-Gobain Performance Plastics Isofluor GmbH, Neuss*	Germany	Full consolidation	100.00%
Saint-Gobain Performance Plastics Pampus GmbH, Willich*	Germany	Full consolidation	100.00%
Saint-Gobain Performance Plastics L+S GmbH, Wertheim*	Germany	Full consolidation	100.00%
Saint-Gobain Performance Plastics Biolink GmbH, Waakirchen*	Germany	Full consolidation	100.00%
Saint-Gobain Adfors Deutschland GmbH, Neustadt an der Donau*	Germany	Full consolidation	100.00%
H.K.O. Isolier- und Textiltechnik GmbH, Oberhausen*	Germany	Full consolidation	100.00%
BEUHKO Fasertechnik GmbH, Leinefelde-Worbis*	Germany	Full consolidation	100.00%
Freudenberger Autoglas GmbH, München*	Germany	Full consolidation	99.99%
Freeglass GmbH & Co. KG, Schwaikheim*	Germany	Full consolidation	99.99%
Freeglass Verwaltungsgesellschaft mbH*	Germany	Full consolidation	99.99%
Saint-Gobain Sekurit Deutschland GmbH, Herzogenrath*	Germany	Full consolidation	99.99%
Saint-Gobain Sekurit Deutschland Beteiligungen GmbH, Herzogenrath*	Germany	Full consolidation	99.99%
FABA Autoglas Technik GmbH & Co. Betriebs-KG, Berlin*	Germany	Full consolidation	99.99%
Saint-Gobain Autover Deutschland GmbH, Kerpen*	Germany	Full consolidation	99.99%
Saint-Gobain Innovative Materials Belgium	Belgium	Full consolidation	99.98%
Saint-Gobain Do Brasil Produtos Industriais e Para Construçao Ltda	Brazil	Full consolidation	100.00%
Saint-Gobain Canada Inc.	Canada	Full consolidation	100.00%
Saint-Gobain Performance Plastics (Shanghaï) Co., LTD	China	Full consolidation	100.00%
Saint-Gobain Abrasives (Shanghaï) Co., LTD	China	Full consolidation	99.99%
SG Hanglas Sekurit (Shanghaï) Co., LTD	China	Full consolidation	99.81%
SG Join Leader (Hangzhou) New Materials Co.,LTD.	China	Full consolidation	100.00%
Hankuk Sekurit Limited	South Korea	Full consolidation	99.63%
Saint-Gobain Cristaleria S.L	Spain	Full consolidation	99.83%
Saint-Gobain Adfors America, Inc.	United States	Full consolidation	100.00%
Saint-Gobain Performance Plastics Corporation	United States	Full consolidation	100.00%
Saint-Gobain Abrasives, Inc.	United States	Full consolidation	100.00%
Saint-Gobain Ceramics & Plastics, Inc.	United States	Full consolidation	100.00%
Saint-Gobain Corporation	United States	Full consolidation	100.00%
GCP Applied Technologies, Inc.	United States	Full consolidation	100.00%
Chryso	France	Full consolidation	100.00%
Saint-Gobain Abrasifs	France	Full consolidation	99.99%
Société Européenne des Produits Réfractaires - SEPR	France	Full consolidation	100.00%
Saint-Gobain Sekurit France	France	Full consolidation	100.00%
Grindwell Norton Ltd	India	Full consolidation	51.59%
Saint-Gobain Sekurit Italia S.R.L.	Italy	Full consolidation	100.00%
Saint-Gobain K.K.	Japan	Full consolidation	100.00%
Saint-Gobain America S.A De C.V	Mexico	Full consolidation	99.83%
Saint-Gobain Mexico	Mexico	Full consolidation	99.83%
Saint-Gobain Abrasives BV	Netherlands	Full consolidation	100.00%
Saint-Gobain HPM Polska Sp Zoo	Poland	Full consolidation	100.00%
Saint-Gobain Innovative Materials Polska Sp Zoo	Poland	Full consolidation	99.97%
Saint-Gobain Adfors CZ, S.R.O.	Czechia	Full consolidation	100.00%
Saint-Gobain Sekurit CZ, Spol S.R.O	Czechia	Full consolidation	99.99%

Northern Europe	Country	Consolidation method	Percentage held directly and indirectly
Saint-Gobain Glass Deutschland GmbH, Stolberg*	Germany	Full consolidation	99.99%
Flachglas Torgau GmbH, Torgau*	Germany	Full consolidation	99.99%
Saint-Gobain Weisswasser GmbH, Aachen*	Germany	Full consolidation	99.99%
Saint-Gobain Deutsche Glas GmbH, Stolberg*	Germany	Full consolidation	99.99%
Vetrotech Saint-Gobain Würselen GmbH, Würselen*	Germany	Full consolidation	99.99%
Saint-Gobain Glassolutions Isolierglas-Center GmbH, Bamberg*	Germany	Full consolidation	99.99%
Kaimann GmbH	Germany	Full consolidation	100.00%
Saint-Gobain Isover G+H Aktiengesellschaft*	Germany	Full consolidation	99.91%
Saint-Gobain Rigips GmbH*	Germany	Full consolidation	100.00%
Saint-Gobain Weber GmbH	Germany	Full consolidation	100.00%
Saint-Gobain PAM Deutschland GmbH	Germany	Full consolidation	100.00%
Saint-Gobain Glassolutions Augustdorf*	Germany	Full consolidation	99.99%
Saint-Gobain Brüggemann Holzbau GmbH, Neuenkirchen*	Germany	Full consolidation	100.00%
Brüggemann Dach- & Wandtechnik GmbH, Neuenkirchen*	Germany	Full consolidation	100.00%
Brüggemann Effizienzhaus GmbH, Neuenkirchen*	Germany	Full consolidation	100.00%
SG Formula GmbH*	Germany	Full consolidation	100.00%
SG Beteiligungen Gmbh*	Germany	Full consolidation	100.00%
Saint-Gobain Austria GmbH	Austria	Full consolidation	100.00%
Saint-Gobain Denmark A/S	Denmark	Full consolidation	100.00%
Saint-Gobain Distribution Denmark	Denmark	Full consolidation	100.00%
Optimera Estonia A/S (currently AS Famar-Desi)	Estonia	Full consolidation	100.00%
Saint-Gobain Finland OY	Finland	Full consolidation	100.00%
Dahl Suomi OY	Finland	Full consolidation	100.00%
Saint-Gobain Construction Products (Ireland) Limited	Ireland	Full consolidation	100.00%
Glava As	Norway	Full consolidation	100.00%
Saint-Gobain Byggevarer AS	Norway	Full consolidation	100.00%
Brødrene Dahl As (Norway)	Norway	Full consolidation	100.00%
Optimera As	Norway	Full consolidation	100.00%
Saint-Gobain Polska Sp Zoo	Poland	Full consolidation	99.98%
Saint-Gobain Construction Products Polska Sp Zoo	Poland	Full consolidation	100.00%
Saint-Gobain Construction Products CZ AS	Czechia	Full consolidation	100.00%
Saint-Gobain Construction Products Romania Srl	Romania	Full consolidation	100.00%
Saint-Gobain Glass Romania Srl	Romania	Full consolidation	100.00%
Saint-Gobain Glass (United Kingdom) Limited	United Kingdom	Full consolidation	100.00%
Saint-Gobain Construction Products United Kingdom Ltd	United Kingdom	Full consolidation	100.00%
Saint-Gobain Building Distribution Ltd	United Kingdom	Full consolidation	100.00%
Saint-Gobain Construction Products Russia ooo	Russia	Full consolidation	100.00%
SG Construction Products S.R.O.	Slovakia	Full consolidation	100.00%
Saint-Gobain Ecophon AB	Sweden	Full consolidation	100.00%
Saint-Gobain Sweden AB	Sweden	Full consolidation	100.00%
Dahl Sverige AB	Sweden	Full consolidation	100.00%
Vetrotech Saint-Gobain International	Switzerland	Full consolidation	100.00%
Saint-Gobain Weber AG	Switzerland	Full consolidation	100.00%
Sanitas Troesch Ag	Switzerland	Full consolidation	100.00%

Southern Europe – ME & Africa	Country	Consolidation method	Percentage held directly and indirectly
Saint-Gobain Construction Products South Africa (Pty) Ltd	South Africa	Full consolidation	100.00%
Saint-Gobain Construction Products Belgium	Belgium	Full consolidation	100.00%
SG Glass Egypte S.A.E.	Egypt	Full consolidation	70.00%
Saint-Gobain Cristaleria S.L	Spain	Full consolidation	99.83%
Saint-Gobain Placo Iberica	Spain	Full consolidation	99.83%
Saint-Gobain Idaplac, S.L.	Spain	Full consolidation	99.83%
Saint-Gobain Distribucion Construccion, S.L	Spain	Full consolidation	99.83%
SG PAM Espana S.A.	Spain	Full consolidation	99.83%
SG Isover Iberica S.L	Spain	Full consolidation	99.83%
Saint-Gobain Glass Solutions Menuisiers Industriels	France	Full consolidation	100.00%
Saint-Gobain Glass France	France	Full consolidation	100.00%
Eurofloat	France	Full consolidation	100.00%
Placoplatre SA	France	Full consolidation	99.80%
Saint-Gobain Isover	France	Full consolidation	100.00%
Saint-Gobain Weber	France	Full consolidation	100.00%
Saint-Gobain PAM Canalisation	France	Full consolidation	100.00%
Distribution Sanitaire Chauffage	France	Full consolidation	100.00%
Saint-Gobain Distribution Bâtiment France	France	Full consolidation	100.00%
SG Eurocoustic	France	Full consolidation	100.00%
Saint-Gobain Glass Italia S.p.a	Italy	Full consolidation	100.00%
Saint-Gobain Italia S.p.a	Italy	Full consolidation	100.00%
Saint-Gobain Construction Products Nederland BV	Netherlands	Full consolidation	100.00%
Izocam Ticaret VE Sanayi A.S.	Turkey	Full consolidation	50.00%

Asia-Pacific	Country	Consolidation method	Percentage held directly and indirectly
SG Innovation Materials (Changxing) Co., Ltd	China	Full consolidation	100.00%
Saint-Gobain India Private Limited	India	Full consolidation	99.03%
Mag-Isover K.K.	Japan	Full consolidation	99.98%
Saint-Gobain Vietnam Ltd	Vietnam	Full consolidation	100.00%

Americas	Country	Consolidation method	Percentage held directly and indirectly
Saint-Gobain Argentina S.A	Argentina	Full consolidation	100.00%
Cebrace Cristal Plano Ltda	Brazil	Full consolidation	50.00%
Saint-Gobain Do Brasil Produtos Industriais e Para Construçao Ltda	Brazil	Full consolidation	100.00%
Saint-Gobain Canalizaçao Ltda	Brazil	Full consolidation	100.00%
Saint-Gobain Distribuiçao Brasil Ltda	Brazil	Full consolidation	100.00%
Saint-Gobain Mexico	Mexico	Full consolidation	99.83%
CertainTeed Canada, Inc.	Canada	Full consolidation	100.00%
Certain Teed LLC	United States	Full consolidation	100.00%
Kaycan Ltd	United States	Full consolidation	100.00%
KP Building Products Ltd	United States	Full consolidation	100.00%
GCP Applied Technologies, Inc.	United States	Full consolidation	100.00%
Saint-Gobain Gypsum USA, Inc.	United States	Full consolidation	100.00%
CertainTeed Ceilings Corporation	United States	Full consolidation	100.00%

* *German consolidated subsidiary or sub-group with corporate or limited liability status and meeting the criteria under Articles 264 paragraph 3, 264b and 291 of the German Commercial Code (HGB) exempting the relevant entities and sub-groups from publishing their statutory and consolidated financial statements or notes to the financial statements and management reports (entities or sub-groups above or below the €100 million threshold).*

8.2 STATUTORY AUDITORS' REPORT ON THE CONSOLIDATED FINANCIAL STATEMENTS

(For the year ended December 31, 2022)

Opinion

In compliance with the engagement entrusted to us by your annual general meeting, we have audited the accompanying consolidated financial statements of the Compagnie de Saint-Gobain Company for the year ended on December 31, 2022.

In our opinion, the consolidated financial statements give a true and fair view of the assets and liabilities and of the financial position of the Group as at December 31, 2022, and of the results of its operations for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union.

The audit opinion expressed above is consistent with our report to the Audit and Risk Committee.

Basis for Opinion

Audit Framework

We conducted our audit in accordance with professional standards applicable in France. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our responsibilities under those standards are further described in the Statutory Auditors' Responsibilities for the Audit of the Consolidated Financial Statements section of our report.

Independence

We conducted our audit engagement in compliance with independence requirements of the French Commercial Code (code de commerce) and the French Code of Ethics (code de déontologie) for statutory auditors, for the period from January 1, 2022, to the date of our report, and specifically we did not provide any prohibited non-audit services referred to in Article 5(1) of Regulation (EU) No 537/2014.

Justification of Assessments – Key Audit Matters

In accordance with the requirements of Articles L. 823-9 and R. 823-7 of the French Commercial Code (code de commerce) relating to the justification of our assessments, we inform you of the key audit matters relating to risks of material misstatement that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period, as well as how we addressed those risks.

These matters were addressed in the context of our audit of the consolidated financial statements as a whole, approved in the conditions mentioned above, and in forming our opinion thereon, and we do not provide a separate opinion on specific items of the consolidated financial statements.

Valuation of goodwill, intangible assets and property, plant and equipment

Description of risk

The net carrying amounts of goodwill, other intangible assets and property, plant and equipment were material at December 31, 2022, representing €12,858 million, €4,026 million, and €12,163 million, respectively that is to say 52% of total assets.

These assets may present a risk of impairment due to internal or external factors, including decisions to change the Group's strategy in certain markets, a decline in Group performance, the Group's commitments to carbon neutrality, changes in competition, unfavorable market conditions and changes in legislation or regulations. These changes are likely to have an impact on the Group's forecast cash flow and, consequently, the recoverable amount of assets.

The impairment tests performed by Management using the method described in Note 7.5 to the consolidated financial statements led to book an impairment losses of €299 million in the year ended December 31, 2022 (mainly including an impairment on assets held for sale related to the distribution activity in UK), as indicated in notes 4.3 and 5.1.4 to the consolidated financial statements.

The valuation of these assets is a key audit matter, particularly for the cash generating units presenting a risk of impairment, given the materiality of their amount in the consolidated balance sheet and the high level of judgment required by Management in assessing impairment losses. Judgements include multiples of a normative basis of performance and assumptions regarding future changes in revenue in volume and value, profitability, investments and other cash flows related to the operation of these assets, as well as the determination of an appropriate discount rate applied to future cash flows.

How our audit addressed this risk

We familiarized ourselves with the procedures implemented within the Group for impairment testing purposes, particularly with regard to the impacts of the Group's commitments to carbon neutrality and exercised our professional judgment to assess the position adopted by Management. We tested the effectiveness of the controls implemented by the Group to ensure the quality and reliability of these procedures and their consistency with data from the budget and the medium-term business plan prepared by Management.

We also assessed the consistency and relevance of Management's approach to determining the cash-generating units for asset impairment testing. We adapted our audit approach to the risk of impairment, which varies depending on the cash-generating unit.

Our valuation specialists performed an independent analysis of certain key assumptions used by Management for impairment testing purposes, in particular the discount rate, the average perpetual growth rate or multiples of a normative performance basis deemed appropriate to the valuation of cash-generating units, by referring to both external market data and comparable company analyses.

For the most sensitive cash-generating units presenting a risk of impairment, we analyzed the consistency of future cash flow projections with regard to past performance and our knowledge of the business, confirmed by interviews with the Heads of the relevant Businesses. We paid particularly close attention to the calculation of the normalized amount of terminal cash flows projected to perpetuity. We performed our own sensitivity analyses of certain key variables of the measurement model, particularly with regard to the inclusion of CO_2 emissions when assessing the materiality of potential impacts on the recoverable amounts of the most high-risk assets.

For the cash-generating unit of the UK distribution for which the Group has retained the fair value less costs to sell, we verified the consistency of the fair value adopted with signed sales agreements and reviewed the method of calculating the impairment loss resulting from the transaction.

We verified that the disclosures provided in the notes 5.1.4, 7.1, 7.2, 7.3 et 7.5 to the consolidated financial statements on the valuation of goodwill, intangible assets and property, plant and equipment, the underlying assumptions and sensitivity analyses were appropriate.

Measurement of provisions related to asbestos litigations in the United States of America

Description of risk

As indicated in note 9.2.2 to the consolidated financial statements, the risk of being called upon to finance the costs of the bankruptcy proceedings of DBMP LLC, an affiliate of CertainTeed LLC which holds the historical assets of the former entity CertainTeed Corporation, is subject to a provision amounting to $410m (€385m) at December 31, 2022.

With regard to this funding risk, determining and measuring the provision recognized for contingent liabilities and litigation and assessing the appropriateness of the related disclosures in the notes to the consolidated financial statements are a key audit matter given the amounts involved and the high degree of estimation and judgment required by Management in determining this provision. Judgment is required, in particular, to assess the status and resolution of the ongoing legal proceedings (in particular the voluntary petition for relief under Chapter 11): duration, cost, estimation of the number of current and future cases covered, definition of the damages by the judicial authority, etc.

How our audit addressed this risk

To obtain an understanding of contingent liabilities and litigation regarding asbestos in the United States and the related judgments made, we held discussions with Management and lawyers chosen by Management, at the Group and country level as well as at the main subsidiaries concerned. We also contacted certain law firms and external experts chosen by Management to assist them with the monitoring of these risks.

We have:

- examined the minutes of the Board of Directors' meetings and the Group's risk mapping prepared by Management and presented to the Audit and Risk Committee;
- familiarized ourselves with the procedures implemented by Management when measuring the provisions for asbestos-related risks in the United States and determining the disclosures thereon in the notes to the consolidated financial statements;
- assessed the permanence of methods and performed a critical review of internal analyses relating to the probability and possible impact of these contingent liabilities and new items of litigation by examining the available information relating to the proceedings (correspondence, judgments, notifications, etc.). We also reviewed the responses to the confirmation letters of the law firms chosen by Management, particularly in terms of their experience at resolving comparable situations in the past. We also used our professional judgment to assess the positions adopted by Management, to see where they fell within risk assessment ranges and the consistency of those positions over time;
- verified the arithmetical accuracy of the calculations of changes in provisions and the consistency of the main items of change in relation to the underlying data, in particular the payments made during the year in respect of these risks.

We assessed if the appropriateness of the disclosures provided in the note 9.2.2 to the consolidated financial statements regarding these items of litigation and contingent liabilities identified.

Specific Verifications

We have also performed, in accordance with professional standards applicable in France, the specific verifications required by laws and regulations of the information pertaining to the Group presented in the management report of Board of Directors.

We have no matters to report as to its fair presentation and its consistency with the consolidated financial statements.

We attest that the consolidated non-financial statement required by Article L.225-102-1 of the French Commercial Code (code de commerce) is included in the information pertaining to the Group presented in the management report, it being specified that, in accordance with the provisions of Article L.823-10 of the code, we have verified neither the fair presentation nor the consistency with the consolidated financial statements of the information contained therein. This information should be reported on by an independent third party.

Other Legal and Regulatory Verifications or Information

Format of presentation of the consolidated financial statements intended to be included in the annual financial report

We have also verified, in accordance with the professional standard applicable in France relating to the procedures performed by the statutory auditor relating to the annual and consolidated financial statements presented in the European single electronic format, that the presentation of the consolidated financial statements intended to be included in the annual financial report mentioned in Article L. 451-1-2, I of the French Monetary and Financial Code (*code monétaire et financier*), prepared under the responsibility of the General Manager, complies with the single electronic format defined in the European Delegated Regulation No 2019/815 of 17 December 2018. As it relates to consolidated financial statements, our work includes verifying that the tagging of these consolidated financial statements complies with the format defined in the above delegated regulation.

Based on the work we have performed, we conclude that the presentation of the consolidated financial statements intended to be included in the annual financial report complies, in all material respects, with the European single electronic format.

Due to the technical limitations inherent to the block-tagging of the consolidated financial statements according to the European single electronic format, the content of certain tags of the notes may not be rendered identically to the accompanying consolidated financial statements.

Moreover, we have no responsibility to verify that the consolidated financial statements that will ultimately be included by your company in the annual financial report filed with the AMF are in agreement with those on which we have performed our work.

Appointment of the Statutory Auditors

We were appointed as statutory auditors of Compagnie de Saint-Gobain by the annual general meeting held on June 10, 2004, for KPMG and on June 2, 2022 for Deloitte & Associés.

As at December 31, 2022, KPMG and Deloitte & Associés were in the 19th year and 1st year of total uninterrupted engagement.

Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with International Financial Reporting Standards as adopted by the European Union, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless it is expected to liquidate the Company or to cease operations.

The Audit and Risk Committee is responsible for monitoring the financial reporting process and the effectiveness of internal control and risks management systems and where applicable, its internal audit, regarding the accounting and financial reporting procedures.

The consolidated financial statements were approved by the Board of Directors.

Statutory Auditors' Responsibilities for the Audit of the Consolidated Financial Statements

Objectives and audit approach

Our role is to issue a report on the consolidated financial statements. Our objective is to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with professional standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As specified in Article L. 823-10-1 of the French Commercial Code (code de commerce), our statutory audit does not include assurance on the viability of the Company or the quality of management of the affairs of the Company.

As part of an audit conducted in accordance with professional standards applicable in France, the statutory auditor exercises professional judgment throughout the audit and furthermore:

- identifies and assesses the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, designs and performs audit procedures responsive to those risks, and obtains audit evidence considered to be sufficient and appropriate to provide a basis for his opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- obtains an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control;
- evaluates the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management in the consolidated financial statements;
- assesses the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. This assessment is based on the audit evidence obtained up to the date of his audit report. However, future events or conditions may cause the Company to cease to continue as a going concern. If the statutory auditor concludes that a material uncertainty exists, there is a requirement to draw attention in the audit report to the related disclosures in the consolidated financial statements or, if such disclosures are not provided or inadequate, to modify the opinion expressed therein;
- evaluates the overall presentation of the consolidated financial statements and assesses whether these statements represent the underlying transactions and events in a manner that achieves fair presentation;
- obtains sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. The statutory auditor is responsible for the direction, supervision and performance of the audit of the consolidated financial statements and for the opinion expressed on these consolidated financial statements.

Report to the Audit and Risk Committee

We submit a report to the Audit and Risk Committee which includes in particular a description of the scope of the audit and the audit program implemented, as well as the results of our audit. We also report, if any, significant deficiencies in internal control regarding the accounting and financial reporting procedures that we have identified.

Our report to the Audit and Risk Committee includes the risks of material misstatement that, in our professional judgment, were of most significance in the audit of the consolidated financial statements of the current period and which are therefore the key audit matters, that we are required to describe in this report.

We also provide the Audit and Risk Committee with the declaration provided for in Article 6 of Regulation (EU) N° 537/2014, confirming our independence within the meaning of the rules applicable in France such as they are set in particular by Articles L. 822-10 to L. 822-14 of the French Commercial Code and in the French Code of Ethics (code de déontologie) for statutory auditors. Where appropriate, we discuss with the Audit and Risk Committee the risks that may reasonably be thought to bear on our independence, and the related safeguards.

Paris-La Défense, February 23, 2023

The Statutory Auditors

French original signed by

KPMG S.A.		Deloitte & Associés	
Pierre-Antoine DUFFAUD	Laurent CHILLET	Frédéric GOURD	Bénédicte MARGERIN

8.3 COMPAGNIE DE SAINT-GOBAIN 2022 ANNUAL FINANCIAL STATEMENTS (PARENT COMPANY)

INCOME STATEMENT

(in EUR millions)	2022	2021
OPERATING REVENUE		
SALES	**383**	**301**
Other operating income	86	69
TOTAL	**469**	**370**
OPERATING EXPENSES		
Other purchases and external charges	(364)	(283)
Taxes other than on income	(8)	(10)
Payroll costs	(82)	(86)
Depreciation, amortization, impairment and provisions	(23)	(19)
Other operating expenses	(2)	(2)
TOTAL	**(479)**	**(400)**
OPERATING INCOME/(LOSS) (NOTE 2)	**(10)**	**(30)**
FINANCIAL INCOME		
Income from investments in subsidiaries and affiliates	1,201	927
Income from loans and other investments	315	279
Other financial income	35	359
TOTAL	**1,551**	**1,565**
FINANCIAL EXPENSE		
Interest expense	(263)	(245)
Other financial expense	(16)	(25)
TOTAL	**(279)**	**(270)**
NET FINANCIAL INCOME (NOTE 3)	**1,272**	**1,295**
INCOME BEFORE TAX AND EXCEPTIONAL ITEMS	**1,262**	**1,265**
NET EXCEPTIONAL INCOME/(EXPENSE) (NOTE 4)	**(19)**	**(68)**
INCOME TAXES (NOTE 5)	**253**	**261**
NET INCOME	**1,496**	**1,458**

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BALANCE SHEET

Assets

(in EUR millions)	Dec. 31, 2022 Gross	Dec. 31, 2022 Depreciation, amortization, and impairment	Dec. 31, 2022 Net	Dec. 31, 2021
INTANGIBLE ASSETS (Note 6)	**56**	**(52)**	**4**	**6**
PROPERTY, PLANT AND EQUIPMENT (Note 7)	**92**	**(26)**	**66**	**71**
Investments in subsidiaries and affiliates	14,136	(43)	14,093	13,837
Loans and advances to subsidiaries and affiliates	14,882		14,882	12,766
Other financial investments	1,298	0	1,298	825
FINANCIAL INVESTMENTS (Note 8)	**30,316**	**(43)**	**30,273**	**27,428**
NON-CURRENT ASSETS	**30,464**	**(121)**	**30,343**	**27,505**
Other receivables	884	0	884	752
Marketable securities	2,817	(2)	2,815	4,748
Cash and cash equivalents	1,651	0	1,651	1,060
CURRENT ASSETS (Note 11)	**5,352**	**(2)**	**5,350**	**6,560**
Accruals	**67**	**0**	**67**	**72**
TOTAL ASSETS	**35,883**	**(123)**	**35,760**	**34,137**

Shareholders' equity and liabilities

(in EUR millions)	Dec. 31, 2022	Dec. 31, 2021
Capital stock	2,063	2,096
Additional paid-in capital	3,925	4,335
Revaluation reserve	45	45
Other reserves	3,125	3,129
Unappropriated retained earnings	7,169	6,546
Net income for the year	1,496	1,458
Untaxed provisions (Note 14)	3	3
SHAREHOLDERS' EQUITY (NOTE 12)	**17,826**	**17,612**
Other equity (Note 13)	170	170
Provisions (Note 14)	271	331
Bonds	9,932	9,686
Other debts	7,289	6,135
Other payables	262	192
Accruals	10	11
TOTAL LIABILITIES	**35,760**	**34,137**

NOTES TO THE 2022 ANNUAL FINANCIAL STATEMENTS

The financial statements cover the 12-month period from January 1 to December 31, 2022.

The following notes are an integral part of the annual financial statements.

These financial statements were adopted on February 23, 2023 by the Board of Directors.

NOTE 1 ACCOUNTING PRINCIPLES AND METHODS

The financial statements of Compagnie de Saint-Gobain have been drawn up in accordance with the French Chart of Accounts, French law, and accounting principles generally accepted in France.

The financial statements include the accounts of Compagnie de Saint-Gobain's German branch.

Intangible assets

Intangible assets are carried at acquisition cost (including incidental expenses) and are amortized over their estimated useful lives, ranging from three to ten years.

Property, plant and equipment

Property, plant and equipment are carried at acquisition cost (purchase price plus incidental expenses). They are depreciated over their estimated useful lives using the straight-line method. The most commonly used useful lives are as follows:

• Buildings	40 to 50 years	Straight-line
• Improvements and additions	12 years	Straight-line
• Fixtures and fittings	5 to 12 years	Straight-line
• Office furniture	10 years	Straight-line
• Office equipment	5 years	Straight-line
• Vehicles	4 years	Straight-line
• IT equipments	3 years	Straight-line

Financial investments

On initial recognition, investments in subsidiaries and affiliates are stated at cost including incidental expenses. Periodically, and particularly when an inventory is performed, the net carrying amount of the investments is compared with their fair value (value in use). Fair value is estimated based on various criteria: the Company's equity in the underlying net assets, proportion of consolidated net assets, net present value of future cash flows, excluding interest expense but after tax, based on business plans (or long-term budget projections), or a multiple of a normative performance basis.

When the fair value of the investments falls below their carrying amount, a provision is set aside for impairment. No unrealized capital gain is recorded if their fair value exceeds their carrying amount, and unrealized capital gains and losses are not offset.

Treasury shares

Treasury shares held by the Company for cancellation are recorded in the balance sheet under "Other investment securities". They are carried at acquisition cost and are not revalued or provisioned.

Treasury shares held by the Company for allocation upon exercise of stock options are recorded in the balance sheet under "Marketable securities".

Treasury shares held by the Company for allocation under performance share plans are also recorded in the balance sheet under "Marketable securities". These shares are valued in accordance with the first in/first out (FIFO) method, and are not revalued or provisioned.

Where appropriate, a provision for contingencies and charges is recognized in respect of these plans, corresponding to the outflow of resources expected by the Company. This is calculated based on the number of shares likely to be delivered to the beneficiaries and the acquisition cost of the shares at the date they are allocated to the plan or the likely cost of repurchasing the shares as measured at the reporting date. The provision is recognized on a pro rata basis over the vesting period.

Receivables

Receivables are stated at nominal value. A provision is set aside for impairment when their realizable value is less than their book value.

Marketable securities

Marketable securities mainly include units in money market funds (OPCVM and FCP) and are stated at the lower of acquisition cost and market value at year-end.

Foreign currency transactions

Income and expenses in foreign currencies are recorded at the euro exchange rate prevailing on the transaction date. Receivables, payables and bank balances in foreign currencies are translated at the year-end exchange rate, along with the related hedging instruments, and differences arising on translation are recorded under translation gains or losses. Provisions are booked for any exceptional unrealized translation losses that are not hedged.

Risk management/financial instruments

Liquidity risk is managed with the main objective of ensuring the timely rollover of the Group's financing at an optimal cost. Long-term debt therefore systematically represents a high proportion of overall debt. At the same time, the maturity schedules of long-term debt are set in such a way that replacement capital market issues are spread over time.

Currency, interest rate and commodity (energy and raw material price) risks arising from the Group's international operations are hedged by Compagnie de Saint-Gobain, mainly on behalf of subsidiaries. Currency risk is primarily hedged through forward purchase and sale contracts and currency options, while interest rate risk is hedged mainly through swaps and cross-currency swaps.

Compagnie de Saint-Gobain applies regulation no. 2015-05 of July 2, 2015 issued by the French accounting standards-setter (*Autorité des normes comptables* – ANC) on forward financial instruments and hedging operations.

Pension obligations

The Company's obligations under supplementary pension plans and retirement bonuses are measured by independent actuaries using the projected unit credit method (based on final salary and benefit obligations as determined at the measurement date). Pension obligations are included within provisions for contingencies and charges.

Actuarial gains and losses arising in the year under defined-benefit retirement plans are recognized immediately and in full in the income statement.

Since 2021, the provision for retirement bonuses has been calculated in accordance with the November 17, 2021 revision to Recommendation No. 2013-02 issued by the French accounting standards-setter (ANC) regarding the rules for measuring and recognizing pension and other benefit obligations.

Tax consolidation agreements

Compagnie de Saint-Gobain is the parent company of a tax consolidation group under the group relief regime provided for in Articles 223 A and seq. of the French Tax Code (*Code général des impôts*).

The tax consolidation agreements between Compagnie de Saint-Gobain and its subsidiaries provide for tax neutrality for consolidated subsidiaries. In their relationship with Compagnie de Saint-Gobain, the consolidating parent company, the subsidiaries discharge their taxes as if they had been taxed on a stand-alone basis. When loss-making companies leave the Group, they are not, in principle, entitled to any payments for losses transferred to the consolidating parent company during the consolidation period.

NOTE 2 OPERATING INCOME/(LOSS)

The operating loss improved by €20 million compared to 2021, due mainly to an increase in discount rates in 2022, which generated actuarial gains on pension obligations (decrease in obligations with a corresponding increase in operating income).

NOTE 3 NET FINANCIAL INCOME

Net financial income contracted by €23 million to €1,272 million in 2022 from €1,295 million in 2021.

This change is mainly attributable to the reduction in reversals of provisions for impairment of securities to €13 million in 2022 from €345 million in 2021, offset to a large extent by a €274 million increase in investment income.

Dividends received from subsidiaries rose by €210 million to €1,025 million in 2022, while 2022 profit transferred from subsidiaries of the German branch increased by €64 million.

NOTE 4 EXCEPTIONAL ITEMS

The Company recorded a net exceptional expense of €19 million in 2022 compared to a net exceptional expense of €68 million in 2021. The expense in 2022 mainly reflects provisions recorded at the level of the German branch, while in 2021 it was due to an increase in provisions for the Group's long-term compensation plans.

NOTE 5 INCOME TAXES

The Company recorded an income tax benefit of €253 million in 2022, comprising a €272 million income tax benefit under the tax consolidation regime in France and a €19 million income tax expense for the German entity.

The French tax group generated a tax profit in 2022. 50% of the 2022 tax profit is therefore charged against tax losses carried forward from prior years. At December 31, 2022, total cumulative tax loss carry-forwards represented €459 million.

Compagnie de Saint-Gobain's permanent German establishment is the head of the Group's *Organschaft* local tax consolidation regime.

At December 31, 2022, future tax savings corresponding to the branch's unused tax loss carry-forwards amounted to €15 million.

NOTE 6 INTANGIBLE ASSETS

	Intangible assets					Amortization				Net value
(in EUR millions)	Gross at Jan. 1, 2022	Additions	Disposals (retire-ments)	Transfer of intangible assets under construc-tion	Gross at Dec. 31, 2022	Accumu-lated at Jan. 1, 2022	Increases	Decreases	Accumu-lated at Dec. 31, 2022	At Dec. 31, 2022
Purchased goodwill	1				1	1			1	0
Other intangible assets	56	0	-2	1	55	50	1	0	51	4
Intangible assets in progress	0	1		-1	0	0			0	0
TOTAL	**57**	**1**	**-2**	**0**	**56**	**51**	**1**	**0**	**52**	**4**

NOTE 7 PROPERTY, PLANT AND EQUIPMENT

	Property, plant and equipment					Depreciation				
(in EUR millions)	Gross at Jan. 1, 2022	Additions	Disposals (retire-ments)	Transfer of intan-gible assets under cons-truction	Gross at Dec. 31, 2022	Accumu-lated at Jan. 1, 2022	Increases	Decreases	Accumu-lated at Dec. 31, 2022	Net value
Land	0	0			0	0			0	0
Buildings	1				1	1	0		1	0
Other	88	1	0	2	91	17	8	0	25	66
Assets under construction	0	2		-2	0	0			0	0
Prepayments	0				0	0			0	0
TOTAL	**89**	**3**	**0**	**0**	**92**	**18**	**8**	**0**	**26**	**66**

NOTE 8 FINANCIAL INVESTMENTS

	Financial investments			
(in EUR millions)	Gross at Jan. 1, 2022	Increases	Decreases	Gross at Dec. 31, 2022
Investments in subsidiaries and affiliates	13,893	243	0	14,136
Loans and advances to subsidiaries and affiliates	12,766	6,539	(4,423)	14,882
Other investment securities	0	750	(670)	80
Loans	824	1,204	(811)	1,217
Other financial investments	1	1	(1)	1
TOTAL	**27,484**	**8,737**	**(5,905)**	**30,316**

	Impairment			
(in EUR millions)	Gross at Jan. 1, 2022	Increases	Decreases	Gross at Dec. 31, 2022
Investments in subsidiaries and affiliates	56	0	(13)	43
Loans and advances to subsidiaries and affiliates	0	0	0	0
Other investment securities	0	0	0	0
Loans	0	0	0	0
Other financial investments	0	0	0	0
TOTAL	**56**	**0**	**(13)**	**43**

In 2022, changes in the gross value of investments in subsidiaries and affiliates mainly result from the €238 million capital increase at SG Europe du Nord and the €6 million capital increase at SG PAM.

Most loans and advances to subsidiaries and affiliates are due in more than one year.

Movements in other investment securities correspond mainly to treasury shares (see the section below).

In 2022, the change in provisions for impairment of investments is mainly due to a write-back of €13 million from the provision related to SG Innovative Materials Belgium.

Movements in treasury shares (outside the scope of the liquidity agreement)

(numbers)	Treasury shares allocated to stock option plans	Treasury shares allocated for cancelation	Total other financial assets	Treasury shares allocated to performance share plans	Treasury shares allocated to stock option plans	Total marketable securities	Total treasury shares
AT DECEMBER 31, 2020	**251,616**	**26,904**	**278,520**	**1,674,082**	**0**	**1,674,082**	**1,952,602**
Shares purchased in 2021	-	14,216,260	14,216,260	976,332	200,625	1,176,957	15,393,217
Shares canceled in 2021	-	(14,243,174)	(14,243,174)	-	-	0	(14,243,174)
Transfer of marketable securities in 2021	(251,616)	10	(251,606)	-	251,616	251,616	10
Deliveries	-	-	-	(904,712)	(136,972)	(1,041,684)	(1,041,684)
AT DECEMBER 31, 2021	**0**	**0**	**0**	**1,745,702**	**315,269**	**2,060,971**	**2,060,971**
Shares purchased in 2022	0	14,941,781	14,941,781	981,956	0	981,956	15,923,737
Shares canceled in 2022	0	(13,177,086)	(13,177,086)	0	0	0	(13,177,086)
Other movements	0	0	0	978	0	978	978
Deliveries	0	0	0	(1,076,098)	(16,501)	(1,092,599)	(1,092,599)
AT DECEMBER 31, 2022	**0**	**1,764,695**	**1,764,695**	**1,652,538**	**298,768**	**1,951,306**	**3,716,001**

Gross value *(in EUR millions)*	Treasury shares allocated to stock option plans	Treasury shares allocated for cancelation	Total other financial assets	Treasury shares allocated to performance share plans	Treasury shares allocated to stock option plans	Total marketable securities	Total treasury shares
AT DECEMBER 31, 2020	**10**	**1**	**11**	**57**	**-**	**57**	**68**
Shares purchased in 2021	-	793	793	60	11	71	864
Shares canceled in 2021	-	(794)	(794)	-	-	0	(794)
Transfer of marketable securities in 2021	(10)	0	(10)	0	10	10	0
Deliveries	0	-	-	(33)	(6)	(39)	(39)
AT DECEMBER 31, 2021	**0**	**0**	**0**	**84**	**15**	**99**	**99**
Shares purchased in 2022	0	750	750	50	0	50	800
Shares canceled in 2022	0	(670)	(670)	0	0	0	(670)
Other movements	0	0	0	0	0	0	0
Deliveries	0	0	0	(49)	(1)	(50)	(50)
AT DECEMBER 31, 2022	**0**	**80**	**80**	**85**	**14**	**99**	**179**

In all, 8,871,654 shares were canceled on June 10, 2022 and 4,305,32 shares were canceled on October 4, 2022, representing a total of 13,177,086 shares canceled.

In 2022, 1,076,098 treasury shares were remitted under existing performance share plans (of which 1,074,659 in November under the 2018 performance share plan), versus 904,712 shares in 2021, and 16,501 treasury shares were remitted under existing stock option plans versus 136,972 shares in 2021.

At December 31, 2022, 3,716,001 treasury shares were held, of which:

- 298,768 treasury shares to cover stock option plans;
- 1,652,538 treasury shares to cover employee share plans;
- 1,764,695 treasury shares to be canceled.

NOTE 9 INVESTMENT PORTFOLIO

	Country	Net book value *(in EUR millions)*	% interest	Number of shares
Société de Participations Financières et Industrielles - SPAFI	France	6,660	100.00%	251,014,618
Partidis	France	2,266	100.00%	58,597,751
Saint-Gobain Europe du Nord	France	3,462	100.00%	208,429,614
Saint-Gobain Benelux	Belgium	400	100.00%	3,296,475
Saint-Gobain Do Brasil	Brazil	259	55.31%	93,891,494
Saint-Gobain Cristaleria	Spain	211	16.36%	3,660,677
Saint-Gobain Isover G+H AG	Germany	155	100.00%	3,200,000
Saint-Gobain PPL Isofluor GmbH	Germany	154	100.00%	23,008,200
Saint-Gobain Innovative Materials	Belgium	150	15.00%	1,667,698
Saint-Gobain Glass Deutschland GmbH	Germany	86	60.00%	119,999,970
Saint-Gobain Beteiligungen GmbH	Germany	76	100.00%	15,358,100
Saint-Gobain Autoglas GmbH	Germany	73	60.00%	120,000,000
Saint-Gobain Diamant Werkzeuge GmbH	Germany	61	100.00%	20,000,000
Société Europeenne des Produits Refractaires - SEPR	France	53	25.73%	407,600
Saint-Gobain PAM	France	21	8.10%	927,255
Unterstützungskasse GmbH	Germany	0	95.00%	28,500
Saint-Gobain Immobilien GmbH	Germany	0	100.00%	25,000
SCI Île-de-France	France	3	94.00%	22,560
INVESTMENTS IN SUBSIDIARIES AND AFFILIATES		**14,093**		
Compagnie de Saint-Gobain (treasury stock held for cancellation)		80	0.03%	0
OTHER INVESTMENT SECURITIES		**80**		
TOTAL		**14,173**		

NOTE 10 INFORMATION ABOUT SUBSIDIARIES AND AFFILIATES

Information on direct holdings of Compagnie de Saint-Gobain whose book value exceeds 1% of capital:

COMPANY *(in EUR millions)*	Capital stock	Reserves	% interest	Book value of shares held Gross	Book value of shares held Net	Loans and advances granted by the Company	Guarantees given by the Company	2022 sales	2022 net income/ (loss)	Dividends received by the Company in 2022
1 – SUBSIDIARIES										
At least 50%-owned										
by the Company										
SPAFI										
12, place de l'Iris										
92400 Courbevoie	3,012	5,322	100.00	6,660	6,660	2,602	0	0	413	760
Partidis										
12, place de l'Iris										
92400 Courbevoie	259	111	100.00	2,266	2,266	845	0	482	457	0
S-G Europe du Nord										
12, place de l'Iris										
92400 Courbevoie	886	1,727	100.00	3,462	3,462	3,081	0	20	97	201
S. G. Benelux										
6, Avenue Einstein,										
1300 Wavre, Belgium	400	12	100.00	400	400	0	0	0	4	4
S. G. Isover G+H AG										
1 Burgermeister-Grünzweig Strasse										
D-67059 Ludwigshafen	82	11	100.00	155	155	0	0	538	61	61
S. G. PPL Isofluor GmbH										
Ziegeleistrasse 2 / Kreitzweg										
D-41472, Neuss	23	133	100.00	154	154	0	0	14	94	94
S. G. Glass Deutschland GmbH										
Nikolausstrasse 1										
D-52222, Stolberg	102	32	60.00	87	86	0	0	478	27	27
S G Do Brasil										
482, avenida Santa Marina – Agua Branca										
05036-903 São Paulo-SP, Brésil	301	260	55.31	259	259	0	0	1,101	112	53
Saint-Gobain Autoglas GmbH										
Glasstrasse 1										
D-52134, Herzogenrath	102	20	60.00	73	73	0	0	117	(15)	(15)
Saint-Gobain Diamant Werkzeuge GmbH										
Schuetzenwall 13-17										
D-22844, Norderstedt	10	51	100.00	61	61	0	0	38	5	5
Saint-Gobain Beteiligungen GmbH										
Krefelder Straße 195										
D-52070, Aachen	0	0	100.00	76	76	0	0	0	0	0

COMPANY *(in EUR millions)*	Capital stock	Reserves	% interest	Book value of shares held Gross	Book value of shares held Net	Loans and advances granted by the Company	Guarantees given by the Company	2022 sales	2022 net income/ (loss)	Dividends received by the Company in 2022
2 – AFFILIATES										
10%- to 50%-owned										
by the Company										
S. G. Cristaleria										
132, Principe de Vergara										
28002 Madrid, Espagne	135	643	16.36	211	211	620	0	342	141	4
S. G. Innovative Materials										
6, Avenue Einstein,										
1300 Wavre, Belgium	391	(245)	15.00	161	150	0	0	185	11	0
SEPR										
12, place de l'Iris										
92400 Courbevoie	63	7	25.73	53	53	0	0	227	96	3
OTHER										
Subsidiaries over 50% - owned										
Total french companies				3	3					
Total foreign companies										
Affiliates (10% - to 50%-owned)										
Total French companies										
Total foreign companies										
Other investments				53	22					
Treasury stock held for cancellation				80	80					
TOTAL				**14,216**	**14,173**	**7,148**	**0**	**3,542**	**1,503**	**1,197**

The amounts shown for subsidiaries of the German branch corresponds to the 2022 profit or loss transferred under the tax consolidation system.

NOTE 11 CURRENT ASSETS

Other receivables

This item includes receivables and loans granted by the Company with a maturity of less than one year. Other receivables totaled €884 million at December 31, 2022 and €752 million at December 31, 2021. At December 31, 2022, other receivables mainly comprise €710 million in current account advances to subsidiaries (€584 million at end-2021), €97 million in accounts receivable – Group (€50 million at end-2021), €3 million in mark-to-market adjustments on swap and option contracts (€16 million at end-2021) and €23 million in tax receivables (€42 million at end-2021).

Maturities of receivables reported under "Current assets"

(in EUR millions)	Gross	Due Within 1 year	Due Beyond 1 year
Other receivables	884	884	0
Prepayments	31	9	22
Deferred charges	36	10	26
TOTAL PREPAYMENTS AND DEFERRED CHARGES	**67**	**19**	**48**
Provision for doubtful receivables	0	0	0

Marketable securities

Marketable securities represent €2,815 million at December 31, 2022 (€4,748 million at December 31, 2021).

They consist mainly of €2,711 million worth of units in money market funds (OPCVM and FCP), representing the investment of funds held by the cash pool managed by the Company on behalf of the Group to yield a return on temporary cash surpluses.

Marketable securities also include 1,951,306 treasury shares held to cover employee stock option and performance share plans (see Note 8).

Lastly, marketable securities include securities held within the scope of a liquidity agreement that complies with the Code of Ethics adopted by the French financial markets association (AMAFI) and with AMF decision no. 2018-01 of July 2, 2018.

Under this liquidity agreement, at December 31, 2022 the Company held:

- €4.2 million worth of units in a euro-denominated money-market fund (FCP);
- 29,750 treasury shares.

In 2022, 2,086,990 shares were purchased under this agreement (2021: 1,471,779 shares) and 2,081,717 shares were sold (2020: 1,483,669 shares).

Deferred charges

Deferred charges mainly correspond to bond issuance costs for €34 million (€31 million at December 31, 2021).

In 2022, new debt issuance costs recorded under "Deferred charges" totaled €12 million (2021: €0.5 million) and amortization for the year amounted to €10.4 million (2021: €10.7 million). The corresponding refinancing transactions are presented in Note 15.

NOTE 12 SHAREHOLDERS' EQUITY

12.1 Changes in shareholders' equity

	Date	Number of shares *(number)*	Capital stock *(in EUR millions)*	Additional paid-in capital, reserves and other *(in EUR millions)*	Unappropriated retained earnings *(in EUR millions)*	Net income *(in EUR millions)*	Total equity *(in EUR millions)*
SHAREHOLDERS' EQUITY AT DECEMBER 31, 2021		**524,017,595**	**2,096**	**7,512**	**6,546**	**1,458**	**17,612**
Appropriation of 2021 net income		0	0	0	1,458	(1,458)	0
Dividend		0	0	0	(835)	0	(835)
Shares issued under the Group Savings Plan	05/11/2022	4,916,097	20	202	0	0	222
Shares canceled	06/10/2022	(8,871,654)	(35)	(439)	0	0	(474)
Shares canceled	10/4/2022	(4,305,432)	(18)	(177)	0	0	(195)
Shares issued upon exercise of stock options	12/31/2022	12,476	0	0	0	0	0
Net income for 2022		0	0	0	0	1,496	1,496
SHAREHOLDERS' EQUITY AT DECEMBER 31, 2022		**515,769,082**	**2,063**	**7,098**	**7,169**	**1,496**	**17,826**

At December 31, 2022, capital stock amounted to €2,063 million, comprising 515,769,082 shares of common stock with a par value of €4 each.

The principal events that contributed to changes in capital stock and shareholders' equity were as follows:

- the May 2022 increase in capital stock through the subscription of 4,916,097 shares under the Group Savings Plan at a price of €45.19 for a gross and net amount of €222 million;
- the capital reductions of June 10, 2022 and October 4, 2022 through the cancelation of 8,871,654 and 4,305,432 shares, respectively, for a total gross and net amount of €670 million.

12.2 Stock option plans

Until 2018, Compagnie de Saint-Gobain operated stock option plans for certain employees.

Under these plans, the Board of Directors granted options allowing beneficiaries to obtain Saint-Gobain shares at a price set, at no discount, by reference to the average of the opening prices for the Saint-Gobain share over the 20 stock market trading days preceding the date of the decision by the Board of Directors.

For all of the plans, beneficiaries must wait at least four years from the grant date to exercise any options. None of the options received may be exercised until this four-year period has lapsed. Options must be exercised within 10 years of the grant date. Except in specified circumstances, grantees forfeit these options if they leave the Group.

Among the plans outstanding at December 31, 2022, the 2013, 2015, 2016 and 2017 plans offer purchase options, while the 2018 plan offers subscription options.

Since 2009, a performance condition has applied for all grantees in plans.

No new stock option plans have been launched since 2019.

The following table presents changes in the number of outstanding options:

Stock purchase and subscription option plans

	€4 par value exercise shares	Average exercise *(in EUR)*
OPTIONS OUTSTANDING AT DECEMBER 31, 2020	**844,524**	**40.04**
Options granted	0	0.00
Options exercised	(151,713)	38.59
Options forfeited	(141,862)	49.38
OPTIONS OUTSTANDING AT DECEMBER 31, 2021	**551,489**	**38.03**
Options granted	0	0.00
Options exercised	(28,977)	40.97
Options forfeited*	(36,691)	31.71
OPTIONS OUTSTANDING AT DECEMBER 31, 2022	**485,821**	**38.32**

* *Including 15,411 options granted under the 2018 stock option plan that lapsed because the performance conditions were not met and 17,000 that lapsed after they had been withdrawn, as well as 4,280 options that lapsed after the exercise period under the 2012 stock option plan expired.*

The table below summarizes information about stock options outstanding at December 31, 2022, after taking into account partial fulfillment of the performance criteria attached to certain plans:

	Exercisable options			Non-exercisable options		Total outstanding options	
Grant date	**Exercise price** *(in EUR)*	**Number of options**	**Weighted ave. residual life** *(in months)*	**Exercise price** *(in EUR)*	**Number of options**	**Number of options**	**Type of option**
2013	38.80	36,707	11	0	0	36,707	Purchase
2014	34.13	0	23	0	0	0	Purchase
2015	39.47	36,739	35	0	0	36,739	Purchase
2016	40.43	43,897	47	0	0	43,897	Purchase
2017	49.38	121,713	59	0	0	121,713	Purchase
2018	32.24	246,765	71	0	0	246,765	Subscription
TOTAL		**485,821**			**0**	**485,821**	

At December 31, 2022, 485,821 options were exercisable at an average exercise price of €38.32.

12.3 Performance share plans

Various performance share plans have been set up by Saint-Gobain since 2009. These plans concern both managerial-grade employees and senior managers of the Group both within and outside France.

At December 31, 2022, there were four outstanding performance share plans, approved by the Board of Directors in 2019, 2020 and 2021 and on November 24, 2022.

All plans are subject to service and performance conditions. The vesting period for the plans is four years and the shares will be delivered on the fourth day after the end of the vesting period.

The table below shows changes in the number of performance share rights:

Performance share plans (movements)

	Number of rights
NUMBER OF PERFORMANCE SHARE RIGHTS (NOT YET VESTED) AT DECEMBER 31, 2020	**4,965,834**
performance share rights granted in November 2021	1,184,475
shares issued/delivered	(904,712)
lapsed and canceled rights	(324,838)
NUMBER OF PERFORMANCE SHARE RIGHTS (NOT YET VESTED) AT DECEMBER 31, 2021	**4,920,759**
performance share rights granted in November 2022	1,232,792
shares issued/delivered	(1,076,098)
lapsed and canceled rights*	(141,921)
NUMBER OF PERFORMANCE SHARE RIGHTS (NOT YET VESTED) AT DECEMBER 31, 2022	**4,935,532**

* *Including 53,310 rights that lapsed because the performance condition had only been partly met, 86,961 rights that lapsed after they had been withdrawn, and 1,650 that were canceled in accordance with plan regulations.*

The following table shows the expected dates when shares under the four performance share plans outstanding at December 31, 2022 will be delivered (except in the case of early release following the grantee's death or disability, along with the service and performance conditions remaining to be fulfilled):

Performance share plans

Information on the number of performance share rights (not yet vested) at December 31, 2022

Grant date	Number of rights granted at inception of Plan	Deliveries	Outstanding rights at Dec. 31, 2022*	11/24/2023	11/29/2024	11/28/2025	11/27/2026	Type of shares
11/21/2019	1,251,770	850	1,250,920	1,250,920				existing
11/26/2020	1,268,295	750	1,267,545		1,267,545			existing
11/25/2021	1,184,475	200	1,184,275			1,184,275		existing
11/24/2022	1,232,792	0	1,232,792				1,232,792	existing
TOTAL	**4,937,332**	**1,800**	**4,935,532**	**1,250,920**	**1,267,545**	**1,184,275**	**1,232,792**	

* *Subject to fulfillment of the service and performance conditions applicable to each plan.*

12.4 Performance unit plans

Performance unit plans subject to service and performance conditions were set up every year between 2012 and 2015 for certain management-grade employees and senior managers of the Group in France. These plans do not give rise to the delivery of shares, but entitle grantees to receive cash compensation deferred over the long term (exercise period between four and ten years after the grant date), the amount of which will be determined by reference to Saint-Gobain's share price.

No long-term compensation plan in the form of performance units has been set up since 2016, as all beneficiaries received rights to performance shares (see above).

As of 2019, there are no more unvested performance unit plans.

12.5 Compagnie de Saint-Gobain Group Savings Plan (PEG)

The Group Savings Plan (*Plan d'Épargne Groupe* – PEG) is an employee stock purchase plan open to all Group employees in France and most other countries where the Group is present. Eligible employees must have completed a minimum of three months' service with the Group. Eligible employees are able to invest in Saint-Gobain shares at a preferential subscription price. These shares are held either directly or through the employee saving plan's mutual funds, depending on local legislation, and are subject to a mandatory five- or ten-year lock-up, except following the occurrence of certain events. The Board of Directors delegates authorization for setting the subscription price to the Chief Executive Officer of Compagnie de Saint-Gobain. It corresponds to the average of the opening prices for the Saint-Gobain share on Euronext Paris over the 20 trading days preceding the date of the decision, subject to a 20% discount, in accordance with applicable laws, the Shareholders' Meeting resolutions and the deliberations of the Board of Directors.

In 2022, 4,916,097 new shares with a par value of €4 were issued to employees under the PEG at an average subscription price of €45.19 (5,562,855 shares at an average price of €35.81 in 2021), representing a share capital increase of €222 million (€199 million in 2021).

12.6 Potential number of shares

At the Shareholders' Meeting of June 2, 2022, shareholders authorized the Board of Directors of Compagnie de Saint-Gobain to:

- grant stock purchase or subscription options exercisable for new or existing shares, subject in particular to performance conditions, representing up to 1.5% of capital stock on the date of the Shareholders' Meeting, with a sub-limit of 10% of this limit for corporate officers of Compagnie de Saint-Gobain, i.e., 7,934,005 options, including a maximum of 793,401 options for corporate officers (17th Resolution/38-month authorization commencing June 2, 2022). It should be noted that this limit of 1.5% of the capital stock will be set off against the threshold set in the 18th Resolution for the performance share grants mentioned below, and that this 1.5% limit represents the aggregate limit for shares resulting from the exercise of options granted under and within the limit of the 17th Resolution and shares granted under and within the limit of the 18th Resolution;
- grant free existing shares, subject in particular to performance conditions, representing up to 1.2% of the capital stock on the date of the Shareholders' Meeting, with a sub-limit of 10% of this limit for corporate officers of Compagnie de Saint-Gobain, i.e., 6,347,204 free shares, including a maximum of 634,720 free shares for corporate officers (18th Resolution/38-month authorization commencing June 2, 2022). The limit of 1.2% and sub-limit of 10% are being set off against the limits specified under the 17th Resolution of the Shareholders' Meeting referred to above regarding stock options. The Board of Directors made partial use of this authorization by granting 1,232,792 performance shares (including 75,000 for corporate officers) on November 24, 2022 (see section 12.3).

At the Shareholders' Meeting of June 3, 2021, shareholders authorized the Board of Directors of Compagnie de Saint-Gobain to:

- issue, on one or several occasions, up to 106,500,000 new shares or securities giving access to the share capital of the Company or its subsidiaries, with preferential subscription rights, or without preferential subscription rights but with a priority period for existing shareholders, by public offering, or without preferential subscription rights by private placement, or to issue new shares through the capitalization of share premiums, reserves, profits or other amounts, or without preferential subscription rights in consideration of contributions in kind (18th to 23th Resolutions/26-month authorization commencing June 3, 2021);
- issue, on one or several occasions, up to 13,000,000 new shares to members of the Group Savings Plan (25th Resolution/26-month authorization commencing June 3, 2021).

If all outstanding stock options whose type has not yet been decided by the Board of Directors were to be exercised via the issue of new shares, this would potentially have the effect of increasing the number of shares outstanding to 516,015,847 shares. In addition, if the authorizations described above were to be used in full by the Board of Directors, this would potentially have the effect of increasing the number of shares outstanding to 637,300,963 shares.

NOTE 13 OTHER EQUITY

Non-voting participating securities

In June 1983, Compagnie de Saint-Gobain issued 1,288,299 non-voting participating securities with a face value of FRF 1,000. Their face value is now €152.45, following their translation into euros in 1999.

A certain number of these participating securities have been bought back over the years. At December 31, 2022, 606,883 securities are still outstanding with an aggregate face value of €92.5 million.

Interest on the securities ranges from 75% to 125% of the average corporate bond yield (TMO), based on the Group's consolidated income. The amount paid out per security in 2022 was €0.45.

In April 1984, 194,633 non-voting participating securities were issued by Compagnie de Saint-Gobain with a face value of ECU 1,000 (€1,000 today).

A certain number of these participating securities has been bought back over the years. At December 31, 2022, 77,516 securities are still outstanding, with an aggregate face value of €77.5 million.

Interest comprises (i) a fixed portion of 7.5% paid per year applicable to 60% of the nominal amount of the security, and (ii) a variable portion applicable to the remaining 40% of the nominal amount of the security, which is linked to consolidated net income of the previous year and to the reference six-month Euribor rate +7/8%. The amount paid per security in 2022 was €61.70, settled in two installments (€27.95 and €33.75).

These participating securities are not redeemable and the interest paid on them is classified as a component of finance costs.

NOTE 14 PROVISIONS

(in EUR millions)	At Jan. 1, 2022	Charge for the year	Write-backs of utilized provisions	Write-backs of surplus provisions	Other (transfer, method change)	At Dec. 31, 2022
Untaxed provisions						
Reinvested capital gains	3	0	0	0	0	3
Other	0	0	0	0	0	0
	3	**0**	**0**	**0**	**0**	**3**
Provisions for contingencies						
Provisions for taxes	8	9	0	0	0	17
Other risks	2	0	1	0	0	1
	10	**9**	**1**	**0**	**0**	**18**
Provisions for charges						
Pensions [1]	105	11	49	0	0	67
Retirement bonuses	9	1	1	0	0	9
Provisions for performance share and performance unit plan costs	189	117	140	0	0	166
Provisions for other charges	18	0	7	0	0	11
	321	**129**	**197**	**0**	**0**	**253**
Provisions for impairment						
Investments in subsidiaries and affiliates	56	0	13	0	0	43
Other investment securities	0	0	0	0	0	0
Doubtful receivables	0	0	0	0	0	0
Marketable securities	0	0	0	0	0	0
	56	**0**	**13**	**0**	**0**	**43**

(1) *The discount rate used in 2022 to calculate benefit obligations was 4.16% for terms of 15 years or less (1.06% in 2021), and 4.23% for terms over 15 years (1.42% in 2021).*

NOTE 15 DEBT AND PAYABLES

The net €1,469 million increase in total debt and payables (€17,493 million) was mainly attributable to the net increase in other debts.

Analysis of debt and payables

Maturities of debt and payables

		Due	
(in EUR millions)	Gross	Within 1 year	Beyond 1 year
Bonds (1)	9,932	1,701	8,231
Bank borrowings (1) (2)	8	8	0
Other borrowings (3)	7,281	6,565	716
DEBT	**17,221**	**8,274**	**8,947**
Tax and social charges payable	80	80	0
Other payables (3)	182	141	41
Deferred income	10	1	9
TOTAL DEBT AND PAYABLES (4)	**17,493**	**8,496**	**8,997**
(1) New borrowings and debt for the year – non-Group	0		
Borrowings and debt repaid during the year – non-Group	1,217		
(2) Of which:	0		
■ debt with original maturity of up to two years	8		
■ debt with original maturity of more than two years	0		
(3) Of which:	0		
■ shareholder loans	None		
■ new loans from subsidiaries*	4,075		
■ loans from subsidiaries repaid during the year	(2,800)		
(4) Debt due beyond five years	0		

* *Including the net change in current accounts with Group entities.*

Long- and short-term debt

(in EUR millions)	2022	2021
1. MEDIUM- AND LONG-TERM DEBT		
LONG-TERM PORTION		
Due between January 1 and December 31		
2023	1,612	1,612
2024	976	1,202
2025	1,250	750
2026	750	750
2027 and beyond	5,222	4,238
No fixed maturity	33	33
Total long- and medium-term debt excluding short-term portion	**9,843**	**8,585**
Short-term portion	**89**	**1,102**
TOTAL	**9,932**	**9,686**
2. SHORT-TERM DEBT		
Borrowings from Group entities	6,552	6,113
Bank overdrafts and other short-term borrowings	15	19
Other	6	3
TOTAL	**6,573**	**6,135**
TOTAL LONG- AND SHORT-TERM DEBT	**16,505**	**15,822**

Long-term debt can be analyzed as follows by currency:

(in EUR millions)	2022	2021
Euros	9,515	9,026
Pound sterling	417	660
TOTAL	**9,932**	**9,686**

The amortization of expenses incurred to set up borrowings is recognized on a pro rata basis over the term of the borrowings in question. These expenses are shown on the "Deferred charges" line of the balance sheet (see Note 11 "Deferred charges").

15.1 Perpetual bonds

In 1985, Compagnie de Saint-Gobain issued 25,000 perpetual bonds with a face value of ECU 5,000 (€5,000 today).

A total of 18,496 perpetual bonds have since been bought back and canceled, and 6,504 perpetual bonds are outstanding at December 31, 2022, representing a total face value of €33 million.

The bonds bear interest at a variable rate (average of interbank rates offered by the four reference banks for six-month euro deposits). The amount paid out per bond in 2022 was €0.

The bonds are not redeemable and interest on the bonds is classified as a component of finance costs.

15.2 Main changes in bond debt

Compagnie de Saint-Gobain also redeemed the following instruments at maturity:

- €900 million worth of 3.625% bonds on March 28, 2022;
- €100 million worth of 3.6% bonds on October 10, 2022.

On May 18, 2022, Compagnie de Saint-Gobain partially redeemed a bond for a face value of GBP 183.6 million. The amount outstanding under this bond, originally issued for GBP 300 million, represents GBP 116.4 million maturing on November 15, 2024 with a coupon of 5.625%. The difference between the redemption value and the face value of the bonds redeemed (GBP 16.1 million) was recorded in other financial expense.

On August 10, 2022, Compagnie de Saint-Gobain issued a €1.5 billion bond divided into three tranches:

- a €500 million tranche maturing August 10, 2025 and paying a coupon of 1.625%;
- a €500 million tranche maturing June 10, 2028 and paying a coupon of 2.125%;
- a €500 million tranche maturing August 10, 2032 and paying a coupon of 2.625%.

The ten-year tranche is a Sustainability-Linked Bond (SLB) linked to two important indicators of Saint-Gobain's sustainability roadmap, with ambitious 2030 targets in relation to the 2017 base year:

- reduce by 33% the absolute scope 1 and 2 CO_2 emissions;
- achieve an 80% reduction in non-recovered production waste.

A 0.375% step-up would apply on the 2032 coupon for each of these indicators if their respective target was not met.

15.3 Financing programs

The Group has a number of medium- and long-term financing programs (Medium-Term Notes) and short-term financing programs (Commercial Paper).

The state of these programs is as follows:

(in EUR millions)	Authorized drawings	Authorized limits at Dec. 31, 2022	Balance outstanding at Dec. 31, 2022	Balance outstanding at Dec. 31, 2021
Medium Term Notes	any duration	15,000	9,879	9,649
NEU CP	up to 12 months	4,000	0	0
US Commercial Paper	up to 12 months	938 *	0	0
Euro Commercial Paper	up to 12 months	938 *	0	0

* *Equivalent to USD 1,000 million based on the exchange rate at December 31, 2022.*

In accordance with market practices, Negotiable European Commercial Paper (NEU CP), US Commercial Paper and Euro Commercial Paper are generally issued with maturities of one to six months. They are treated as variable-rate debt since they are rolled over at frequent intervals.

Syndicated lines of credit

Compagnie de Saint-Gobain has two syndicated lines of credit that are intended to provide a secure source of financing for the Group (including as additional backing for its NEU CP, US Commercial Paper and Euro Commercial Paper programs):

- a €2.5 billion syndicated line of credit, maturing in December 2024 after the exercise of the two one-year rollover options;
- a second €1.5 billion syndicated line of credit, also maturing in December 2024 after the exercise of the two one-year rollover options.

Based on the Group's current credit rating for long-term debt issues, the two facilities are not subject to any covenants. Neither of these two lines of credit had been drawn down at December 31, 2022.

NOTE 16 RELATED-PARTY TRANSACTIONS

16.1 Transactions with related companies

(in EUR millions)	Net amount concerning related companies: Subsidiaries [(1)]	Net amount concerning related companies: Other related companies [(2)]	Other companies	Net balance sheet amount at Dec. 31, 2022
BALANCE SHEET ITEMS				
Investments in subsidiaries and affiliates	14,093	0	0	14,093
Loans and advances to subsidiaries and affiliates	14,882	0	0	14,882
Other investment securities	0	0	80	80
Loans and other financial investments	1,196	0	22	1,218
Other receivables	808	0	74	884
Marketable securities	0	0	2,815	2,815
Cash and cash equivalents	0	0	1,651	1,651
Bonds	0	0	(9,932)	(9,932)
Bank borrowings	0	0	(8)	(8)
Other borrowings	(7,284)	3	0	(7,281)
Tax and social charges payable	0	0	(80)	(80)
Other payables	(30)	0	(152)	(182)
INCOME STATEMENT ITEMS				
Income from investments in subsidiaries and affiliates	(1,201)	0	0	(1,201)
Income from loans and other investments	(315)	0	0	(315)
Other interest income	0	0	(7)	(7)
Interest expense	48	0	215	263

(1) *Fully consolidated companies.*
(2) *Companies that are not fully consolidated.*

16.2 Transactions with other related parties

There are no material transactions with other related parties that were not entered into under arm's-length conditions.

NOTE 17 OFF-BALANCE SHEET COMMITMENTS

Off-balance sheet commitments given on behalf of consolidated companies

Off-balance sheet commitments given on behalf of consolidated companies	Date	Counterparty	2022 amount (in EUR millions)	2021 amount (in EUR millions)
Guarantee for Saint-Gobain tower lease	09/01/2032	SCI Iris La Défense	6	6
Guarantee given on behalf of Saint-Gobain Isover (electricity purchases)	12/31/2025	Exeltium	9	12
Commitments given to other members of economic interest groupings (GIE)	indefinite	GIE counterparts	0	9
Commitment given to the Saint-Gobain Initiatives foundation	multiple	SG Initiatives counterparts	6	0
Commitment given to employees of the German companies in the Group (early retirement plan)	12/31/2025	Sparkasse Aachen	2	2

Financing-related off-balance sheet commitments

Financing-related off-balance sheet commitments given	Date	Counterparty	2022 amount (in EUR millions)	2021 amount (in EUR millions)
Liquidity agreement guarantee	jan-23	Exane	1	1
Euro equivalent of forward currency sale contracts	multiple	multiple	1,543	1,844
Euro equivalent of foreign currencies payable under currency swaps	multiple	multiple	2,724	3,214
Equity swaps acquired as hedges of performance units	multiple	multiple	0	0

Financing-related off-balance sheet commitments received	Date	Counterparty	2022 amount (in EUR millions)	2021 amount (in EUR millions)
Liquidity agreement guarantee	jan-23	Exane	1	1
Euro equivalent of forward currency sale contracts	multiple	multiple	1,543	1,844
Euro equivalent of foreign currencies payable under currency swaps	multiple	multiple	2,759	3,240
2013/2023 undrawn line of credit	12/20/2023	multiples	2,480	2,480
2017/2023 undrawn line of credit	12/20/2023	multiples	1,520	1,520
Equity swaps acquired as hedges of performance units	multiple	multiple	0	12

Financing-related off-balance sheet commitments given and received	Date	Counterparty	2022 amount (in EUR millions)	2021 amount (in EUR millions)
Interest-rate swaps: fixed-rate borrower/fixed-rate lender	multiple	multiple	282	298
Interest-rate swaps: variable-rate borrower/fixed-rate lender	multiple	multiple	175	175
Commodity swaps: fixed-price buyer/variable-price seller	multiple	multiple	6	4
Commodity swaps: variable-price buyer/fixed-price seller	multiple	multiple	6	4

Operations-related off-balance sheet commitments

None.

Other off-balance sheet commitments

In some cases Compagnie de Saint-Gobain, or other Group companies, may grant seller's warranties to the buyers of divested businesses. A provision is recognized whenever a risk is identified and the related cost can be estimated reliably.

NOTE 18 INFORMATION ON FEES PAID TO THE STATUTORY AUDITORS

Total fees (excluding VAT) paid and payable to the Statutory Auditors in 2022, as reflected in the income statement for the year, may be broken down as follows:

- statutory audit fees: €1.7 million in 2022;
- fees for non-audit services: €0.3 million in 2022.

Non-audit services provided by the Statutory Auditors to Compagnie de Saint-Gobain relate mainly to audit procedures carried out as an independent third party on the management report on CSR information, due diligence in the context of planned acquisitions or divestments, and procedures related to the issuance of comfort letters in the case of new bond issues.

NOTE 19 EMPLOYEES

Monthly average number of employees

Paris HQ (Tour Saint-Gobain, La Défense)	2022	2021
Managerial-grade employees	174	167
Supervisors	13	15
Administrative staff	4	3
TOTAL	**191**	**185**
of which employees on fixed-term contracts	7	3

German branch (Aix la Chapelle)	2022	2021
Managerial-grade employees	88	82
Supervisors	105	106
Administrative staff	0	0
TOTAL	**193**	**188**
of which employees on fixed-term contracts	13	9

Management compensation

Total gross compensation and benefits paid in 2022 by the French and foreign companies in the Group to members of the Executive Committee as it stood at December 31, 2022 (excluding any long-term compensation) amounted to €15.3 million (2021: €14.2 million), including €5.7 million in gross variable compensation (2021: €5.5 million).

Provisions for pensions and other post-employment benefit obligations (defined-benefit obligations [DBO] in respect of length-of-service awards and pensions) accruing to members of the Group's management bodies totaled €29.2 million (2021: €31.0 million).

Compensation paid to members of the Board of Directors for 2022 totaled €1.1 million (2021: €1.1 million).

NOTE 20 LITIGATION

The lawsuits described below involves Group subsidiaries and the related costs and provisions are recorded in the accounts of the subsidiaries concerned.

20.1 Competition law and related proceedings

Investigation by the Swiss Competition Commission in the sanitary products wholesale industry

In November 2011, the Swiss Competition Commission (Commission suisse de la concurrence) opened an investigation into anti-competitive practices in the sanitary products wholesale industry. In May 2014, the Commission Secretariat issued a notice of complaints against Sanitas Troesch and other wholesalers in the industry alleging that Sanitas Troesch and some of its competitors had, among other things, agreed in 2005 and 2012 to lower gross prices.

The total fine imposed on all companies involved is CHF 80 million. For Sanitas Troesch, the fine is CHF 28.8 million. Sanitas Troesch appealed this decision on May 2, 2016 and continues to firmly refute the claims made. The hearing took place before the Federal Administrative Court on January 21, 2020 and the date on which the Federal Administrative Court will issue its decision is not yet known. However, a provision for claims and litigation was recognized at December 31, 2015 in an amount equivalent to the fine (unchanged as at December 31, 2022).

Investigation by the French Competition Authority in the building insulation products industry

Alleged anti-competitive practices in the building insulation products market were notified to Saint-Gobain Isover and Compagnie de Saint-Gobain, which rejected such allegations. The French Competition Authority considered that the alleged anti-competitive practices were not established and dismissed all the objections in January 2021. Actis appealed this decision to the Paris Court of Appeal.

On the civil law front, Actis served in March 2013 a damages claim on Saint-Gobain Isover, the Centre scientifique et technique du bâtiment, and the FILMM before the Paris Civil Court (Tribunal judiciaire de Paris) based on the facts being investigated by the Competition Authority.

At the end of 2022, Actis withdrew these two actions. Saint-Gobain Isover and Compagnie de Saint-Gobain accepted these withdrawals without reservation. The decision of the Paris Court of Appeal noting the withdrawal of Actis and the fact that the actions were removed from the Court was made on January 26, 2023. The judgment of the Paris Civil Court declaring the withdrawal of Actis and the removal of the case is expected in the first half of 2023.

20.2 Asbestos-related litigation

Current legal actions related to asbestos are described below.

Asbestos-related litigation in France

Inexcusable fault lawsuits

In France, Everite and Saint-Gobain PAM, which in the past manufactured fiber-cement products containing asbestos fibres, are the subject of actions by former employees of these companies (or persons claiming through them) for recognition of inexcusable fault following diseases recognized as being of occupational origin.

As of December 31, 2022, a total of 850 lawsuits had been issued against the two companies since the outset with the aim of obtaining supplementary compensation over and above the amounts paid by the French Social Security authorities in this respect.

As of the same date, 826 of these 850 lawsuits had been completed and 24 actions are still pending.

The total amount of compensation paid by Everite and Saint-Gobain PAM since the outset of these litigations in settlement of these lawsuits totaled approximately €9.7 million as of December 31, 2022 (compared to €6.6 million as of December 31, 2021).

In addition, similar suits had been filed against 13 French companies of the Group (excluding suits against companies that are no longer part of the Group) which in the past used equipment containing asbestos to protect their employees and installations against heat from furnaces.

As of December 31, 2022, a total of 282 lawsuits had been filed since the outset against these 13 companies. 240 of these 282 lawsuits had been completed and 42 actions were still pending at the same date.

The total amount of compensation paid since the outset of the litigations by these companies was approximately €11.8 million as of December 31, 2022 (compared to approximately €10.5 million as of December 31, 2021).

Anxiety claims

Eight of the Group's subsidiaries, including six that operate or have operated facilities in France classified as containing asbestos, were the subject of anxiety claims brought by current or former employees not suffering from an occupational disease due to asbestos – claiming compensation for prejudice of anxiety suffered as a result of their alleged exposure to asbestos.

As of December 31, 2022, a total of 861 lawsuits had been brought against these companies.

At the same date, 824 suits out of 861 have been definitely completed and 37 were still pending.

The total amount of compensation paid since the outset of the litigations was €8.5 million as of December 31, 2022 (unchanged compared to the amount as of December 31, 2021).

It should be clarified that the above figures do not take into account suits filed against companies that are no longer part of the Group.

Last, the total amount registered as provision for asbestos-related litigations in France – inexcusable faults lawsuits and anxiety claims – amounted to around €8 million as of December 31, 2022 (compared to around €7 million as of December 31, 2021).

Situation in the United States

Measures taken to achieve an equitable and permanent resolution of the former CertainTeed Corporation's legacy asbestos liabilities in the United States

DBMP LLC, an affiliate of CertainTeed LLC based in North Carolina, that holds the legacy asbestos liabilities of the former CertainTeed Corporation, filed, on January 23, 2020, a voluntary petition for relief under Chapter 11 of the US Bankruptcy Code in the US Bankruptcy Court for the Western District of North Carolina in Charlotte. The matter remains pending. The purpose of the filing is to achieve a certain, final and equitable resolution of all current and future claims arising from asbestos-containing products manufactured and sold by the former CertainTeed Corporation.

DBMP LLC intends to seek court authority to establish a trust under Section 524(g) of the US Bankruptcy Code – a specific provision that is applicable to companies that face substantial numbers of asbestos-related claims – to achieve a fair and equitable resolution of its asbestos-related liabilities. Upon establishment of the trust, current and future plaintiffs with qualifying claims will be able to receive faster payment of their claims without the delay, stress and uncertainty of litigation in the tort system; at the same time, the creation and funding of such a trust will permanently and finally resolve DBMP LLC's asbestos liability.

During the course of this bankruptcy process, which is expected to take up to approximately five to eight years, all asbestos litigation will be stayed and all related costs suspended, providing DBMP LLC with the time and protection to negotiate an agreement to be approved on behalf of all claimants and by the court.

This action was taken as a result of the increasing risks presented in the US tort system. Despite the passage of time, the aging of the population and lessening opportunity for claimants to assert legitimate claims of exposure to the asbestos-containing products of the former CertainTeed Corporation, naming practices in the tort system continued to result in a steady volume of claims against DBMP LLC, with no foreseeable end in sight. In addition, there has been, in general, an escalation of settlement demands and verdicts in the tort system.

Certain adversary proceedings have been filed by representatives of current and future asbestos plaintiffs against DBMP LLC, CertainTeed LLC, Saint-Gobain Corporation, Compagnie de Saint-Gobain and various other parties. No decisions on the merits of the claims have been made and such claims do not affect the Company's financial assessment of the Chapter 11 case.

Impact on the financial statements

Following the commencement of the proceeding under Chapter 11 of the US Bankruptcy Code on January 23, 2020, the assets and liabilities of DBMP LLC and its wholly-owned subsidiary Millwork & Panel LLC, and in particular the provision for asbestos-related litigation in the United States, are no longer consolidated in the Group's financial statements.

Nonetheless, because of a funding agreement between CertainTeed LLC and DBMP LLC by which CertainTeed LLC has agreed to fund the costs of the Chapter 11 case and, ultimately, the 524(g) trust, in both cases solely to the extent DBMP LLC is unable to do so in full, the Group recorded in its consolidated financial statements a debt against DBMP LLC amounting to $410 million as of December 31, 2022 ($417 million as of December 31, 2021).

The Group's consolidated income for 2022 is not impacted by the ongoing Chapter 11 proceeding described above.

As a result of this bankruptcy proceeding, all legal costs and indemnity payments related to DBMP LLC's asbestos tort claims have been suspended, and no further charges in relation to such claims have been taken in 2022 (as in 2021).

Situation in Brazil

In Brazil, former employees of Brasilit, that once manufactured fiber cement containing asbestos, suffering from asbestos-related occupational illnesses are offered, depending on the case, either financial compensation alone or lifetime medical assistance combined with financial compensation. Around 1,200 contractual instruments have accordingly been signed to date.

Two class actions were initiated against Brasilit in 2017 by two associations defending former employees exposed to asbestos at the São Caetano (São Paulo state) and Recife (Pernambuco state) plants, asking for their medical assistance and compensation to be revised. First and second instance decisions were rendered in connection with the suit related to the São Caetano plant respectively in July 2020 and July 2021, rejecting the claims of the plaintiffs. The latter have nevertheless appealed the second instance decision. First and second instance decisions were rendered in relation to Recife case, respectively in February and October 2022 rejecting the claiming party arguments. The plaintiff has appealed such second instance decision.

A third class action was initiated against Brasilit in 2019 in Capivari (State of São Paulo) by the Labor prosecutor asking for health insurance, as well as collective moral damages, in favor of employees, former employees and their respective families, as well as subcontractors who were exposed to asbestos. A first instance decision was rendered in September 2020 partly in favor of the plaintiffs. In particular, collective moral damages were granted to the plaintiffs, for an amount reduced to BRL 5 million (€0.8 million). Brasilit has appealed the decision.

Brasilit is subject to controls by the Ministry of Labor and continues to comply with all of its legal obligations with regard to medical assistance for its current and former employees.

In November 2017, the Supreme Court of Brazil decided to ban asbestos definitively across the country. Brasilit stopped using asbestos voluntarily as early as 2002.

20.3 Environmental disputes

PFOA proceedings in the United States

Levels of PFOA (perfluorooctanoic acid) in excess of US Environmental Protection Agency (EPA) health advisories or state maximum contaminant levels for drinking water have been found in municipal water systems and private wells near current Saint-Gobain Performance Plastics (SG PPL) facilities in Hoosick Falls (New York) and Merrimack (New Hampshire), and two former facilities in North Bennington (Vermont) in the United States. PFOA and PTFE (polytetrafluorethylene) have never been manufactured by these plants. SG PPL is a processor of PTFE which it purchases from third party suppliers and which in the past contained some PFOA.

SG PPL has voluntarily provided bottled water in all three communities, installed point-of-entry treatment systems to residents and businesses in all three communities, installed carbon filtration systems on the municipal water supply in Hoosick Falls and funded the installation of a carbon filtration system on the Merrimack Valley District's municipal water supply. In addition, it has voluntarily funded construction of water line extensions in certain communities in the Merrimack and Bennington areas. The investigations are on-going and the scope of responsibility for SG PPL arising from environmental remediation in New Hampshire and New York and clean-up obligations at these sites has not yet been established. The scope of the remediation in Vermont is defined and largely completed; future operation and maintenance obligations remain. Without admitting liability, SG PPL has signed consent orders with the environmental regulators in New York in 2016, in Vermont in 2017 and 2019 with respect to two different areas, and in New Hampshire in 2018, pursuant to which SG PPL has agreed to complete investigations, implement interim or final remediation measures at its current and former facilities and in the case of Vermont and New Hampshire, fund construction of water lines. Responsibility, if any, is expected to be shared with other parties as regards in particular the Hoosick Falls site.

PFOA-related lawsuits alleging both health-related and economic damages claims have been filed in civil courts in New York, New Hampshire and Vermont, some of which are in the form of proposed or certified class actions. It is difficult to predict the timing or outcome of any such litigation, or whether any additional litigation will be brought against SG PPL, however, both the New York and Vermont class actions are settled.

On December 31, 2022, the provision recorded by the Company in respect of this matter amounts to €201 million (compared to €116 million as of December 31, 2021). This provision covers both remediation and litigation related to PFOA matters.

20.4 Other contingent liabilities

Grenfell Tower fire in the United Kingdom

Celotex provides insulation materials for specific applications for the building and construction industry. Insulation materials from two Celotex ranges were purchased via distributors and used in refurbishing Grenfell Tower, London in 2015/2016, including as one component of the rainscreen cladding system designed and installed (by third parties) on the tower's external facade.

Following the Grenfell Tower fire on June 14, 2017, a Public Inquiry was constituted, which is considering, among other things, the modifications made to the building as part of the refurbishment, the role played by the various construction professionals, and the information provided by the manufacturers of the products used. The Inquiry has been conducting its work in two phases: its phase 1 report was published on October 30, 2019; phase 2 commenced in January 2020 and public hearings continued until July 2022, with a final report to follow, most likely in 2023. A criminal investigation into the circumstances of the fire is also in progress.

There are a large number of issues and circumstances that need to be explored and the implications for Celotex are unlikely to be known for some time. Civil proceedings in connection with Grenfell Tower brought against Celotex Limited and/or Saint-Gobain Construction Products UK Limited (which respectively held the Celotex business until or after December 31, 2015) and a number of other defendants – who are also core participants in the Public Inquiry – have been issued by bereaved, survivors and residents and emergency responders. Those proceedings have been stayed prior to the service of full pleadings on the basis that the parties to the litigation are permitted to engage in a confidential alternative dispute resolution process, which if it succeeds would avoid the need for litigation. Celotex and Saint-Gobain Construction Products UK Limited are engaging with other parties in such processes.

Celotex and Saint-Gobain Construction Products UK Limited are unable to communicate on the status of those confidential processes, which are ongoing. However, the financial statements as at 31 December 2022 include a provision covering the principal financial implications that may arise from the process engaged with bereaved, survivors and residents.

The extent to which Celotex may incur further civil or criminal liability in connection with the production, marketing, supply or use of its products is currently unclear and Celotex Limited and Saint-Gobain Construction Products UK are currently unable to make a reliable estimate of their potential liability in this respect.

20.5 Other proceedings and disputes

Some of the Group's companies may also be the subject of other claims made by their employees or by the tax authorities, or in the context of the enforcement of seller's warranties granted by the Group to the buyers of divested businesses (see p. 290, note 5.5.2). Apart from the proceedings and litigation described above, to the best of the Company's knowledge, no other government, court or arbitration proceedings exist (including pending proceedings or proceedings where the Company and/or the Group might be threatened) which could have or have had, in the last 12 months, a significant impact on the financial position or profitability of the Company and/or Group.

NOTE 21 SUBSEQUENT EVENTS

On January 18, 2023, Compagnie de Saint-Gobain issued a €1.15 billion bond split into two tranches:

- a €500 million tranche maturing July 18, 2024 and paying a floating-rate coupon of 3-month Euribor +0.20%;
- a €650 million tranche maturing January 18, 2029 and paying a coupon of 3.5%.

This issue has no impact on the financial statements at December 31, 2022.

8.4 STATUTORY AUDITORS' REPORT ON THE FINANCIAL STATEMENTS

This is a translation into English of the statutory auditors' report on the financial statements of the Compagnie de Saint-Gobain issued in French and it is provided solely for the convenience of English speaking users.

This statutory auditors' report includes information required by French law, such as information about the appointment of the statutory auditors or verification of the management report and other documents provided to shareholders.

This report should be read in conjunction with, and construed in accordance with, French law and professional auditing standards applicable in France.

For the year ended December 31, 2022

To the annual general meeting of Compagnie de Saint-Gobain Company,

COMPAGNIE DE SAINT-GOBAIN

Tour Saint-Gobain

92400 Courbevoie cedex

Opinion

In compliance with the engagement entrusted to us by your annual general meeting, we have audited the accompanying financial statements of Compagnie de Saint-Gobain for the year ended December 31, 2022.

In our opinion, the financial statements give a true and fair view of the assets and liabilities and of the financial position of the Company as at December 31, 2022 and of the results of its operations for the year then ended in accordance with French accounting principles.

The audit opinion expressed above is consistent with our report to the Audit and Risk Committee.

Basis for Opinion

Audit Framework

We conducted our audit in accordance with professional standards applicable in France. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our responsibilities under those standards are further described in the Statutory Auditors Responsibilities for the Audit of the Financial Statements section of our report.

Independence

We conducted our audit engagement in compliance with independence requirements of the French Commercial Code (*code de commerce*) and the French Code of Ethics (*code de déontologie*) for statutory auditors, for the period from January 1, 2022, to the date of our report, and specifically we did not provide any prohibited non-audit services referred to in Article 5(1) of Regulation (EU) No 537/2014.

Justification of Assessments – Key Audit Matters

In accordance with the requirements of Articles L. 823-9 and R. 823-7 of the French Commercial Code (*code de commerce*) relating to the justification of our assessments, we inform you of the key audit matters relating to risks of material misstatement that, in our professional judgment, were of most significance in our audit of the financial statements of the current period, as well as how we addressed those risks.

These matters were addressed in the context of our audit of the financial statements as a whole, approved in the conditions mentioned above, and in forming our opinion thereon, and we do not provide a separate opinion on specific items of the financial statements.

Measurement of investments in subsidiaries and affiliates and related loans and advances

Description of risk

At December 31, 2022, the carrying amount of the Company's investments in subsidiaries and affiliates and related loans and advances stood respectively at €14,093 million and €14,882 million, representing 81% of the net assets of the company. Investments in subsidiaries and affiliates are initially stated at historical cost including incidental expenses and are impaired, when applicable, based on their value in use.

As stated in Note 1 to the financial statements, the value in use is estimated periodically, and in particular at the closing date, using a multi-criteria approach: the Company's equity in the underlying net assets, proportion of consolidated net assets, net present value based on a multiple of a normative performance basis or net present value of future cash flows based on business plans (or long-term budget projections) excluding interest expenses but after tax.

When the value in use is lower than the book value, a provision for impairment is recorded, the impairment losses could result in particular from a decline in the performance of certain subsidiaries or risks relating to the international locations of those companies.

The impairment tests performed by Management have led to book a reversal of impairment amounting to €13 million for the year ended December 31, 2022.

We deemed the measurement of the value in use of the investments in subsidiaries and affiliates and related loans and advances to be a key audit matter due to the materiality of these assets in the balance sheets and the high degree of estimation and judgment required from Management to assess impairment losses. Management's judgment is based in part on assumptions relating, on the one hand, to the multiples applicable to the valuation of the investments and, on the other, to future changes in the cash flows relating to the investments, as well as to the calculation of the appropriate discount rate applied to future cash flows.

How our audit addressed this risk

We examined the impairment test procedure applied by the Company's financial management team, verified the consistency of the method used and tested the effectiveness of the controls implemented by Management to ensure the quality and reliability of the procedure.

With the support of our valuation experts, we carried out an independent analysis of certain key assumptions used by Management to perform the tests, pertaining, as appropriate, to the multiple deemed applicable to the valuation of the investments or to the discount rate and average perpetual growth rate used to project future cash flows, referring both to external market data and analyses of comparable companies.

For each investment selected for our tests of detail, we corroborated the calculation parameters applied in Management's multi-criteria approach with the accounting and budget data available for that investment. Where projected future cash flows were used, we analyzed the consistency of the projections with past performance and our knowledge of the Company's business, supported by interviews with managers from the various businesses, and in so far as they were available, by external data relating to markets or competitors. We paid particularly close attention to the calculation of the normalized amount of the terminal cash flows projected to perpetuity.

Specific vérifications

We have also performed, in accordance with professional standards applicable in France, the specific verifications required by laws and regulations.

Information given in the management report and in the other documents with respect to the financial position and the financial statements provided to the Shareholders

We have no matters to report as to the fair presentation and the consistency with the financial statements of the information given in the management report of the Board of Directors and in the other documents with respect to the financial position and the financial statements provided to the Shareholders.

We attest the fair presentation and the consistency with the financial statements of the information relating to the payment deadlines mentioned in Article D.441-4 of the French Commercial Code (*code de commerce*).

Report on corporate governance

We attest that the Board of Directors' report on corporate governance sets out the information required by Articles L.225-37-4, L.22-10-10 and L.22-10-9 of the French Commercial Code (*code de commerce*).

Concerning the information given in accordance with the requirements of Article L.22-10-9 of the French Commercial Code (*code de commerce*) relating to remunerations and benefits received by the directors and any other commitments made in their favour, we have verified its consistency with the financial statements, or with the underlying information used to prepare these financial statements and, where applicable, with the information obtained by your company from controlling and controlled companies. Based on these procedures, we attest the accuracy and fair presentation of this information.

With respect to the information relating to items that your company considered likely to have an impact in the event of a takeover bid or exchange offer, provided pursuant to Article L.22-10-11 of the French Commercial Code (*code de commerce*), we have agreed this information to the source documents communicated to us. Based on these procedures, we have no observations to make on this information.

Other information

In accordance with French law, we have verified that the required information concerning the identity of the shareholders and holders of the voting rights has been properly disclosed in the management report.

Report on Other Legal and Regulatory Requirements

Format of the presentation of the financial statements intended to be included in the annual financial report

We have also verified, in accordance with the professional standard applicable in France relating to the procedures performed by the statutory auditor relating to the annual and consolidated financial statements presented in the European single electronic format, that the presentation of the financial statements intended to be included in the annual financial report mentioned in Article L. 451-1-2, I of the French Monetary and Financial Code (*code monétaire et financier*), prepared under the responsibility of the Chief Executive Officer, complies with the single electronic format defined in the European Delegated Regulation No 2019/815 of 17 December 2018.

Based on the work we have performed, we conclude that the presentation of the financial statements intended to be included in the annual financial report complies, in all material respects, with the European single electronic format.

We have no responsibility to verify that the financial statements that will ultimately be included by your company in the annual financial report filed with the AMF are in agreement with those on which we have performed our work.

Appointment of the Statutory Auditors

We were appointed as statutory auditors of Compagnie de Saint-Gobain by the annual general meeting held on June 10, 2004, for KPMG and on June 2, 2022 for Deloitte & Associés.

As at December 31, 2022, KPMG and Deloitte & Associés were in the 19th year and 1st year of total uninterrupted engagement.

Responsibilities of Management and those charged with governance for the financial statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with French accounting and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless it is expected to liquidate the Company or to cease operations.

The Audit and Risk Committee is responsible for monitoring the financial reporting process and the effectiveness of internal control and risks management systems and where applicable, its internal audit, regarding the accounting and financial reporting procedures.

The financial statements were approved by the Board of Directors.

Statutory Auditors' Responsibilities for the Audit of the Financial Statements

Objective and audit approach

Our role is to issue a report on the financial statements. Our objective is to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with professional standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As specified in Article L.823-10-1 of the French Commercial Code (*code de commerce*), our statutory audit does not include assurance on the viability of the Company or the quality of management of the affairs of the Company.

As part of an audit conducted in accordance with professional standards applicable in France, the statutory auditor exercises professional judgment throughout the audit and furthermore:

- Identifies and assesses the risks of material misstatement of the financial statements, whether due to fraud or error, designs and performs audit procedures responsive to those risks, and obtains audit evidence considered to be sufficient and appropriate to provide a basis for his opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtains an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control.
- Evaluates the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management in the financial statements.
- Assesses the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. This assessment is based on the audit evidence obtained up to the date of his audit report. However, future events or conditions may cause the Company to cease to continue as a going concern. If the statutory auditor concludes that a material uncertainty exists, there is a requirement to draw attention in the audit report to the related disclosures in the financial statements or, if such disclosures are not provided or inadequate, to modify the opinion expressed therein.
- Evaluates the overall presentation of the financial statements and assesses whether these statements represent the underlying transactions and events in a manner that achieves fair presentation.

Report to the Audit and Risk Committee

We submit a report to the Audit and Risk Committee which includes, in particular, a description of the scope of the audit and the audit program implemented, as well as the results of our audit. We also report any significant deficiencies in internal control that we have identified regarding the accounting and financial reporting procedures.

Our report to the Audit and Risk Committee includes the risks of material misstatement that, in our professional judgment, were the most significant for the audit of the financial statements and which constitute the key audit matters that we are required to describe in this report.

We also provide the Audit and Risk Committee with the declaration provided for in article 6 of Regulation (EU) No 537/2014, confirming our independence within the meaning of the rules applicable in France, as defined in particular in articles L.822-10 to L.822-14 of the French Commercial Code and in the French Code of Ethics for Statutory Auditors. Where appropriate, we discuss any risks to our independence and the related safeguard measures with the Audit and Risk Committee.

Paris-La Défense, February 23, 2023

The Statutory Auditors

French original signed by

KPMG S.A.		Deloitte & Associés	
Pierre-Antoine DUFFAUD	Laurent CHILLET	Frédéric GOURD	Bénédicte MARGERIN

8.5 MANAGEMENT REPORT – COMPAGNIE DE SAINT-GOBAIN ANNUAL FINANCIAL STATEMENTS

Compagnie de Saint-Gobain's net income totaled €1,496 million in 2022 (2021: €1,458 million). It consisted primarily of financial income from subsidiaries and affiliates (dividends and income transfers from subsidiaries of the German branch) totaling €1,201 million in 2022 (2021: €927 million), reversals of impairment recognized against investments in subsidiaries and affiliates totaling €13 million (2021: €345 million), an income tax benefit of €253 million (2021: €261 million) from the French and German tax consolidation groups, less a net exceptional expense of €19 million in 2022 (2021: €68 million) due mainly to provisions for taxes and for performance share plans awarded to employees.

Shareholders' equity before the appropriation of income for the year totaled €17,826 million at December 31, 2022 (December 31, 2021: €17,612 million).

8.5.1 SIGNIFICANT EVENTS DURING THE YEAR

Transactions involving shareholders' equity

The principal events that contributed to changes in capital stock and shareholders' equity were:

- the May 2022 increase in capital stock through the subscription of 4,916,097 shares under the Group Savings Plan at a price of €45.19 for a gross and net amount of €222 million;
- the capital reductions of June 10, 2022 and October 4, 2022 through the cancellation of 8,871,654 and 4,305,432 shares, respectively, for a total gross and net amount of €670 million;
- on June 8, 2022, the Company paid dividends representing a total payout of €835 million.

Acquisition of GCP

On December 6, 2021, Saint-Gobain and GCP Applied Technologies announced that they had entered into a definitive agreement pursuant to which Saint-Gobain will acquire all of the outstanding shares of GCP for USD 32.00 per share, in cash, in a transaction valued at approximately USD 2.3 billion (approximately €2.0 billion). This acquisition is a decisive step in establishing Saint-Gobain's leading position worldwide in construction chemicals with total sales of more than €4 billion (up from €3 billion previously), and furthers the Group's strategy as worldwide leader in light and sustainable construction.

On September 22, 2022, Saint-Gobain obtained the necessary approvals from the relevant competition authorities and the transaction closed on September 27, 2022. GCP was subsequently delisted from the New York Stock Exchange.

With approximately USD 1.0 billion in revenues generated in 2021 by 1,800 employees working on 50 production sites in 38 countries, GCP Applied Technologies provides a global platform with established success in cement additives, concrete admixtures, infrastructure and commercial and residential building materials.

The specialty building materials business in North America (approximately USD 250 million of sales) has been integrated into the CertainTeed business serving local customers in its Region. All other businesses, consisting of mainly concrete admixtures and cement additives (approximately USD 750 million of sales), have been combined with Chryso in a newly formed "Construction Chemicals" business unit within High Performance Solutions.

Acquisition of Kaycan

On May 31, 2022, Saint-Gobain announced that it had entered into a definitive agreement to acquire Kaycan, Ltd, a family-owned manufacturer and distributor of exterior building materials in Canada and in the United States, for USD 928 million (approximately €860 million) in cash. The transaction was finalized on July 29, 2022.

With this acquisition, Saint-Gobain reinforces its worldwide leadership in light and sustainable construction by becoming the top siding player in Canada and enlarging its vinyl offer across the United States with complementary solutions including aluminum and engineered wood.

Sale of the Crystals and Detectors business

On September 1, 2022, Saint-Gobain announced that it had entered into an exclusive negotiation process for the sale of its Crystals and Detectors business – part of High Performance Solutions – to a consortium led by SK Capital Partners associated with Edgewater Capital Partners, both US private equity firms with expertise in advanced materials which have made a binding and irrevocable offer for an enterprise value of USD 214 million. The transaction was finalized on December 1, 2022.

The Crystals and Detectors business employs around 400 people, operates six production sites (two in France, three in the United States and one in India) and generated revenues of close to €75 million in 2021 with an adjusted EBITDA margin of around 20%. It provides radiation detection solutions for medical imaging, security, nuclear safety, oil and gas exploration and environmental monitoring, as well as sapphire products for medical, industrial, electronics, and aerospace applications.

This transaction aims at focusing the Group's High Performance Solutions activities on markets where Saint-Gobain, thanks to its leadership positions and its innovation capabilities, enables its customers to accelerate towards carbon neutrality and circularity. It is part of Saint-Gobain's continued business profile optimization strategy, in line with the "Grow & Impact" plan objectives.

Sale of the Distribution business in the United Kingdom

On December 12, 2022, following a competitive sale process, Saint-Gobain announced that it had signed an agreement to sell all of all its merchanting brands in the United Kingdom – including the builders and timber merchant Jewson – to the Stark group.

The divested assets generated revenues of around €2.7 billion in 2022 with an operating margin of around 2%. They comprise 600 outlets and employ 8,900 people. The divestment was made based on an enterprise value of GBP 740 million, i.e. around €850 million.

The transaction, which is not subject to any external conditions, is expected to close in the first quarter of 2023, following which Saint-Gobain will no longer have any distribution businesses in the UK.

It follows the divestment of specialist distribution brands in the United Kingdom over the last 18 months representing around €650 million of revenues at around breakeven in terms of operating margin, based on an enterprise value of around €200 million.

These divestments are part of Saint-Gobain's continued business profile optimization strategy to enhance the Group's growth and profitability in line with its "Grow & Impact" plan.

Financing activities

Compagnie de Saint-Gobain also redeemed the following instruments at maturity:

- €900 million worth of 3.625% bonds on March 28, 2022;
- €100 million worth of 3.6% bonds on October 10, 2022.

On May 18, 2022, Compagnie de Saint-Gobain partially redeemed a bond for a face value of GBP 183.6 million. The amount outstanding under this bond, originally issued for GBP 300 million, represents GBP 116.4 million maturing on November 15, 2024 with a coupon of 5.625%.

On August 10, 2022, Compagnie de Saint-Gobain issued a €1.5 billion bond divided into three tranches:

- a €500 million tranche maturing August 10, 2025 and paying a coupon of 1.625%;
- a €500 million tranche maturing June 10, 2028 and paying a coupon of 2.125%;
- a €500 million tranche maturing August 10, 2032 and paying a coupon of 2.625%.

The ten-year tranche is a Sustainability-Linked Bond (SLB) linked to two important indicators of Saint-Gobain's sustainability roadmap, with ambitious 2030 targets in relation to the 2017 base year:

- reduce by 33% the absolute scope 1 and 2 CO_2 emissions;
- achieve an 80% reduction in non-recovered production waste.

A 0.375% step-up would apply on the 2032 coupon for each of these indicators if their respective target was not met.

On January 18, 2023, Compagnie de Saint-Gobain issued a €1.15 billion bond split into two tranches:

- a €500 million tranche maturing July 18, 2024 and paying a floating-rate coupon of three-month Euribor +0.20%;
- a €650 million tranche maturing January 18, 2029 and paying a coupon of 3.5%.

This issue has no impact on the financial statements at December 31, 2022.

8.5.2 OTHER MANDATORY DISCLOSURES

Maturity of amounts owed to suppliers and from customers

Pursuant to Article D. 441-6, amounts owed to suppliers and from customers can be analyzed as follows by maturity:

	Article D.441 I.-1: Overdue invoices from suppliers unpaid at Dec 31, 2021						Article D.441 I.-2: Overdue invoices to customers unpaid at Dec 31, 2021					
(in EUR thousands)	0 days (for information)	1 to 30 days	31 to 60 days	61 to 90 days	91 days and more	Total (1 day and more)	0 days (for information)	1 to 30 days	31 to 60 days	61 to 90 days	91 days and more	Total (1 day and more)
(A) OVERDUE BY DELAY												
Number of invoices	2					262	0					1,651
Total value of invoices incl. VAT	0	11,058	145	171	445	11,819	0	28,699	2,326	639	7,692	39,356
Percentage of 2021 total purchases incl. VAT	0.0%	3.0%	0.0%	0.0%	0.0%	3.0%						
Percentage of 2021 sales incl. VAT							0.0%	5.0%	0.4%	0.1%	1.3%	6.8%
(B) INVOICES EXCLUDED FROM (A) RELATING TO DISPUTED OR UNRECOGNIZED PAYABLES/RECEIVABLES												
Number of invoices						0						0
(C) METHOD USED TO CALCULATE OVERDUE INVOICES (CONTRACTUAL OR STATUTORY PERIOD – ARTICLE L.441-6 OR L.443-1 OF THE FRENCH COMMERCIAL CODE)												
Method used to calculate overdue invoices	Due date of the invoice						Due date of the invoice					

Compagnie de Saint-Gobain settles its debts by their given due dates. The only invoices not settled by their due dates are those subject to disputes and classified as pending decisions, as well as invoices that were received late.

Company branch

Compagnie de Saint-Gobain has a German branch.

8.6 FIVE-YEAR FINANCIAL SUMMARY

(in EUR thousands)	2022	2021	2020	2019	2018
1 – CAPITAL STOCK AT YEAR-END					
Share capital	2,063	2,096	2,131	2,179	2,186
Number of common shares outstanding	515,769,082	524,017,595	532,683,713	544,683,451	546,585,004
2 – RESULTS OF OPERATIONS					
Sales	383	301	281	297	189
Income before tax, depreciation, amortization and provisions	1,187	879	695	677	915
Income tax	253	261	185	226	154
Income after tax, depreciation, amortization and provisions (net income)	1,496	1,458	862	849	669
Dividends	1,024 (1)	835 (2)	698 (3)	0 (4)	716 (5)
3 – EARNINGS PER SHARE *(in EUR)*					
Income before tax, depreciation, amortization and provisions	2.30	1.68	1.30	1.24	1.67
Income after tax, depreciation, amortization and provisions (net income)	2.90	2.78	1.62	1.56	1.22
Net dividend per share	2.00	1.63	1.33	0.00	1.33
4 – EMPLOYEE INFORMATION (6)					
Average number of employees during the year	192	185	188	201	200
Total payroll for the year	35	40	32	34	31
Total benefits paid for the year	20	24	18	15	15

(1) *Estimated amount based on 515 781 821 shares carrying, at January 31, 2022, rights to dividends in respect of 2022 less 3 718 501 treasury shares held at January 31, 2023.*

(2) *Based on 524 017 595 shares carrying rights to dividends in respect of 2021 less 12 011 295 treasury shares held on the ex-dividend date.*

(3) *Based on 532,695,363 shares carrying rights to dividends in respect of 2020, less 7,637,902 treasury shares held on the ex-dividend date.*

(4) *No dividend was paid in respect of 2019.*

(5) *Based on 546,585,333 shares carrying rights to dividends in respect of 2018, less 7,953,739 treasury shares held on the ex-dividend date.*

(6) *Employee numbers only include staff at the Company's head office and exclude the German branch.*

9

ADDITIONAL INFORMATION AND CROSS-REFERENCE TABLES

9.1 ADDITIONAL INFORMATION

9.1.1 PRINCIPAL STATUTORY PROVISIONS AND INTERNAL RULES OF THE BOARD OF DIRECTORS

A – Principal statutory provisions

The main provisions of Compagnie de Saint-Gobain's bylaws are summarized below.

A complete version of the bylaws may be consulted on the Company's website (www.saint-gobain.com). A copy may also be obtained upon request from the clerk of the Commercial Court of Nanterre and at the Company's headquarters.

Corporate name, form, head office and duration (Articles 1, 2, 4 and 5)

A French *société anonyme* governed by the provisions of Articles L. 210-1 et seq. of the French Commercial Code, Compagnie de Saint-Gobain's head office is Tour Saint-Gobain, 12, place de l'Iris, 92400 Courbevoie, France (Tel: +33 (0)1 88 54 00 00). It is registered with the Trade and Companies Register of Nanterre under No. 542 039 532.

The Company was founded in 1665 and registered with the Trade and Companies Register on July 21, 1954, for a period that will expire on December 31, 2040, unless it is subject to early dissolution or extension.

Corporate purpose (Article 3)

The Company's summarized corporate purpose is to conduct and manage, in France and internationally, any industrial, commercial, financial, securities and real estate transactions related to its manufacturing and contracting activities through French or foreign subsidiaries or equity interests or otherwise.

Fiscal year (Article 19)

Its fiscal year runs from January 1 to December 31.

Share capital and disclosure thresholds (Articles 6 and 7)

As of December 31, 2022, the share capital was set at €2,063,076,328 divided into 515,769,082 shares with a par value of €4.00 each, entirely paid up and all of the same class.

The bylaws (Article 7.4) require shareholders to disclose to the Company within five trading days any direct, indirect or joint interest representing at least 0.50% of the share capital or voting rights, or any multiple of this percentage.

The same disclosure requirement applies when a direct, indirect or joint equity interest falls below any of these thresholds.

Failure to comply with these disclosure rules may result in the undisclosed shares exceeding this percentage being deprived of voting rights for a period of two years from the date when the non-disclosure is remedied, at the request of one or more shareholders representing at least 3% of the share capital or voting rights, as recorded in the minutes of the General Meeting.

Furthermore, the Company may request information regarding the composition of its shareholding structure and the ownership of its shares in accordance with current laws and regulations.

Share rights (Article 8)

Each share entitles the owner to ownership of corporate assets and liquidation proceeds equal to the proportion of the share capital it represents.

Whenever it is necessary to own a certain number of shares to exercise a right, the owners who do not hold that number must arrange for the pooling of the required number of shares where appropriate.

Each share entitles the holder to vote at the General Meetings under the conditions stipulated in the bylaws (see Article 18 below).

Ownership of a share automatically entails acceptance of the Company's bylaws and the decisions of the General Meeting.

Company Management (Articles 9 to 12, 14 and 15)

The Company is administered by a Board of Directors of at least three members and no more than eighteen members, subject to the exceptions provided for by law in the event of a merger.

Directors are elected for a four-year term. They may be reappointed subject to the age limit of 70. The age limit for the Chairman of the Board of Directors is 68. The Chairman of the Board of Directors may also hold the position of Chief Executive Officer of the Company at the discretion of the members of the Board. In this case, the Chairman of the Board of Directors has the title of Chairman and Chief Executive Officer, and the age limit is 65 (like that of the Chief Executive Officer and the Chief Operating Officers).

One Director representing employee shareholders is appointed by the General Shareholders' Meeting under the conditions of quorum and majority applicable to any appointment of a Director from among the employee shareholders or, where appropriate, from among the members of the Supervisory Boards of the corporate mutual fund(s) of the Company's Group Savings Plan. It is governed by all the laws and provisions of the bylaws applicable to the Directors appointed by the General Shareholders' Meeting as well as those specific to it.

Procedure for appointing candidates for the office of Director representing employee shareholders

Candidates for the office of Director representing employee shareholders are presented to the General Shareholders' Meeting as follows:

- one candidate is appointed from among its members by the Supervisory Board of the corporate mutual fund of the Company's Group Savings Plan. If there is more than one corporate mutual fund, each Supervisory Board of such corporate mutual funds appoints one candidate from among its members;

- one candidate is elected by the employees holding registered shares as part of a consultation process defined by General Management. Voting may take place by any technical means that ensures the reliability of the vote, whether by electronic means or by mail, with each employee holding a number of votes equal to the number of registered shares they hold. The candidate with the highest number of votes is presented to the General Shareholders' Meeting.

Election of the Director representing employee shareholders

If there is more than one candidate for the office of Director representing employee shareholders, the Board of Directors may approve the appointment of one of them. The candidate with the highest number of votes at the General Shareholders' Meeting is appointed Director representing employee shareholders.

The Company's Works Council (*Comité de Groupe*) appoints two Employee Directors. Employee Directors are appointed within six months of the General Shareholders' Meeting.

The term of office of a Director ends at the conclusion of the Ordinary General Meeting called to approve the financial statements for the previous fiscal year held in the calendar year during which this Director's term expires. The duties of an Employee Director (including a Director representing employee shareholders) also end if the employment contract is terminated, as of the date of the termination, subject to intragroup transfer. If the conditions for application of the law are not met, the term of office of the Employee Directors (including a Director representing employee shareholders) ends upon completion of the Board meeting that confirms the Company's exit from the scope of application of the law.

The Board of Directors determines the Company's overall business strategy and examines any issues relating to its proper functioning.

The activities of the Board of Directors are organized and led by its Chairman.

Board meetings may be held using videoconferencing or other interactive telecommunication technology under the conditions stated by law.

Each Director appointed by the General Shareholders' Meeting must own at least eight hundred shares, except Employee Directors and the Director representing employee shareholders.

General Management (Articles 13 and 15)

At the discretion of the Board of Directors, the Company's General Management is assumed either by the Chairman of the Board of Directors, in this case in the capacity of Chairman and Chief Executive Officer, or by the Chief Executive Officer.

The Chief Executive Officer, chosen by the Board of Directors, whether or not from among its members, is vested with the broadest authority to act under any circumstances in the name of the Company within the limits of the corporate purpose and subject to such powers as the law expressly attributes to General Meetings and the Board of Directors. The Chief Executive Officer represents the Company in its relations with third parties.

General Meetings and voting rights (Article 18)

Any shareholder may participate in General Meetings in person or by proxy, provided that his/her/its shares have been formally recorded in the accounts, subject to the applicable legal provisions.

Where decided by the Board of Directors, shareholders may be convened to and vote at a General Meeting by any form of electronic communication. Any shareholder may be represented under the conditions provided for by law. Shareholding legal entities are represented at a General Meeting by their legal representative or by any person designated by that legal representative for this purpose.

At all General Meetings, voting rights are exercisable by the beneficial owner of the shares. Each shareholder has a number of voting rights corresponding to the number of shares held, without limitation.

However, double voting rights are allocated to fully paid-up shares registered in the name of the same shareholder for at least two years.

In addition, in the case of a capital increase through capitalization of reserves, profits or share premiums, registered shares allocated free of charge to a shareholder carry double voting rights from the date on which they are issued on the basis of shares already held by the shareholder carrying such entitlement.

Double voting rights are forfeited when the shares are converted to bearer form or sold. However, double voting rights are not forfeited when title is transferred by way of an inheritance or as a result of the liquidation of the marital estate or an inter vivos donation to a spouse or a relative in the direct line of succession. The transfer is not considered in calculating the qualifying period indicated in the preceding paragraph.

Shareholders may vote by mail in accordance with applicable laws and regulations.

Allocation and appropriation of net income (Article 20)

An appropriation of at least five percent is deducted from net income, less any losses carried forward from the previous year, and allocated to the reserve fund prescribed by law. This appropriation is no longer mandatory once the reserve fund reaches a sum equal to one tenth of the share capital. It is reactivated if the reserve falls below one tenth.

Distributable income corresponds to net income for the fiscal year less any losses carried forward from prior years and less any amounts to be credited to reserves in application of the law or the Company's bylaws, plus retained earnings.

The General Meeting may appropriate this distributable net income for the period as follows:

1. all or part of this amount to any contingency or special reserves or to retained earnings, based on a recommendation of the Board of Directors;
2. if these appropriations do not absorb the total amount of distributable income, shareholders are paid a non-cumulative first dividend equal to five percent of the paid-up par value of shares without being entitled to claim such payment from appropriations from the distributable income of subsequent years;
3. if any funds remain after paying these appropriations, they are divided among the shareholders.

The General Meeting approving the financial statements for the fiscal year may decide to offer shareholders the option of receiving all or part of the dividend (or any interim dividend) in cash or in shares.

B – Internal rules of the Board of Directors

Compagnie de Saint-Gobain's internal rules of the Board of Directors in force as of February 1, 2023, describe the Board's organization and functioning. The internal rules were last updated by the Board of Directors on July 29, 2021.

The provisions of the Board's internal rules are reproduced in their entirety below, except for the provisions that concern Board Committees, which are set out in section 5.1.2, p. 176. Paragraphs shown in italics below provide commentary.

"These internal rules aim to set out the organization and functioning of Compagnie de Saint-Gobain's Board of Directors.

They are to be applied in conjunction with the rules and duties laid out in those applicable legal and regulatory provisions and the Company's bylaws, which have not been reproduced below.

They implement the recommendations of the AFEP-MEDEF Corporate Governance Code for French listed companies.

I. Meetings of the Board of Directors

The Board of Directors holds at least seven scheduled meetings each year. At each year-end, an annual work program is drawn up by the Chairman of the Board of Directors and given to the Directors for the following year. The draft minutes of each meeting are sent to the Directors at the same time as the agenda for the next meeting. They are approved at that meeting, and the final minutes are then sent with the agenda for the next meeting.

Except for meetings held to approve the annual financial statements of the Company, the annual consolidated financial statements and the annual management report, Directors who take part in a Board meeting using videoconferencing or other telecommunication technology enabling them to be identified and participate actively in the discussion are deemed to be present for calculation of the quorum and voting majority.

II. Prior and ongoing information for Directors

Each time a meeting is called, Directors are provided with a selection of financial analyses and a range of press articles concerning the Group published since the last Board meeting.

The text of explanations and presentations scheduled on the agenda for a meeting is sent to the Directors before the meeting.

The draft Universal Registration Document for the Group, the draft consolidated financial statements and the draft annual and interim financial statements are sent to the Directors before the meeting at which they are to be considered.

The information file provided to the Directors at each meeting includes, among other things, an analysis of the Group's operating income and its net debt at the end of the previous month, as well as details of the Saint-Gobain share performance compared with the CAC 40 and an industry index.

One Board meeting is held at a different Group site each year to give the Directors an opportunity to visit that site.

Between meetings, the Directors receive copies of all press releases issued by the Company along with any relevant information about events or transactions that are material for the Group.

Directors have the right to ask for any other documents that they consider necessary to make an informed contribution to the Board's discussions; the request is made to the Chairman of the Board of Directors, who may submit the request to the Board for a decision.

Directors may also ask to meet with the Senior Management of the Group and to request that no executive corporate officers are present; in the latter case, notice is first given to the Chairman of the Board of Directors and the Chief Executive Officer, and the Chairman may submit the request to the Board for a decision.

III. Deliberations of the Board of Directors

The Board of Directors examines all issues that fall within its remit, as specified in the applicable laws and regulations and the Company's bylaws, particularly on the following subjects:

The Board of Directors meets annually to review and approve the budget for the Group.

It reviews and approves the strategic orientations of the Group at least once a year and monitors their implementation, taking into account the social and environmental challenges of its business.

All capital expenditures, restructuring, disposals, acquisitions and financial investment and divestment projects in individual amounts greater than €150 million must be submitted to the Board for prior approval, along with any material transactions that fall outside the Saint-Gobain Group's stated strategy.

For urgent matters where there is not enough time to call a Board meeting, the Chairman of the Board of Directors provides the Directors with all relevant information by the most efficient method to obtain their opinion.

Once a year, the Board of Directors dedicates an item on its agenda to a discussion about its operation. In addition, an assessment of its organization and operation is carried out periodically at the initiative of the Lead independent Director; this assessment is added to the agenda of a subsequent Board meeting.

Every year, the Board of Directors also reviews each Director's situation in relation to the independence criteria set out in the AFEP-MEDEF Code, based on a report prepared by the Nomination and Remuneration Committee. The results of the review are reported to shareholders in the annual report.

Non-executive Directors may meet during or after a Board meeting, without the executive corporate officers being present, to assess their performance and consider the future line-up of the Group's General Management.

IV. Role of the Chairman of the Board of Directors

The Chairman organizes and directs the work of the Board of Directors and sets the agenda. The Chairman sets the schedule and agenda for Board meetings, convenes them and chairs them.

In consultation with the Chairmen of the Committees concerned, the Chairman sets the schedule and agenda of meetings of Committees of the Board of Directors and convenes them.

The Chairman ensures that the Company's governing bodies function properly, that the Directors are able to fulfill their duties, and, in particular, that they have all the necessary information.

The Chairman convenes, chairs, coordinates and reports to the Chief Executive Officer on meetings of the Directors without the presence of the executive corporate officers, which may be held during or at the end of a Board meeting, where appropriate, co-chaired by the Lead independent Director (or the Chairman of the Nomination and Remuneration Committee when matters falling within the remit of this Committee, in particular compensation components for the Chief Executive Officer, are discussed).

The Chairman reports on the work of the Board of Directors to the General Shareholders' Meeting and chairs this meeting.

V. Board of Directors Committees

The work and decisions of the Board of Directors are prepared in their respective areas by Committees (the Audit and Risk Committee, the Nomination and Remuneration Committee and the Corporate Social Responsibility Committee), composed of Directors appointed by the Board. The Chairman and the Chief Executive Officer may attend their meeting, except when the matter concerns them. In this case, they do not participate in the discussions and deliberations on the subjects in question.

Committee members may participate in meetings by videoconference or other telecommunication technology enabling them to be identified and ensuring their effective participation. They are then considered present at these Committee meetings.

To fulfill their duties, these Board Committees may commission technical studies by outside experts at Compagnie de Saint-Gobain's expense and consult Group executives after notifying the Chief Executive Officer and the Chairman of the Board of Directors, who may submit the request to the Board for a decision. They report to the Board on the opinions and information obtained.

The Chairman of each Board Committee designates the person responsible for acting as secretary of the Committee.

The Board's internal rules also cover, among other things, the respective duties and areas of the three Board Committees. A description of these duties and areas is provided in section 5.1.2, p. 176, in the passage dedicated to each Committee.

VI. Lead independent Director

The Board of Directors may appoint a Lead independent Director from among the Board's independent Directors. The Lead independent Director remains in office for the duration of the term as Director. The Lead independent Director may be reappointed and may be removed at any time by the Board of Directors.

Duties of the Lead independent Director

The Lead independent Director's main responsibility is to oversee the efficient running of the Company's governance bodies. As such, the Lead independent Director is in charge of:

- preventing and managing conflicts of interest: the Lead independent Director is responsible for preventing the occurrence of situations of conflicts of interest. The Lead independent Director informs the Board of Directors of any known conflicts of interest concerning the Directors;
- conducting the periodic assessment of the organization and operation of the Board of Directors;
- at the Chairman's request, serving as a point of contact for Compagnie de Saint-Gobain's shareholders on governance issues and, where appropriate, meet with them;
- in conjunction with the Chairman of the Board of Directors, ensuring that the Directors receive the information they need to perform their duties under the best possible conditions, in accordance with these internal rules;
- more generally, ensuring compliance with the internal rules of the Board of Directors.

Means available to the Lead independent Director

In the course of the assigned duties, the Lead independent Director has the right to:

- suggest to the Chairman the addition of points to the agenda of any Board meeting;
- ask the Chairman to convene the Board of Directors on a specific agenda, including for a meeting without the presence of executive corporate officers;
- convene and chair the Board meetings in the event of the temporary inability or death of the Chairman; and
- attend, where applicable, meetings of the Committees of which the Lead independent Director is not a member to the extent strictly necessary to accomplish the assigned duties and upon the approval by the Chairman of the Board of Directors.

Once a year, the Lead independent Director reports the actions taken to the Board of Directors. The Chairman of the Board of Directors may invite the Lead independent Director to General Meetings to report on actions taken.

VII. Duties of the Directors

Directors have regular access to inside information within the meaning of financial market laws and regulations and comply with insider trading prevention provisions.

Closed periods are also set each year, during which Directors are prohibited from trading directly or indirectly and from derivative transactions in Compagnie de Saint-Gobain's securities.

These closed periods cover the thirty days preceding the Board meetings at which the annual and interim consolidated financial statements are reviewed, the fifteen days preceding the publication of quarterly revenue figures, and the day following the publication of the annual and half-year results.

The Board Secretary sends the precise calendar of the closed periods to the Directors each year. *The Group's Senior Management and employees having regular or occasional access to insider information are also subject to these closed periods.*

Directors must declare to the French Financial Markets Authority (Autorité des marchés financiers) any trades they have executed involving Compagnie de Saint-Gobain's securities, in compliance with applicable regulations.

Directors hold their Compagnie de Saint-Gobain shares in registered form.

Beyond the obligation of discretion provided by law, Directors are bound by a general duty of confidentiality with regard to the documents and information communicated to them before or during the meetings, as well as on the deliberations of the Board of Directors, until they have been made public.

They must seek to avoid any actual or potential conflict of interest, whether direct or indirect. If any such conflict of interest should arise, they must inform the Chairman of the Board of Directors and the Lead independent Director and refrain from participating in discussions and votes on the topics in question.

The Chief Executive Officer must consult the Board before accepting any new appointment in a publicly traded company.

VIII. Compensation of the Directors and reimbursement of expenses

The Board of Directors distributes among the Directors, except the Chairman and the Chief Executive Officer, who do not receive any compensation in this respect, the annual amount allocated by the General Meeting as compensation for the activities of the Directors.

The amounts granted in respect of the fixed-base amount are paid pro rata temporis when terms of office begin or end during the course of a fiscal year.

The compensation is paid in two half-yearly installments in arrears, with any balance available from the annual amount distributed at the beginning of the next fiscal year based on variable parts allocated to each Director depending both on his/her participation to Board and Committees meetings held during the prior fiscal year.

Upon submission of the necessary supporting documents, Directors may be reimbursed for travel expenses and any expenses incurred in performing their duties as Directors of the Company.

IX. Other provisions

All Directors may receive additional training on the Group's specific characteristics, business lines, operating segments and social and environmental responsibilities if they consider it necessary.

Those appointed to the Audit and Risk Committee may receive training in the accounting, financial and operational aspects specific to the Group's activities if they consider it useful.

Unless impeded, the Directors must attend the General Shareholders' Meeting."

9.1.2 DOCUMENTS AVAILABLE TO THE PUBLIC

For the period of validity of this Universal Registration Document, the following documents (or a copy of them) relating to the Company may be consulted through the Investor Relations Department at the Company's head office at Tour Saint-Gobain, 12, place de l'Iris, 92400 Courbevoie (France) and may be viewed online at www.saint-gobain.com:

- this Universal Registration Document, which may also be consulted on the website of the *Autorité des marchés financiers* (AMF) (www.amf-france.org);
- the Company bylaws; and
- any reports, letters and other documents, historical financial information, assessments and statements prepared by an outside expert at the Company's request, a part of which is included in or referred to in this Universal Registration Document.

9.1.3 PERSONS RESPONSIBLE FOR THE UNIVERSAL REGISTRATION DOCUMENT

Person responsible for the Universal Registration Document

Benoit Bazin, Chief Executive Officer of Compagnie de Saint-Gobain.

Statement by the person responsible for the Universal Registration Document including the Annual Financial Report

I hereby declare that the information contained in this Universal Registration Document is, to the best of my knowledge, consistent with the facts and contains no omission likely to affect its import.

I further declare that, to the best of my knowledge, the financial statements have been prepared in accordance with applicable accounting standards and give a true and fair view of the assets, liabilities, financial position and results of the Company and all the companies included in the consolidation scope and that the information provided in the management report contained in this Universal Registration Document and listed in the cross-reference table in section 9.3.2, p. 384, provides a true and fair view of the evolution of the business, results and financial position of the Company and of all the companies included in the consolidation scope, as well as a description of the main risks and uncertainties to which they are exposed.

Courbevoie, March 22, 2023

Benoit Bazin

Chief Executive Officer

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9.1.4 INFORMATION ABOUT THE STATUTORY AUDITORS

Primary and alternate Statutory Auditors

As of December 31, 2022, the Statutory Auditors of the Company are:

- Deloitte & Associés, Tour Majunga, 6 Pl. de la Pyramide, 92800 Puteaux, represented by Frédéric Gourd and Bénédicte Margerin, appointed for a term of six years expiring at the 2028 General Meeting;
- KPMG Audit, a Department of KPMG SA, Tour Eqho, 2 avenue Gambetta, CS 60055 – 92066 Paris La Défense (France), represented by Pierre-Antoine Dufaud and Laurent Chillet. It was reappointed on June 7, 2018, for a period of six years, ending at the 2024 General Meeting.

Statutory Auditors' fees

FEES PAID BY THE GROUP TO THE STATUTORY AUDITORS AND MEMBERS OF THEIR NETWORKS FOR THE 2022 FISCAL YEAR

Statutory Auditors' fees and members of their networks for the 2022 fiscal year are presented in Note 14, p. 325 "fees paid to the Statutory Auditors" of the Consolidated Financial Statements, section 8.1 of this universal registration document.

9.1.5 ADDRESS

COMPAGNIE DE SAINT-GOBAIN

Head office

Tour Saint-Gobain
12, place de l'Iris
92400 Courbevoie

France

Tel.: + 33 (1) 88 54 00 00

www.saint-gobain.com

9.2 CSR INFORMATION

9.2.1 NOTE ON METHODOLOGY

The content of the CSR chapters of this document reflects broad consultation with internal and external stakeholders.

Internally, countries or clusters of countries' entities, Business Units of HPS and corporate support functions (human resources, responsible purchasing, financial communications, responsible development, EHS, etc.) have been asked to contribute, in order to enhance the report with examples.

Externally, stakeholders are regularly consulted on general policy or various specific aspects of Saint-Gobain's social responsibility. These consultations assist in developing the Group's CSR reporting and communications.

A – Reference bases

Saint-Gobain's main reportings include social, environmental, health and safety, and responsible purchasing indicators. Each of these reports and the associated indicators have been drawn up in accordance with the United Nations Global Compact and applicable French legislation.

In order to have a global reference framework, these standards are also based on indicators from the GRI (Global Reporting Initiative), SASB or other relevant standards depending on materiality issues.

The choice of indicators is defined in a logic of time stability and information availability. The description and calculation rules of indicators defined in the Group's governance documents are available for the teams of the different countries in French and in English.

B – Scope

a. The social reporting includes both qualitative and quantitative data on personnel and social issues

Compared to the scope of financial consolidation, the scope of consolidation of CSR data in this report is composed of fully consolidated companies. Newly consolidated companies are accounted for at the rate of their financial integration, with a maximum grace period of two years, and companies sold during the year are not taken into account. An entity integrated in the reporting before the maximum period remains integrated until its disposal. For 2022, the acquisitions of Kaycan Ltd and GCP Applied Technologies are excluded from reporting.

Social data from the Smart'R tool is collected either manually or automatically as follows:

Type of collection	Frequency	Scope	Content
Social data (IT interface)	Monthly	94.4%	Basic data on employees, hours and salary costs. Detail by employee
Social Data (questionnaire) Entities with over 500 employees (no IT interface)	Monthly	1.5%	Basic data on employees, hours and salary costs at the entity level
Social Data (questionnaire) Entities with under 500 employees (no IT interface)	Quarterly	4.1%	Workforce and hours worked by gender and socio-professional category at the entity level
Social reporting questionnaire	Annual	95.9%	Social dialog (e.g.: number of signed agreements in effect)
Human Rights* questionnaire	Annual	100%	Group's Values - Human Rights and fight against discrimination
Temporary work (questionnaire)	Monthly	100%	Temporary work data

* *The Human Rights questionnaire is completed every year by the human resources managers of the countries except for France where it is completed at the activities level. This makes it possible to collect qualitative indicators and to consult internal stakeholders when writing the report.*

Absenteeism and temporary employment indicators

Absenteeism data of some entities is sometimes difficult to collect in view of local contexts. Absenteeism rate is therefore calculated over a more limited scope than that of the annual social reporting campaign.

Some countries were excluded from the calculation of these indicators because of the lack of data for diverse reasons (no interface, priority application of local regulations over global definition, etc.). The following countries are concerned by this exclusion: the United Sates, Canada, Ireland and Switzerland, as well as non-interfaced entities with less than 500 employees.

Absenteeism rate is expressed as a percentage and corresponds to the total number of hours of absence over the total number of theoretical working hours. The reasons for absences taken into account in this indicator are absences for illness, absences relating to occupational accidents (including traveling to and from work), absences due to strikes and unjustified absences. Authorized or anticipated absences (e.g. annual leave, family events) are not included in this indicator.

The temporary employment rate is expressed as a percentage and corresponds to the total number of hours worked by temporary employees out of the total number of hours worked by Saint-Gobain's employees and temporary workers. Temporary employment does not include subcontractors and service providers.

Despite the entities excluded from the scope, the Group retains sufficient coverage in terms of headcount to enable the reporting of relevant indicators.

Training indicators

The scope is that of the Smart'R entities interfaced with payroll, i.e., 94.4% of the total workforce.

The indicator includes all employees trained during the year (including those who left during the year) reported on the number of employees at December 31, 2022.

b. Environmental, health, and safety reporting is organized around three questionnaires with different scopes and frequencies

The scope of consolidation for environmental, health, and safety data includes all fully consolidated companies. Newly consolidated companies are accounted for at the rate of their financial integration, with a maximum grace period of two years, and companies sold during the year are not taken into account. An entity included in the reporting before the maximum period remains included until it is disposed of. For 2022, the acquisitions of Kaycan Ltd and GCP Applied Technologies are excluded from reporting.

Some questionnaires being specific to one or several categories of establishments, the scope can be more or less wide.

- Safety: makes it possible to summarize all accidents and their severity, as well as the number of days lost from work. The questionnaire includes all the companies in the Group, which are grouped together by site, branch or office. For example, an entity that produces both plasterboard and plaster will report the data on a single grouping. In addition to Group employees, accidents relating to temporary workers and permanent subcontractors are also included.
- Industrial Hygiene & Health: allows for the results of internal audits, the follow-up of health programs, certifications, etc. to be included. The questionnaire concerns all group companies by site grouping node.
- Environment: enables the collection of all data relating to production, raw materials, energy, atmospheric emissions, water, etc. It concerns sites with a significant impact on the environment, such as industrial sites, mines and quarries.
- Financial data related to the environment, health, and safety (expenditure and investments) concern all the group's entities. They are tracked in the SIF, the Group's financial reporting tool since the 2013 fiscal year.

The safety and environment reporting data is entered directly in the EHS reporting system, called Gaïa, for all EHS entities. The various questionnaires sent, as well as their frequency, scope of reporting and content, are shown in the following table:

Questionnaire	Frequency	Scope	Content
Safety-on-Line	When needed	World, all categories of victims	Instant alert in case of work-related accident with or without work stoppage, fatal
Environment-on-Line	When needed	World, environmental events	Instant alert in case of major or significant environmental accidents
Safety	Monthly	World, all categories of employees	Accidents, numbers of days lost, worked hours…
General & Health	Annual	World (all entities except certain offices or attached sites)	Certification, audit results, monitoring of health programs….
Environment	Annual	"Environmental concerned scope" sites + mines and quarries (excluding sites connected to plants) + other sites at the region's initiative	Output, raw materials, energy, atmospheric emissions, water, waste, mitigation plan…

c. Responsible purchasing reporting

Responsible purchasing reporting is broken down into a "trading" and a "non-trading" scope. All suppliers in these categories which carry out transactions with Group companies are covered by the reporting.

The scope of "trade" suppliers is composed as follows:

- European partners: strategic suppliers with a European framework contract. These suppliers represent 43% of total purchases;
- main suppliers: annual transactions of over 3 million euros. These suppliers – mainly in France, Norway, Denmark, Sweden and the United Kingdom – account for more than 85% of the total purchases of trading companies;
- own brands: suppliers with whom Saint-Gobain Sourcing (India and China) develops products marketed under a Group brand. Limited share of the Group's total purchases.

The scope of "non-trading" suppliers considered in the indicators is made up of suppliers with annual purchases of more than 100,000 euros which have not been subject to an exemption (supplier owned by a State government or in a sole sourcing position) and which do not concern expenses related to sectors of activity not managed by the Purchasing function (banks, insurance, legal services).

This perimeter represents 82% of the total expenses of the Group's non-trading perimeter.

C – Data consolidation

a. Social reporting

Social reporting is mainly composed of Smart'R data. Depending on the type of data, the data is reassembled monthly or annually. The process of data consolidation for the social reporting involves three steps:

- The data is entered into the tool monthly by interface (94.4% of headcount) or manually via questionnaires for other entities (5.6% of headcount);
- The reporting is enriched by annual social data gathered by questionnaires such as the number of signed agreements in effect, etc.;
- Information is made more reliable by the Social Affairs Direction.

The environmental, health, and safety reporting is powered by the Gaïa tool. Each of the questionnaires is manually typed into the tool. Information may be reported monthly (e.g., safety) or annually (e.g., industrial hygiene, and health and environment). The process for consolidating EHS reporting data is similar to that for social reporting, where the data is entered and then verified and consolidated by the Group's EHS Department.

b. CO_2 emissions evaluation

To evaluate its CO_2 emissions, the Group applies the GHG protocol frame of reference.

- Scope 2 evaluation:

Scope 2 emissions evaluation calculations are carried out using a a market-based methodology. Following the GHG protocol, emission factors for electricity come from certified sources or suppliers' certificates or recognized bases (for example, the IEA).

For countries where data is not available, the emission factors used are defined by the environment team. In particular, for the majority of European countries, the IAE country emission factors have been used. In order to quantify the differences between the methodology used by Saint-Gobain and the one using only the AIB “residual mix” emission factors, a sensitivity analysis was carried out on the 2022 data and the difference observed represents less than 10% for Scope 2 and less than 1.5% for Scope 1+2.

c. Responsible purchasing reporting

Responsible purchasing reporting is powered by the Nazare tool by compiling document reviews and audits of trade and non-trade suppliers. The data is aggregated and reviewed by the Group's Purchasing teams.

D – The Group's objectives

The Group has set targets for 2025, based on 2010 results, and targets for 2030, based on 2017 results.

a. 2010-2025 iso-production objectives

The Group has set medium-term objectives, up to 2025, based on the 2010 results. They are established using comparable production for three-year periods. This means, for instance, that 2020-2022 emissions and consumption are recalculated based on 2019 production.

Based on the results from the baseline year for the three-year period, the Group updates every three years the scope for which environmental results are tracked for the following three years (2011-2013 / 2014-2016 / 2017-2019 / 2020-2022 / 2023-2025).

The published results for each scope therefore have a comparable scope for the three years within the period: sites closed or sold are removed from current year and baseline year, but no acquisition is taken into account. They are included in the subsequent period. The achievement of the iso-production objectives will therefore take into account the contribution of sites that opened or closed between 2010 and 2025 in one (or more) of the five periods considered.

Progress achieved over these five three-year periods (between 2010 and 2025) will be cumulated to assess whether the 2025 objectives have been achieved based on the 2010 results.

b. Targets 2017-2030, in absolute terms

The Group has also set objectives for 2030 based on the results of 2017, including Continental for targets related to CO_2 emissions, water withdrawals, avoided virgin raw materials and non-recovered waste. They are defined in absolute value, for the entire Group.

E – Limitations encountered

As the Group operates in a variety of countries, a doctrine detailing the calculation method for each indicator is distributed to the contributors every year for the various reporting systems. However, despite the doctrine, it is sometimes possible that the indicators are interpreted differently depending on the local context (national legislation or practices).

The Group remains vigilant with regard to distortions between countries that may arise in the understanding of indicators and may be led to exclude from the scope of reporting entities with excessive differences in understanding.

In addition, the reporting process means that some entities are not interfaced or have difficulty presenting the necessary data. The Group remains attentive to the reliability of the information and ensures that the coverage for each reporting is sufficient to present reliable indicators.

As payroll closing dates may differ from one country to the other, some social reporting indicators are only calculated on a 12-month rolling basis in order to smooth out any timing differences due to these different closing dates.

9.2.2 AUDITORS' OPINION

This is a free English translation of the report by one of the Statutory Auditors issued in French and is provided solely for the convenience of English-speaking readers. This report should be read in conjunction with, and construed in accordance with, French law and professional standards applicable in France.

Report of one of the Statutory Auditors, appointed as independent third party, on the verification of the consolidated non-financial performance statement

Year ended December 31, 2022

COMPAGNIE DE SAINT-GOBAIN
Tour Saint-Gobain
92400 Courbevoie cedex

In our capacity as Statutory Auditor of Compagnie de Saint-Gobain SA (hereinafter the "Company"), appointed as independent third party ("third party") and accredited by the French Accreditation Committee (Cofrac), under number 3-1886 (Cofrac Inspection Accreditation, scope available at www.cofrac.fr), we have conducted procedures to express a limited assurance conclusion on the historical information (observed or extrapolated) in the consolidated non-financial performance statement, prepared in accordance with the Company's procedures (hereinafter the "Guidelines"), for the year ended December 31, 2022 (hereinafter the "Information" and the "Statement", respectively), presented in the Group management report pursuant to the legal and regulatory provisions of Articles L. 225-102-1, R. 225-105 and R. 225-105-1 of the French Commercial Code (*code de commerce)*.

Conclusion

Based on our procedures as described in the section "Nature and scope of procedures" and the evidence we have obtained, no material misstatements have come to our attention that cause us to believe that the non-financial performance statement does not comply with the applicable regulatory provisions and that the Information, taken as a whole, is not fairly presented in accordance with the Guidelines.

Comments

Without qualifying the conclusion expressed above and in accordance with Article A. 225-3 of the French Commercial Code, we make the following comments:

- The Guidelines used for the preparation of information on energy and raw materials consumed could be specified in order to ensure homogeneous application.
- The "Absenteeism rate" indicator is based on local laws with regard to the hours to be included in the absences taken into account, leading to differences in approach.

Preparation of the non-financial performance statement

The absence of a generally accepted and commonly used reference framework or established practices on which to base the assessment and measurement of the Information enables the use of different but acceptable measurement techniques that may impact comparability between entities and over time.

Accordingly, the Information must be read and interpreted with reference to the Guidelines, summarised in the Statement and available on the Company's website.

Limits inherent in the preparation of the information relating to the Statement

As stated in the Declaration, the Information may be subject to uncertainty inherent to the state of scientific and economic knowledge and the quality of external data used.

Some information is sensitive to the choice of methodology and the assumptions or estimates used for its preparation and presented in the Statement.

Responsibility of the Company

Management is responsible for:

- selecting or determining the appropriate criteria for the preparation of the Information;
- preparing a Statement pursuant to legal and regulatory provisions, including a presentation of the business model, a description of the main non-financial risks, a presentation of the policies implemented with respect to these risks as well as the outcomes of these policies, including key performance indicators and the information set-out in Article 8 of Regulation (EU) 2020/852 (Green taxonomy);
- implementing such internal control as it determines is necessary to enable the preparation of Information that is free from material misstatement, whether due to fraud or error.

The Statement has been prepared by applying the Company's Guidelines as referred to above.

Responsibility of the Statutory Auditor appointed as independent third party

Based on our work, our responsibility is to express a limited assurance conclusion on:

- the compliance of the Statement with the requirements of Article R. 225-105 of the French Commercial Code;
- the fairness of the information provided pursuant to part 3 of sections I and II of Article R. 225-105 of the French Commercial Code, i.e., the outcomes of policies, including key performance indicators, and measures relating to the main risks, hereinafter the "Information".

As it is our responsibility to issue an independent conclusion on the information prepared by management, we are not authorised to participate in the preparation of the Information, as this could compromise our independence.

It is not our responsibility to provide a conclusion on:

- the Company's compliance with other applicable legal and regulatory provisions (particularly with regard to the information set-out in Article 8 of Regulation (EU) 2020/852 (Green taxonomy), the duty of vigilance and the fight against corruption and tax evasion);
- the compliance of products and services with the applicable regulations.

Applicable regulatory provisions and professional guidance

We performed the work described below in accordance with our audit verification program in application of Articles A. 225-1 et seq. of the French Commercial Code, the professional guidance issued by the French Institute of Statutory Auditors (*Compagnie Nationale des Commissaires aux Comptes*) relating to this engagement and with the international standard ISAE 3000 (revised - Assurance engagements other than audits or reviews of historical financial information).

Independence and quality control

Our independence is defined by Article L. 822-11-3 of the French Commercial Code and French Code of Ethics for Statutory Auditors (*Code de déontologie*). In addition, we have implemented a system of quality control including documented policies and procedures aimed at ensuring compliance with applicable legal and regulatory requirements, ethical requirements and the professional guidance issued by the French Institute of Statutory Auditors (*Compagnie Nationale des Commissaires aux Comptes*) relating to this engagement.

Means and resources

Our work engaged the skills of ten people between September 2022 and March 2023 and took a total of fifteen weeks.

To assist us in conducting our work, we referred to our corporate social responsibility and sustainable development experts. We conducted around ten interviews with people responsible for preparing the Statement.

This work involved the use of information and communication technologies allowing the work and interviews to be carried out remotely, without hindering the good execution of the verification process.

Nature and scope of procedures

We planned and performed our work taking account of the risk of material misstatement of the Information.

We consider that the procedures conducted in exercising our professional judgement enable us to express a limited assurance conclusion:

- We familiarized ourselves with the activities of all companies in the consolidation scope and the description of the principal risks.
- We assessed the suitability of the Guidelines with respect to their relevance, completeness, reliability, neutrality and clarity, taking into account, where appropriate, best practices within the sector;
- We verified that the Statement covers each category of information stipulated in section III of Article L. 225-102-1 governing social and environmental affairs, respect for human rights and the fight against corruption and tax evasion;
- We verified that the Statement provides the information required under Article R.225-105 II of the French Commercial Code where relevant with respect to the principal risks, and includes, where applicable, an explanation for the absence of the information required under Article L.225-102-1 III, paragraph 2 of the French Commercial Code;
- We verified that the Statement presents the business model and a description of the principal risks associated with the activities of all the consolidated entities, including where relevant and proportionate, the risks associated with their business relationships, their products or services, as well as their policies, measures and the outcomes thereof, including key performance indicators associated to the principal risks;
- We referred to documentary sources and conducted interviews to:
  - assess the process used to identify and confirm the principal risks as well as the consistency of the outcomes, including the key performance indicators used, with respect to the principal risks and the policies presented;
  - corroborate the qualitative information (measures and outcomes) that we considered to be the most important; [(1)] for certain risks or information, (for instance: supply chains, skills and talent management, etc.), our work was carried out on the consolidating entity, while for other risks, our work was carried out on the consolidating entity and on a selection of entities.

(1) ***Qualitative review of the following social information on skills and talent management****: gender equality and gender pay gaps in the organization; proportion of shares held by employees; percentage of new managers trained in the Adhere, Comply and ACT programs.*
Qualitative review of the following information on energy efficiency: *calculation of the "sustainable share" ratio of Solution for Growth.*
Qualitative review of information on the management of the following resources*: resource management including biodiversity action plans and land use; actions to limit water withdrawals, particularly in areas of water stress; circular economy strategy and resource management.*
Qualitative review of information on responsible management of the following supply chain: *amount of purchases covered by the signature of the charter; breakdown of suppliers by CSR performance level; results of on-site audits of own-brand suppliers assessed in terms of CSR; share of "risky" purchases having been assessed in terms of CSR.*

- We verified that the Statement covers the consolidated scope, i.e., all companies within the consolidation scope in accordance with Article L. 233-16, with the limits specified in the Statement;
- We obtained an understanding of internal control and risk management procedures implemented by the Company and assessed the data collection process aimed at ensuring the completeness and fairness of the Information;
- For the key performance indicators and other quantitative outcomes [2] that we considered to be the most important, we implemented:
  - analytical procedures that consisted in verifying the correct consolidation of collected data as well as the consistency of changes thereto;
  - substantive tests, on a sample basis and using other selection methods, that consisted in verifying the proper application of definitions and procedures and reconciling data with supporting documents. These procedures were conducted for a selection of contributing entities [3] and covered between 20.4% and 31.9% of the consolidated data selected for these tests.
- We assessed the overall consistency of the Statement in relation to our knowledge of the entire Company.

The procedures conducted in a limited assurance review are substantially less in scope than those required to issue a reasonable assurance opinion in accordance with the professional guidelines of the French National Institute of Statutory Auditors (*Compagnie Nationale des Commissaires aux Comptes*); a higher level of assurance would have required us to carry out more extensive procedures.

Paris-La Défense, February 23, 2023

One of the Statutory Auditors,

Deloitte & Associés

Frédéric Gourd	Olivier Jan
Partner, Audit	Partner, Sustainability Services

(2) ***Quantitative Environment and Safety reviews:*** *Net Salable production; CO_2 emissions (scope 1 and 2); energy consumption by type; percentage of non-recovered waste; consumption of virgin raw materials and recycled raw materials (internal and external); total quantity of non-recovered waste and breakdown by type (hazardous waste, non-hazardous waste); frequency rates relating to accidents with and without lost time (employees, temporary workers and permanent subcontractors).*
Quantitative Human Resources reviews*: absenteeism rate; total workforce and breakdown of employees by gender; hires/departures and breakdown by gender; percentage of employees who received training during the year.*

(3) ***Entities Tested (Environmental, Safety, Human Resources)****: Cebrace-Cristal Plano (Jacarei, BR)), Certainteed Insulation (Athens, GA (USA)), Certainteed Gypsum, Inc.; (Carrollton, KY, Moundsville, WV, Nashville, AR (USA)), Continental BP (Buchanan, NY (USA)), Isover Iberica (Pomegranate Sugarcane, (SP)), Leca Denmark (Hinge, DN)), Rigips (Brieselang and Scholven (GER)), SG Adfors CZ (Litomysl Glass Mat, Litomysl CP, Litomysl Vetrotex, (CZ)), SG America – Adfors (Xicohtencatl Vetrotex (MX)), SG Innovation Materials (Changxing, (CN)), SG Isover G+H AG (Bergisch Gladbach (GER)), SG Glass India (Sriperumbudur (IN)), SG Glass Germany (Torgau – Flachglass (GER)), SG Glass Poland (Dabrowa Gornicza (PL)), SGCP Hungary Gypsum (Matra (HN)), SG Mexico Glass (Cuautla (MX)), SG Pam/Usines-H (Pont A Mousson (FR)), SGCP Polska (Gliwice, PL), SGCP UK Gypsum (East Leake Works (UK)).*
Tested Entities (Security, Human Resources)*: CDL (St Brieuc site (FR)), La Plateforme (Paris (FR)), Optimera AS (Oslo (NR)), SG Distribution Brazil (Telhanorte Lojas (BR)), SG Mexico Secret (Cuautla (MX)).*

9.3 CROSS-REFERENCE TABLES

9.3.1 CROSS-REFERENCE TABLE FOR THE UNIVERSAL REGISTRATION DOCUMENT

For the convenience of readers of this Universal Registration Document, the following table provides an index to the main disclosures required by Annexes 1 and 2 of the EU Regulation No. 2019/980, dated March 14, 2019, supplementing provisions of EU Regulation 2017/1129, dated June 14, 2017.

Contents of Annexes 1 and 2 of the EU Regulation No. 2019/980, dated March 14, 2019, supplementing provisions of EU Regulation 2017/1129, dated June 14, 2017	Sections
1 Persons responsible, third party information, experts' reports and competent authority approval	**9.1.3**
2 Statutory Auditors	**9.1.4**
3 Risk factors	
3.1 Risks specific to the Group and its business sector	6.1.1
3.2 Risks related to the Group's structures	6.1.2
3.3 Financial risks	6.1.3
3.4 Legal risks	6.1.4
4 Information about the issuer	7.2.1 and 9.1
5 Business overview	
5.1 Principal activities	1.4
5.2 Principal markets	1.1.2 and 2.1.2
5.3 Important events in the development of business	1.3
5.4 Strategy and objectives	2. and 4.1.7
5.5 Dependence on patents or licenses, industrial, commercial or financial contracts or new manufacturing processes	6.1.1 see Intellectual property risks
5.6 Competitive position	1.4.3
5.7 Investments	
5.7.1 Material investments made	1.3.1, 1.4.1, 2.3.7, 4.1.5, 4.2.2, 8.1 (NOTE 3, NOTE 4 and NOTE 5) and 8.5.1
5.7.2 Material investments in progress	2.3.7, 4.1.5, 4.1.7 and 4.2.2
5.7.3 Information related to the joint ventures and undertakings in which the issuer holds a proportion of the capital likely to have a significant effect on the assessment of its own assets and liabilities, financial position or profits and losses	8.1 (NOTE 4), 8.3 (NOTE 9, NOTE 10 and NOTE 16)
5.7.4 Environmental issues that may affect Compagnie de Saint-Gobain's use of its property, plant and equipment	3.1, 4.2.2 and 6.1.1
6 Organizational structure	
6.1 Brief description of the Group	1.1.1, 1.1.2, 1.1.3, 7.1.4, 7.1.5 and 7.1.6
6.2 List of significant subsidiaries	8.1 (NOTE 16) and 8.3 (NOTE 9 and NOTE 10)
7 Operating and financial review	
7.1 Financial condition	1.1 , 4.1 and 4.2
7.2 Operating income	4.1
8 Liquidity and capital resources	
8.1 Information on capital resources	8.1 and 8.3 , 8.1 (NOTE 11), 8.3 (NOTE 12) and 8.5
8.2 Source, amounts and description of cash flows	8.1 (Consolidated statement of cash flows)
8.3 Information on borrowing requirements and funding structure	7.2.4, 8.1 (NOTE 10 and NOTE 13) and 8.3 (NOTE 13 and NOTE 15) and 8.5
8.4 Restriction on the use of capital	N/A
8.5 Anticipated sources of fund needed to fulfill commitments referred to in 5.7.2	8.1 (NOTE 10)
9 Regulatory environment	**3.1.5 and 6.1**
10 Trend information	**4.1.7**
11 Profit forecasts or estimates	**N/A**
12 Administrative, management and supervisory bodies and General Management	**1.5.2 and 5.1**

Contents of Annexes 1 and 2 of the EU Regulation No. 2019/980, dated March 14, 2019, supplementing provisions of EU Regulation 2017/1129, dated June 14, 2017	Sections
13 Remuneration and benefits	**5.2 and 8.1 (NOTE 6)**
14 Board and management practices	**5.1**
15 Employees	
15.1 Number of employees and breakdown by main category	1.1.3, 1.2.3, 8.1 (NOTE 6) and 8.3 (NOTE 19)
15.2 Shareholding in the issuer's capital and stock options	5.2.2, 5.2.4, 7.1.6, 8.1 (NOTE 6) and 8.3 (NOTE 12)
15.3 Arrangements for involving the employees in the capital of the issuer	5.2.4, 7.1.6, 8.1 (NOTE 6) and 8.3 (NOTE 12)
16 Major shareholders	**7.1.4**
17 Related party transactions	**8.1 (NOTE 8) and 8.3 (NOTE 16)**
18 Financial information concerning the issuer's assets and liabilities, financial position and profit and losses	
18.1 Historical financial information	8.
18.2 Interim and other financial information	N/A
18.3 Auditing of the historical annual financial information	8.2 and 8.4
18.4 *Pro forma* financial information	N/A
18.5 Dividend policy	7.4
18.6 Legal and arbitration proceedings	6.1.4, 8.1 (NOTE 9) and 8.3 (NOTE 20)
18.7 Significant change in the financial position	N/A
19 Additional information	
19.1 Share capital	
19.1.1 Amount of issued capital	
(a) Number of shares authorized	7.1.1, 7.1.2 and 8.3 (NOTE 12)
(b) Number of shares issued and fully paid and issued but not fully paid	7.1.1, 9.1.1 and 8.3 (NOTE 12)
(c) Par value per share	8.3 (NOTE 12)
(d) Number of shares outstanding at the beginning and end of the year	7.1.1, 9.1.1 and 8.3 (NOTE 12)
19.1.2 Shares not representing share capital	7.1.1
19.1.3 Treasury shares	7.1.3
19.1.4 Convertible securities, exchangeable securities or securities with warrants	N/A
19.1.5 Information on the conditions attached to any acquisition rights and/or obligations relating to the subscribed but unissued capital, or on any undertaking to increase the capital	5.2.4 and 7.1.2
19.1.6 Capital of any member of the Group which is under option or has agreed conditionally or unconditionally to be put under option	N/A
19.1.7 History of the share capital	7.1.1
19.2 Bylaws	
19.2.1 Corporate purpose	9.1.1
19.2.2 Rights, preference and restrictions attached to each class of existing shares	9.1.1
19.2.3 Provisions of the bylaws that would have an effect of delaying, deferring or preventing a change of control	9.1.1
20 Material contracts	**N/A**
21 Documents available	**9.1.2**

Incorporation by reference

In accordance with Article 19 of Regulation (EU) No. 2017/1129 of the European Parliament and of the Council of June 17, 2017, this Universal Registration Document incorporates the following information by

reference which the reader is invited to refer to:

- for the fiscal year ended December 31, 2021: the management report, the consolidated financial statements, the annual financial statements and the related reports of the Statutory Auditors, included in the Universal Registration Document filed with the French Financial Markets Authority (*Autorité des marchés financiers* – AMF) on March 22, 2022 under number D.22-0132;
- for the fiscal year ended December 31, 2020: the management report, the consolidated financial statements, the annual financial statements and the related reports of the Statutory Auditors, included in the Universal Registration Document filed with the French Financial Markets Authority (*Autorité des marchés financiers* – AMF) on March 18, 2021 under number D.21-0152.

The information included in these two Universal Registration Documents, other than that referred to above, is replaced or updated by the information includedin this Universal Registration Document. These two Universal Registration Documents are available at the Company's head office and on its website www.Saint-Gobain.com.

9.3.2 CROSS-REFERENCE TABLE FOR THE ANNUAL FINANCIAL REPORT

For the convenience of readers of the Annual Financial Report, the following table provides an index to the main disclosures required by Article L. 451-1-2 of the French Monetary and Financial Code.

Information required in the Annual Financial Report	Sections
Statement by the person responsible for the Annual Financial Report	**9.1.3**
Management report	
Article L.225-100-1 of the French Commercial Code	
analysis of the Company's operations, results and financial position	1.1.1, 1.1.2, 1.2.3, 2. , 4.1 , and 4.2
key financial and non-financial performance indicators	1.1 , 1.2.3, 4.1 and 4.2
main risks and uncertainties	6.1
indications of the financial risks associated with the effects of climate change and the measures taken to reduce them	2.1.1, 3.3 and 3.4
main characteristics of the internal control and risk management procedures relating to the preparation and handling of accounting and financial information	6.2
Article L.225-102 of the French Commercial Code:	
employee shareholding	5.2.4 and 7.1.6
Article L.225-102-1 of the French Commercial Code:	
declaration of non-financial performance	9.3.3
Article L.225-211 of the French Commercial Code:	
company buyback of treasury shares	7.1.3 and 8.1 (NOTE 11)
Article L.225-37 et seq. of the French Commercial Code *Report of the Board of Directors on corporate governance*	
composition and functioning of the Board of Directors	5.1.1 and 5.1.2
compensation of the management and governing bodies	5.2
General Management procedures and restrictions set by the Board of Directors on the powers of Executive corporate officers	5.1.2
adherence to a code of corporate governance	5.1
aspects that may have an effect in the event of a public offering	7.1.9
special procedure for shareholders' participation in the Shareholders' Meeting	9.1.1
summary table of the Delegations currently valid granted by the General Shareholders' Meeting to the Board of Directors with regard to an increase in capital and description of the use made of these delegations during the fiscal year	7.1.2
agreements and regulated commitments	5.1.1
description of the procedure under which it is regularly assesses whether agreements relating to current operations and entered into under normal conditions meet these conditions and description of its implementation during the fiscal year	5.1.1
Statutory Auditors' special report on related party agreements	5.5
Statutory Auditors' report on the Board of Directors' report on corporate governance	5.4
Financial statements	
Annual financial statements	8.3
Statutory Auditors' report on the annual financial statements	8.4
Consolidated financial statements	8.1
Statutory Auditors' report on the consolidated financial statements	8.2
Statutory Auditors' fees	9.1.4

9.3.3 CROSS-REFERENCE TABLE FOR SOCIAL AND ENVIRONMENTAL INFORMATION: DECLARATION OF NON-FINANCIAL PERFORMANCE

Declaration of non-financial performance (DPEF), in compliance with the Order of July 19, 2017 (Order No. 2017-1180) which transposes the Directive 2014/95/EU of the European Parliament and of the Council of October 22, 2014.

The Declaration includes the presentation of the Group's business model and the analysis of its CSR risks and opportunities (risks, associated policies, action plans and key indicators).

The business model

Saint-Gobain's business model can be found in section 1.2.3, p. 20. It is the result of a consultation with the Group's internal stakeholders and it takes into account Saint-Gobain's new organization, effective as of January 1, 2019. It presents the Group's sustainable growth generation process through its key resources and its main pillars of value creation.

CSR risk and opportunity analysis

Saint-Gobain has conducted its study of the risks and opportunities related to corporate social responsibility (CSR) within the framework of the priority challenges presented in the materiality analysis (see section 2.1.3, p. 54).

As a result, a universe of the 15 most important CSR risks and opportunities for Saint-Gobain was built by factoring in the Group's strategy, its objectives and operations as well as its main environmental, social and societal challenges. In an effort to harmonize the vocabulary and the vision on these challenges, a table presenting a risk or an opportunity's definition, as well as the potential impacts for stakeholders on the one hand and for Saint-Gobain on the other hand, has been provided.

These risks and opportunities were then rated according to stakeholders' expectations in order to combine internal and external visions of the organization, according to the methodology shared with internal audit and control. While the risk assessment methodology follows the process developed by the internal control, the value scales have been adjusted according to non-financial impacts and to a long-term time frame. The interviews were conducted from May to September 2018 with two assessment criteria: impact and criticality. Members of the Executive Committee participated in these evaluations.

Nine CSR risks and opportunities were identified as the most important:

- Diversity within the organization and inclusion;
- Energy efficiency and carbon intensity of operations;
- Business ethics;
- Management of skills and talents;
- Responsible supply chain management;
- Integration of recycled materials;
- Energy and carbon performance of products and services;
- Health and safety at work;
- Product safety.

The identification of these risks is a key step in the construction of the Group's CSR roadmap (see section 2.1.3, p. 55).

Risk or opportunity identified	Management of the risk or opportunity	Section
The Principles of Conduct and Action constitute the Group's code of ethics. All of Saint-Gobain's policies and commitments refer to them.		
Diversity within the organization and inclusion	**Engagement:**	
	Human Resources Policy	III – 3.2.2.A
	Human Rights Policy	III – 3.2.1.A
	Actions:	
	OPEN program	III – 3.2.3.D
	Human rights program (non-discrimination)	III – 3.2.1.A
	Quantitative objectives:	
	Diversity index	IV – 4.2.2
	30% of women managers in 2025	IV – 4.2.2
	25% of women senior managers in 2025	IV – 4.2.2
	30% of women in the Executive Committee of the Group in 2025	IV – 4.2.2
	30% of women on average in the Executive Committees of the Business Unit in 2025	IV – 4.2.2
	Indicators:	
	25.7% of women in the 19,452 highest positions or 11.6% of the Group's positions	IV – 4.2.2
	Other diversity indicators	IV – 4.2.2
	Other non-discrimination indicators	
Energy efficiency and carbon intensity of operations	**Commitment:**	
	EHS charter and policy	III – 3.1.3.A
	Energy policy - climate	III – 3.1.3.D
	Net zero carbon commitment before 2050	III – 3.3.1.B
	Actions:	
	WCM program	III -3.1.3.B
	Energy – climate network	III – 3.1.3.D
	Transversal programs including internal carbon pricing, R&D programs and scope 3 control	III – 3.3.1.B
	Quantitative objectives:	
	Reduce carbon emissions by 20% by 2025 (2010 basis)	IV – 4.2.2
	Reduce energy consumption by 15% by 2025 (2010 basis)	IV – 4.2.2
	Reduce carbon emissions by 33% (scope 1 and 2) in absolute terms between 2017 and 2030	IV – 4.2.2
	Reduce carbon emissions by 16% (scope 3) in absolute terms between 2017 and 2030	IV – 4.2.2
	Indicators:	
	GHG emissions indicators	IV – 4.2.2
	Energy indicators	IV – 4.2.2
Business ethics *This risk includes human rights and the fight against corruption*	**Commitment:**	
	Code of ethics: the Principles of Conduct and Action	I – 1.2.2.B
	Actions:	
	Ethics and compliance program	III – 3.1.5.B
	Quantitative objectives:	
	Train 100% of new managers on the Adhere, Comply and Act program during their first year of integration	IV – 4.2.2
	Indicators:	
	Group values Indicators	IV – 4.2.2
	Non-discrimination indicators	IV – 4.2.2
Tax evasion The Group acts in compliance with the tax laws of the countries in which it operates and fulfills its tax reporting and payment obligations in time (section 3.1.5, p. 88). Saint-Gobain has therefore not established structures whose purpose is tax evasion and applies tax laws and regulations with honesty and integrity.		
Management of skills and talents	**Commitment:**	
	Human Resources policy	III – 3.2.2
	Actions:	
	WCM program	III – 3.3.1.B
	OPEN program	III – 3.2.3.D
	SG Talents program	III – 3.2.3.D
	Training program	III – 3.2.3.C
	Indicators:	
	Percentage of employees trained	IV – 4.2.2
	Training indicators in talent development	IV – 4.2.2

Risk or opportunity identified	Management of the risk or opportunity	Section
Responsible supply chain management	**Commitment:** Code of ethics: the Principles of Conduct and Action Timber policy High-risk Raw Material minerals policy **Actions:** Responsible purchasing program **Quantitative objectives:** Responsible purchasing program **Indicators:** Responsible Purchasing Indicators	 I – 1.2.2.B III – 3.1.2.B III – 3.1.2.B III – 3.1.2.B III – 3.1.2.B IV – 4.2.2
Integration of recycled materials into products	**Commitment:** EHS charter and policy Sustainable Resource Management policy **Actions:** Obtain a maximum recycled content Circular economy **Quantitative objectives:** Increase avoided withdrawals of natural raw materials by 30% (between 2017 and 2030) **Indicators:** Waste and raw materials	 III – 3.1.3.A III – 3.1.3.D III – 3.1.3.D III – 3.4.1 IV – 4.2.2 IV – 4.2.2
Energy and carbon efficiency of products and services	**Commitment:** EHS charter and policy Energy and Climate policy **Actions:** "Solutions for Growth" program: design sustainable, comfortable and high-performance solutions including product transparency and evaluation and improvement of the sustainable performance of products Seize the opportunities linked to the transition to a low-carbon economy Actions that support strong and low-carbon economic growth Train clients locally, inform the end user **Indicators:** Provision of EPDs Carbon avoidance linked to solutions	 III – 3.1.3.A III – 3.1.3.D III – 3.1.4.C III – 3.3.2.B III – 3.1.4.C III – 3.1.4.A III – 3.3.2.C III – 3.3.2.C
Health and safety at work	**Commitment:** EHS charter and policy Health policy **Actions:** WCM program Safety at work program Health at work program CARE program Mental WellBeing program **Quantitative objectives:** Maintain a TRAR below 2 **Indicators:** HICE (Health Indicator for Occupational Exposure) Health and Safety indicators	 III – 3.1.3.A III – 3.2.3.B III – 3.1.3.B III – 3.1.3.C III – 3.1.3.C III – 3.2.3.A III – 3.2.3.B III – 3.1.3.C III – 3.1.3.C IV – 4.2.2

Risk or opportunity identified	Management of the risk or opportunity	Section
Product safety	**Commitment:**	
	EHS charter and policy	III – 3.1.3.A
	Health policy	III – 3.2.3.B
	Actions:	
	Innovation program, including the EHS check-list	III – 3.1.4.A
	WCM program	III – 3.1.3.B
	Product transparency	III – 3.3.2.C
	Program to assess the sustainable performance of products	III – 3.3.2.C
	Management of chemical risks	III – 3.1.3.C
	Indicators:	
	Deployment of chemical risk management tools Complementary work on the possibility of defining a performance indicator on product safety is being considered.	III – 3.1.3.C
The themes "food waste", "fight against food insecurity", "respect for animal welfare", and "responsible, fair and sustainable food" do not represent main non-financial risks for Saint-Gobain and are not included in the Declaration of Non-Financial Performance.		

9.3.4 CONCORDANCE TABLE FOR SOCIAL AND ENVIRONMENTAL INFORMATION: VIGILANCE PLAN

As part of compliance with law No. 2017-399 of March 27, 2017 on the duty of care of parent companies and ordering companies.

Saint-Gobain's vigilance plan consists of two separate but complementary plans:
- the vigilance plan for the Group's operations (holding company, subsidiaries, joint ventures and on-site subcontractors);
- the vigilance plan for purchasing, including tier 1 suppliers and subcontractors outside the Group's sites.

Vigilance plan for the Group's operations	Section
Mapping of risks related to operations and procedures for assessing the situation in relation to the risk map	
Identification, analysis and prioritization of risks, prevention of serious violations of human rights and fundamental freedoms	III – 3.2.1.A
Identification, analysis and prioritization of risks, prevention of serious harm to the health and safety of people and the environment	III – 3.1.3.A
Appropriate actions to mitigate risks or prevent serious harm	
For the respect of human rights	III – 3.1.5; III – 3.2.1.A
For the health and safety of people	III – 3.1.3.C
For the environment	III – 3.1.3.D
A system for monitoring the measures implemented and evaluating their effectiveness	
Annual reporting	IV – 4.2.2
A mechanism for alerting and collecting reports	III – 3.2.1.C

Vigilance plan for the Group's purchasing	Section
Mapping of risks related to operations and procedures for assessing the situation in relation to the risk map	
Identification, analysis and prioritization of risks, prevention of serious violations of human rights and fundamental freedoms, health and safety of people, and the environment	III – 3.1.2.B
Appropriate actions to mitigate risks or prevent serious harm	
Trade Responsible Purchasing program	III – 3.1.2.B
Non-trade Responsible Purchasing program	III – 3.1.2.B
A system for monitoring the measures implemented and evaluating their effectiveness	
Annual reporting	IV – 4.2.2
A mechanism for alerting and collecting reports	III – 3.2.1.C

9.3.5 CLASSIFICATION OF ACTIVITIES ACCORDING TO THE EUROPEAN REGULATORY FRAMEWORK ALLOWING THE DEFINITION OF ENVIRONMENTAL SUSTAINABLE ECONOMIC ACTIVITIES

Classification of activities

In application of the European Regulation 2020/852 Taxonomy Regulation in effect since July 2020, with delegated acts for the first two objectives concerning mitigation and adaptation to climate change (Taxonomy Climate Delegated Act (EU) 2021/2139), as well as with the delegated act in Article 8 of Regulation (EU) 2020/852 and its annexes on the reporting conditions (Disclosures Delegated Act), Saint-Gobain has carried out an analysis of the eligibility criteria used to classify its sustainable economic activities with regard to the new reporting and disclosure requirements on the relevant contribution to the turnover, investments and operating expenses (CapEx and OpEx).

Eligibility of activities

For the 2022 financial year, Saint-Gobain's activities considered eligible correspond to the definitions of the following activities listed in the delegated acts dedicated to the objectives of climate change mitigation and adaptation to climate change:

- **3.5. Manufacture of energy-efficient equipment for the buildings**. Activity 3.5 directly covers several Saint-Gobain product categories, including insulation, glazing for external façades (windows), plasterboard and mortars that are part of an insulation system;
- **3.6. Manufacture of other low carbon technologies**. Activity 3.6 concerns Saint-Gobain products and solutions contributing to substantial reduction (compared to the most efficient alternative on the market) of GHG emissions generated by the product or by the manufacturing process to which they contribute. This especially includes activities in ceramics, mobility, construction chemicals, or the construction industry. Some building material systems that promote lightweight construction are also included.

Alignment of activities

For all so-called eligible activities, Saint-Gobain has identified the applicable technical criteria as well as the corresponding performance thresholds:

- for the activities referenced in category 3.5, technical criteria and corresponding performance thresholds have been defined by the regulation;
- for the activities referenced in category 3.6, in the absence of technical criteria and performance thresholds defined by the regulation, these have been identified and assessed by comparing the benefits and performance with standard products or solutions on the market as required by regulations. Saint-Gobain relied in particular on life cycle analyzes in accordance with reference standards (ISO, PEF) and assessed the thresholds to define a substantial reduction according to sectors and product families.

Saint-Gobain's ambition is to offer solutions that combine performance and sustainability in order to meet the expectations of its stakeholders, especially its customers, and to enable the acceleration towards a more sustainable and low-carbon economy (see section 3.1.4.C, p. 85). A standard method for evaluating the benefits of these solutions was defined in 2020 and deployed in the organization. The benefits in terms of contributing to the fight against climate change are integrated into the approach. This standard profit measurement method has been audited by an independent third party and published on the Group's website. Saint-Gobain relied on this method to measure the alignment of product lines for the activities referenced in category 3.6.

This exercise requires carrying out complex studies on the comparative performance of products and solutions, some of which, given their complexity, will have to be continued during 2023.

The work carried out also included verification of compliance with the minimum guarantees (see section 3.1.5 Ethics and compliance and table 9.3.4 on the Vigilance plan, p. 86 and p. 388), as well as the analysis of compliance with the criteria of “Do not significant harm” (DNSH) based on its existing policies and its risk management system. More specifically for DNSHs:

- adaptation to climate change, see section 3.1.3.A.b. Environmental risks, p. 76, and section 3.3 Contributing to a decarbonized world and 3.3.2.B Managing risks and opportunities, p. 100 and p. 109;
- water policies: see section 3.1.3.D.b Water management, p. 82;
- pollution, see section 3.1.3.B Chemical risk management, p. 77, section 3.1.3.D.a. Energy and air emissions, p.81, and The fight against air pollution, p. 81;
- circular economy, see section 3.1.3.D.c. Resource management and section 3.4 Contributing to a leaner economy, p. 83 and p. 115;
- Biodiversity, see section 3.1.3.D.d Biodiversity and land use, p. 84.

Non-eligible activities

Saint-Gobain’s sustainable solutions revenue (see section 3.1.4.C, p. 85) includes activities not assessed in the context of compliance with European Regulation 2020/852 Taxonomy, such as distribution activities, impacts and benefits not yet integrated into the regulations, such as resources and the circular economy or finally the benefits related to health, safety and comforts, which will potentially be eligible for the social taxonomy.

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Calculation of taxonomic indicators

The reporting scope concerns all Saint-Gobain consolidated entities at the end of 2022.

Turnover (TO)

In the denominator, turnover corresponds to the turnover presented in the consolidated financial statement (chapter 8).

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
				Substantial contribution criteria						DNSH criteria										
Economic activities	Codes	Absolute R&D OPEX	Proportion of R&D OPEX	Climate change mitigation	Climate change adaptation	Water and marine resources	Circular economy	Pollution	Biodiversity and ecosystems	Climate change mitigation	Climate change adaptation	Water and marine resources	Circular economy	Pollution	Biodiversity and ecosystems	Minimum safeguards	Taxonomy-aligned proportion of R&D OPEX year N	Taxonomy-aligned proportion of R&D OPEX year N-1	Category (enabling)	Category (transitional)**
		Currency	%	%	%	%	%	%	%	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	%	E/T	
Manufacturing of energy efficiency equipment for buildings	3.5	61	12%	12%	12%					Y	Y	Y	Y	Y	Y	Y	11.8%		Y	N
Manufacturing of other low carbon technologies	3.6	28	5%	5%	5%					Y	Y	Y	Y	Y	Y	Y	4.9%		Y	N
R&D OPEX of taxonomy aligned activities (A.1.)		89	17%	17%	17%												17.2%			
Manufacturing of energy efficiency equipment for buildings	3.5	3	0%	0%	0%														Y	N
Manufacturing of other low carbon technologies	3.6	16	3%	3%	3%														Y	N
R&D OPEX of taxonomy eligible but not taxonomy aligned activities (A.2.)		18	4%	4%	4%															
Total A (A.1. + A.2.)		107	21%	21%	21%												20.7%			
B. Taxonomy non-eligible activities																				
R&D OPEX of taxonomy non eligible activities (B)		410	79%																	
Total A + B		**517**	**100%**																	

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ADDITIONAL INFORMATION AND CROSS-REFERENCE TABLES 9
Cross-reference tables

Capital Expenditures (CapEx)

In the denominator, the CapEx corresponds to the gross increase in tangible and intangible assets declared in the financial statements, including when resulting from entry into the scope of a subsidiary within the consolidated financial statements (see note 7 to the consolidated financial statements). The portion relating to entries in the scope is presented in note 4.2.

The CapEx categories considered in the numerator as eligible (or aligned) are as follows:

- CapEx linked to activities whose turnover is eligible, and detailing the CAPEX linked to activities whose turnover is aligned;
- CapEx linked to individual measures enabling the reduction of CO_2 emissions.

Since 2021, a financial reporting category has been dedicated for monitoring investments linked to CO_2 emissions reduction, in line with the Group's CO_2 roadmap to contribute to carbon neutrality by 2050.

										11	12	13	14	15	16	17	18	19	20	21
				Substantial contribution criteria						DNSH criteria										
		Absolute CAPEX	Proportion of CAPEX	Climate change mitigation	Climate change adaptation	Water and marine resources	Circular economy	Pollution	Biodiversity and ecosystems	Climate change mitigation	Climate change adaptation	Water and marine resources	Circular economy	Pollution	Biodiversity and ecosystems	Minimum safeguards	Taxonomy-aligned proportion of CAPEX year N	Taxonomy-aligned proportion of CAPEX year N-1	Category (enabling)	Category (transitional)**
Economic activities	**Codes**	**Currency**	**%**	**%**	**%**	**%**	**%**	**%**	**%**	**Y/N**	**Y/N**	**Y/N**	**Y/N**	**Y/N**	**Y/N**	**Y/N**	**%**	**%**	**E/T**	
Manufacturing of energy efficiency equipment for buildings	3.5	509	9%	9%	9%					Y	Y	Y	Y	Y	Y	Y	8.9%		Y	N
Manufacturing of other low carbon technologies	3.6	1,495	26%	26%	26%					Y	Y	Y	Y	Y	Y	Y	25.9%		Y	N
CAPEX of taxonomy aligned activities (A.1.)		2,004	35%	35%	35%												35.2%			
Manufacturing of energy efficiency equipment for buildings	3.5	2	0%	0%	0%														Y	N
Manufacturing of other low carbon technologies	3.6	506	9%	9%	9%														Y	N
CAPEX of taxonomy eligible but not taxonomy aligned activities (A.2.)		508	9%	9%	9%															
Total A (A.1. + A.2.)		2,512	44%	44%	44%												44.2%			
B. Taxonomy non-eligible activities																				
CAPEX of taxonomy non eligible activities (B)		3,176	56%																	
Total A + B		**5,688**	**100%**																	

Operating Expenditures (OpEx)

In the denominator, the expenses considered correspond exclusively to R&D costs. Indeed, the other types of operating expenses defined by the delegated regulation (renovation of buildings, short-term rental contracts, maintenance and repairs) were not considered material for Saint-Gobain. In the numerator, were considered:

- OpEx linked to activities whose turnover is eligible and detailing the OPEX linked to activities whose turnover is aligned;
- OpEx corresponding to individual measures related to CO_2 emissions reduction projects.

Section 3.3.3 lists all the actions taken to ensure the transition towards the use of renewable and decarbonized energies, including innovation and R&D programs.

				Substantial contribution criteria						DNSH criteria										
										11	12	13	14	15	16	17	18	19	20	21
Economic activities	Codes	Absolute R&D OPEX	Proportion of R&D OPEX	Climate change mitigation	Climate change adaptation	Water and marine resources	Circular economy	Pollution	Biodiversity and ecosystems	Climate change mitigation	Climate change adaptation	Water and marine resources	Circular economy	Pollution	Biodiversity and ecosystems	Minimum safeguards	Taxonomy-aligned proportion of R&D OPEX year N	Taxonomy-aligned proportion of R&D OPEX year N-1	Category (enabling)	Category (transitional)**
		Currency	%	%	%	%	%	%	%	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	%	E/T	
Manufacturing of energy efficiency equipment for buildings	3.5	61	12%	12%	12%					Y	Y	Y	Y	Y	Y	Y	11.8%		Y	N
Manufacturing of other low carbon technologies	3.6	28	5%	5%	5%					Y	Y	Y	Y	Y	Y	Y	4.9%		Y	N
R&D OPEX of taxonomy aligned activities (A.1.)		89	17%	17%	17%												17.2%			
Manufacturing of energy efficiency equipment for buildings	3.5	3	0%	0%	0%														Y	N
Manufacturing of other low carbon technologies	3.6	16	3%	3%	3%														Y	N
R&D OPEX of taxonomy eligible but not taxonomy aligned activities (A.2.)		18	4%	4%	4%															
Total A (A.1. + A.2.)		107	21%	21%	21%												20.7%			
B. Taxonomy non-eligible activities																				
R&D OPEX of taxonomy non eligible activities (B)		410	79%																	
Total A + B		**517**	**100%**																	

9.4 GLOSSARY

A

ACT
Training program dedicated to the prevention of corruption.

Act4nature International
Voluntary initiative, launched in France, in which companies commit to protecting biodiversity. Saint-Gobain signed up in 2018.

Adhere
Remote training program dedicated to the Principles of Conduct and Action, the Saint-Gobain Group's code of ethical conduct.

Afep or *Association française des entreprises privées*, a French organization founded in 1982, representing large global private companies operating in France.

Attitudes
Concept related to Saint-Gobain's managerial practices. These five practices represent both a management approach and a state of mind that binds all Group employees.

B

BIM or Building Information Modeling
Model that offers an integrated vision of the building during all stages of its life cycle through a "digital twin".

BIPV or Building Integrated Photovoltaics.

Boost
Online training platform created by Saint-Gobain.

BREEAM or Building Research Establishment Environmental Assessment Method
Originating in the United Kingdom, this method for assessing the environmental performance of buildings is the most widely used building certification standard worldwide.

C

Capex or Capital Expenditure
Capex refers to a company's investment expenditure capitalized on the balance sheet. Capex consists of all expenditures incurred by a company relating to its physical investments.

CARE by Saint-Gobain
Social protection program for all Group employees and their families.

CDP or Carbon Disclosure Project
International non-profit organization created in 2000 that publishes data on the environmental impact of the largest companies. It is based in the United Kingdom.

Climatetech or Climate Technologies
Refers to companies that work specifically to reduce or eliminate greenhouse gas emissions and, more generally, offer solutions to combat the impacts of climate change by relying on technologies relating to, in particular, decarbonization, negative emissions, or adaptation to change.

COMPLY
Training program dedicated to competition law.

CSR or Corporate Social Responsibility
This is the voluntary integration by companies of societal, social and environmental concerns into their commercial activities and relations with their stakeholders. It is therefore the contribution of companies to the challenges of sustainable development.

Cullet
Broken glass from production waste or the selective collection of waste and recycled content.

D

DNFP or Declaration of Non-Financial Performance
The Declaration of Non-Financial Performance results from the transposition into French law of a European directive on non-financial reporting in the form of an order replacing the former CSR reporting system. Its purpose is to provide a concise and accessible strategic management tool for the Company, focused on essential information.

E

EBITDA or Earnings Before Interest, Taxes, Depreciation and Amortization.

EFRAG or European Financial Reporting Advisory Group
An international non-profit association created in 2001 with the encouragement of the European Commission and whose role is to develop and promote the European voice in the development of international financial reporting standards (IFRS) and ensure that it is taken into consideration by the IASB (International Accounting Standard Board).

EHS or Environment, Health, and Safety

EPBD or Energy Performance of Buildings Directive
The European Directive on energy efficiency of buildings, adopted in 2002 and implemented since 2006, is the Union's main piece of legislation dealing with the promotion of energy efficiency of buildings. It was inspired by the Kyoto Protocol, which includes legally binding obligations to limit and reduce greenhouse gas emissions.

EPD or Environmental Product Declaration
An environmental product declaration makes it possible to assess the environmental performance of a construction product or equipment intended for use in building works. Its objective is to provide transparent, objective and verified information for consumers.

EpE or *Entreprises Pour l'Environnement*
Founded in 1992, this French association is a partner of the WBCSD and brings together some 50 large French and international companies from all sectors of the economy wanting to take the environment more fully into account in their strategic decisions and day-to-day management. Saint-Gobain is a member.

ESG or Environment, Social and Governance
Environmental, Social and Governance (ESG) criteria are generally the three pillars of the non-financial analysis. They are taken into account in socially responsible management. ESG criteria are used to assess how companies exercise responsibility with respect to the environment and their stakeholders (employees, partners, subcontractors and customers).

ETC or Energy Transition Commission
International think tank focused on economic growth and climate change mitigation. It was created in September 2015 and is based in London.

ETICS or External Thermal Insulation Composite System.

F

FCPE or Corporate Mutual Fund Undertaking for Collective Investment in Transferable Securities (UCITS) reserved for employees of companies.

Fit for 55
A set of proposals to review and update European Union legislation and new initiatives to ensure that EU policies align with the climate targets agreed by the Council and the European Parliament. The name refers to the EU's target of reducing net greenhouse gas emissions by at least 55% by 2030. The proposed package aims to align EU legislation with the target set for 2030.

Float
Industrial process known as float glass in which a mixture of raw materials is continuously loaded into the melting furnace. When it comes out of the furnace, the glass forms a floating strip on the surface of the molten tin.

G

GBC or Green Building Council
NGO promoting sustainable construction founded in 2002, bringing together sustainable construction professionals from more than 100 countries.

GDPR or General Data Protection Regulation
European regulation governing the processing of personal data throughout the European Union.

GHG or Greenhouse Gases
Gaseous components that absorb infrared radiation emitted by the Earth's surface and thus contribute to the greenhouse effect. The increase in their concentration in the Earth's atmosphere is one of the factors behind global warming.

Global ABC or Global Alliance For Buildings and Construction
Launched at COP21, the global alliance for buildings and construction aims to mobilize international institutions on the construction sector's contribution to GHG emissions. Hosted by UNEP, bringing together international organizations, countries, companies and associations, Global ABC has developed a roadmap for zero-carbon construction.

Global Compact
Launched in 2000, this United Nations initiative aims to encourage companies around the world to adopt a socially responsible attitude by committing to integrate and promote several principles relating to human rights, international labor standards, the environment and the fight against corruption.

Global Deal
Initiative launched in 2016 by the Swedish Prime Minister to promote social dialog. Co-led by the OECD (Organisation for Economic Co-operation and Development) and the ILO (International Labour Organization), this initiative brings together a community of players who trust social dialog as a regulatory tool for globalization benefiting everyone.

Green Buildings Saint-Gobain
Website that allows the Group's customers to assess the contribution of its products and solutions to obtaining certifications.

Green Deal or European Green Deal
Set of measures aimed at making Europe a "climate neutral" continent by 2050. Presented on December 11, 2019, by the European Commission, the Green Deal is aimed at companies as well as citizens who are invited to participate in the ecological transition and sustainable development.

Grow & Impact
Strategic plan adopted by Saint-Gobain and announced in November 2021.

H

HPS or High-Performance Solutions
A division of Saint-Gobain, organized by market, for the Group's global customers and aiming to provide value-added solutions for a variety of cutting-edge applications in mobility, construction and industry.

HQE or *Haute Qualité Environnementale*
Certification, created in 2005 in France, pursuing sustainable performance objectives by leaving a large place for life cycle analysis (LCA) of buildings. Its multi-criterion approach incorporates user well-being concerns by considering the impacts on the health and comfort of individuals and the indoor environment.

HR or Human Resources

I

IFRS or International Financial Reporting Standards
The IFRS are a set of international accounting standards established by the International Accounting Standards Board (IASB) and adopted by the European Union.

L

LEED or Leadership in Energy and Environmental Design. US certification program created in 1998.

Lightweight construction
Unlike traditional construction with solid, load-bearing walls (bricks, cement, etc.), light construction consists of producing a frame made of wood, metal, concrete, or a combination of these materials to which light façade systems and non-load-bearing interior partitions are attached. This type of construction, partially or fully carried out on site or prefabricated, reduces the environmental impact of construction and optimizes resource consumption while ensuring superior performance. Saint-Gobain offers a complete range of lightweight construction solutions, which accounts for 40% of the Group's sales: from prefabrication to kitting services to complete façade or partition solutions.

M

Materiality
The extent to which measures significantly impact an organization and its ability to create financial and non-financial value for itself and its stakeholders.

Medef or *Mouvement des entreprises de France*
An employers' organization founded in 1998, replacing the French National Employers' Council (CNPF). Its purpose is to represent French entrepreneurs in its dealings with the State and trade unions.

Mental WellBeing
Program that was rolled out to all Group managers and concerns all Saint-Gobain employees. It takes the form of an interactive app and was designed to clarify the approach to preventing mental health issues and help managers optimize the psychological well-being of their teams.

MEPS or Minimum Energy Performance Standards
Energy efficiency sstandards for buildings, introduced by the 2002/91/CE European Directive, as revised at the end of 2022.

Multichannel
Customer-supplier relationship using at least two channels, such as physical points of contact (stores, advice centers, exhibition venues, etc.), the internet, email, or mobile platforms.

N

Net Zero Carbon
Balancing between CO_2 emissions and absorption.

O

OPEN or Our People in an Empowering Network
Saint-Gobain's human resources program

P

PEE or Company Savings Plan

PEG or Group Savings Plan

PPA or Power Purchase Agreement
Electricity purchase contracts for the medium or long term (five to 20 years) between an electricity producer, often from renewable sources, and an organization that consumes it directly without going through an electricity supplier.

Principles of Conduct and Action
These nine principles constitute Saint-Gobain's Code of Ethics. They refer explicitly to the applicable conventions of the International Labour Organization (ILO), the International Charter on Human Rights and the Guidelines on Multinational Enterprises regarding the fight against corruption of the Organisation for Economic Co-operation and Development (OECD).

R

R&D or Research and Development

REACH or Registration, Evaluation and Authorisation of CHemicals
European regulation that provides for public access to information on substances to which they may be exposed. The corresponding database is managed by the European Chemicals Agency (ECHA).

S

SA or Statutory Auditor
Statutory auditor whose role is to audit the financial statements of a company. The Statutory Auditor engages in a regulated profession and is responsible for independently conducting the accounting, financial and legal audits of a company.

SBTi or Science-Based Targets initiative
The result of a collaboration between CDP, the United Nations Global Compact, the World Resource Institute (WRI), the World Wide Fund for Nature (WWF) and one of the commitments of the We Mean Business coalition, the Science-Based Targets initiative defines and promotes best practices in science target setting and independently assesses and approves corporate targets to accelerate the transition to a low-carbon economy.

Scope
This term refers to the three main families of an organization's greenhouse gas emissions, as defined by the international standard of the Greenhouse Gas Protocol. Scope 1 corresponds to direct emissions; scope 2 corresponds to emissions related to the production of the energy used; scope 3 corresponds to the direct and indirect emissions of the organization's various stakeholders – suppliers, service providers, customers – in its value chain upstream and downstream of its activity.

SDGs or Sustainable Development Goals
SDGs are the 17 interconnected priorities set by the United Nations to promote economic and social development with respect for people and the planet. They were adopted in September 2015 by the UN as part of the 2030 Agenda. They address the challenges of poverty, inequality, climate, environmental degradation, prosperity, peace and justice.

SMAT or Safety Management Tool
Methodology used for safety inspections.

Solutions for Growth
Program that consists of analyzing all the products and services offered by Saint-Gobain and quantifying their ability to provide its customers with performance benefits and contribute to sustainable development.

Stakeholders
A company's stakeholders include all the individuals and organizations that participate in its economic life, observe it, and influence it or that it influences directly or indirectly. They are grouped into two main categories: internal stakeholders and external stakeholders.

T

TCFD or Task Force on Financial Disclosure
Working Group on climate-related financial disclosures with the aim of improving corporate climate-related financial transparency. The TCFD encourages economic players to publish information on how climate-related opportunities and risks are considered in governance, strategy, risk management, and the indicators and metrics used.

Transform & Grow
Saint-Gobain Group transformation plan launched in January 2019 and completed at the end of 2020.

U

UNEP or United Nations Environment Program
A United Nations organization created in 1972 to coordinate environmental activities of the United Nations and assist countries in implementing environmental policies.

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