Welcome to your CDP Climate Change Questionnaire 2020

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

With 171,000 employees, Saint-Gobain is present in 68 countries and holds more than 100 brands. The Group is a worldwide leader in the habitat and construction markets, providing comfort, performance and safety while addressing the challenges of sustainable construction, resource efficiency and climate change all over the world. As a growing number of countries pass new regulations in favor of more energy-efficient buildings, it encourages the introduction of innovative construction techniques for new buildings along with new insulation standards for renovation projects. At the same time, urbanization is a major trend that is affecting the construction market in both developed and emerging countries. The rapid exponential growth in infrastructure needs and increasing demand for energy-efficient solutions represent valuable opportunities for Saint-Gobain. With its unique positioning, Saint-Gobain is among the first to benefit from the environmentally led growth in the construction market. Innovation is at the heart of Saint-Gobain’s strategy. To support that vision and continuously improve its processes and products, Saint-Gobain invests heavily in R and D. For the past nine years, the Group has been ranked in the Top 100 Innovators by Clarivate. Over 80% of the Group’s sales occur in the construction markets, including new construction, renovation, civil engineering and infrastructure. Considerable change is on the way in interior and exterior insulation solutions. The major part of our products (flat glass, glass wool, plasterboard, exterior wall and floor coating mortars) already helps to make buildings more energy efficient for the end user and we intend to further improve their performance in the future. The Group has announced in 2018 a new organization, effective from 2019. The new structure is as follows: - Activities in regional markets (activities from the former Building Distribution and Construction Products, as well as building glass) are now organized by country and consolidated into four regions (Northern Europe; Southern Europe, Middle-East, Africa; Americas; Asia-Pacific). In markets where products and services are supplied locally and mostly have short distances to cover, the structure per country and region leverages Saint-Gobain's strengths to meet the specific needs of each local market. - A High Performance Solutions entity is responsible for global market activities (corresponding to the former High-Performance Materials Sector as well as the automotive glazing activities). These are products and services with a high unit value that can be shipped over long distances and whose value is often created through co-innovation with customers and bespoke technologies. The High Performance Solutions BUs provide the best service to the various markets with three market-oriented BUs (Mobility, Life sciences, Construction Industry) and two BUs serving industry more generally (one channel-oriented Abrasives and Composite Systems BU and one product-oriented Ceramics BU). To showcase and monitor its strong engagement towards sustainability, Saint-Gobain has set for itself a number of ambitious targets in the areas of environment including CO2 emissions and energy consumption. Those targets in intensity are set up for the plants being representative of the

impact of the Group. In 2019, around 475 plants are concerned. Saint-Gobain also had absolute Science-Based Targets (SBT) approved in 2019 regarding scope 1, 2 and 3 CO2 emissions. In the area of sustainable development and corporate social responsibility, Saint-Gobain is referenced by the MSCI World ESGLeaders, STOXX® Global ESG Leaders, Ethibel ESI Excellence Global, Ethibel ESI Excellence Europe, FTSE4Good and Dow Jones Sustainability Index Europe Indices. We strongly recommend the reader to check our 2019 universal registration document before reading this full CDP document, particularly the pages: 68 to 70, 82 to 88 and 110-112 Link to the document: https://www.saint-gobain.com/sites/sgcom.master/files/saint-gobain2019_urd_en_pdf.pdf

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years
Reporting year	January 1, 2019	December 31, 2019	No

C0.3

(C0.3) Select the countries/areas for which you will be supplying data.

Albania
Algeria
Angola
Argentina
Australia
Austria
Belgium
Bhutan
Botswana
Brazil
Bulgaria
Canada
Chile
China
Colombia
Czechia
Denmark
Egypt
Estonia
Finland
France
Germany
Ghana
Greece

Hungary
India
Indonesia
Ireland
Italy
Japan
Jordan
Kuwait
Latvia
Lebanon
Lithuania
Luxembourg
Malaysia
Mexico
Morocco
Netherlands
New Zealand
Norway
Oman
Peru
Poland
Portugal
Qatar
Republic of Korea
Romania
Russian Federation
Saudi Arabia
Serbia
Singapore
Slovakia
Slovenia
South Africa
Spain
Sweden
Switzerland
Thailand
Turkey
United Arab Emirates
United Kingdom of Great Britain and Northern Ireland
United Republic of Tanzania
United States of America
Venezuela (Bolivarian Republic of)
Viet Nam
Zimbabwe

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

EUR

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Operational control

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Board-level committee	The directors of the Board participated, in February 2018, at a seminar organized specifically to their attention by the Chief Sustainability Officer, devoted to climate change and its consequences for businesses, with the support of external experts, recognized internationally. This seminar intended to enable each director to better understand the issues related to climate change for the Saint-Gobain Group and the consequences on its strategy. In April 2019 and 2020, the training sessions were pursued with two topics: one on circular economy with a specific point addressed related to the link between circular economy and climate change, the second on “the transformation of the energy and industry system in a net zero economy” Climate change is a topic regularly discussed at Board level and for which the Board has full oversight. As illustration, on March 2019, the board of directors was updated on our CO2 performance and strategy. In September 2019, during the Climate Action Summit conveyed by the General Secretary of the United Nations, our President, Member of the Board, signed the pledge of the Global Compact “Business ambition for 1.5°C”, committing Saint-Gobain to reach net-zero emissions by no later than 2050 in line with 1.5°C

	scenarios. On November 2019, the board of directors had a presentation of the strategy forward for our net zero carbon commitment.
President	It is the Chairman, the Chief Executive Officer and a Member of the Board. He is also member of the Strategy and CSR Committee which is responsible for reviewing the strategic plan, its potential for improvement and the strategic topics proposed by its members. He reports monthly to the Executive Board. Saint-Gobain 's CEO has been very active during the COP21; in 2015, he published his book on climate change: "our fight for the climate". In 2016 he has been awarded the World GBC's David Gottfried prize. This award, created in 2011, rewards personalities who have made a unique, innovative and entrepreneurial contribution to the global cause of sustainable building development. In September 2019, during the Climate Action Summit conveyed by the General Secretary of the United Nations, he signed in the name of Saint-Gobain the pledge of the Global Compact "Business ambition for 1.5°C", committing Saint-Gobain to reach net-zero emissions by no later than 2050 in line with 1.5°C scenarios.
Other, please specify executive committee	Senior Vice President in charge of Human Resources,who has the overall responsibility of the Sustainable Development department General Secretary of the Group in charge of Corporate Social Responsibility

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – some meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Setting performance objectives Monitoring implementation and performance of objectives Monitoring and overseeing progress against goals and	The Board is in charge of the overall strategy regarding climate-related issues. The Strategy and CSR Committee of the Board of Directors, composed of three Directors including the CEO meets 6 times per year and regularly tracks the implementation of short-, medium- and long-term programs, covering also risks and opportunities. Leadership for this challenge is provided directly by the Chief Sustainability Officer.

	targets for addressing climate-related issues	

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Chief Sustainability Officer (CSO)	Both assessing and managing climate-related risks and opportunities	More frequently than quarterly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

The Strategy and CSR Committee of the Board of Directors, composed of three Directors including Saint Gobain's CEO, meets 6 times per year and regularly tracks the implementation of short-, medium- and long-term programs, covering also risks and opportunities. In 2016, the Group developed its CSR dashboard under the supervision of the Board of Directors. Leadership for the climate change challenge is provided directly by the Vice President of Sustainable Development (CSO). The Chief Sustainability Officer, Vice-President, reports to the Senior Vice President in charge of Human Resources, who has the overall responsibility of the Sustainable Development department and is member of Saint-Gobain Executive Committee. This person reports to Saint-Gobain's CEO. The Sustainable Development department is responsible for managing the Group strategy in terms of Sustainable Development. This particularly includes, for climate change, topics such as carbon footprint of our products (worked in close relationship with our Marketing Department) and achievement of our climate-related targets at production facility level and over our value chain. In addition, each year, a mapping analysis of the Groups' major risks is made by the Internal Audit and Business Control Department. All the material risks that the Board of directors must be aware of are included into the mapping analysis. Climate change related risks are included in the mapping analysis of the Group's as potential material risks with the support of our CSO. The map is being reviewed by the Audit and Risks Committee and then validated by the board of directors.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive	Type of incentive	Activity inventivized	Comment
President	Monetary reward	Emissions reduction target	One third of the CEO's total bonus is based on three qualitative targets, one of them being the deployment of the corporate social responsibility policy (including for climate change: sustainability of our products and CO2 emissions targets at facility level corresponding to a 20% reduction by 2025 compared to 2010 at iso-production).
Other, please specify 2231 Group officers and employees	Monetary reward	Emissions reduction target	People entitled to monetary reward are: managers with outstanding performance and high-potential managers (2,192 grantees), the main functional and operational heads of the Entities and Regions (25 grantees), Executive Committee members (12 grantees excluding the executive corporate officers), Chairman and Chief Executive Officer, Chief Operating Officer. Since 2017, the following performance conditions are considered for CSR: the total recordable accident rate (more than 24 hours' lost and non lost time), the reduction rate of CO2 emissions and the senior executives diversity index.
Facilities manager	Non-monetary reward	Efficiency project	Facility managers receive a recognition letter in the framework of the internal program called CARE4 if they succeed in raising the energy performance of their building to the best national energy performance standard. In the end of 2019, 37 buildings were recognized as CARE4
All employees	Non-monetary reward	Emissions reduction project	The annual Emerald Awards reward Saint-Gobain sites around the world that carry out projects contributing to the reduction of their environmental impacts including energy and climate change as well as those of their manufactured products. The objectives with this competition are to raise the employee awareness on environmental stakes, enforce best practices and incentivize managers to launch and share their environmental projects. As example, in 2019, two sites were awarded regarding energy and CO2: one plastic site in Mexico which adapted its energy consumption to its production

			needs and one insulation site in Romania which substituted fossil fuel by biomass

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	0	3	Our environment medium-term target, including CO2 and energy, is in 2025 compared to 2010. This 15 years period is cut in 5 periods of 3 years. During each 3 years period, the scope of sites is updated by considering the sites concerned by the environment (ie giving together an appropriate overview of the Group impact). We are in 2019 in the 2017-2019 period with 2016 as reference year, which is still our reference year for defining short medium and long-term.
Medium-term	3	9	Our environment medium-term target, including CO2 and energy, is in 2025 compared to 2010 at isoproduction (ie at constant production level). The target is -20% for CO2 emissions and -15% for energy consumption.
Long-term	9	34	In September 2019, during the Climate Action Summit conveyed by the General Secretary of the United Nations, Saint-Gobain signed the pledge of the Global Compact “Business ambition for 1.5°C”, committing the Group to reach net-zero emissions by no later than 2050 in line with 1.5°C scenarios.

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

An impact over the threshold of 50 million euros is considered by Saint-Gobain as a substantial financial impact. Saint-Gobain’s internal control and risk management system is in charge of considering whether a risk has or not an impact on our business, including possible impacts on our business coming from the value chain (the impact being assessed from a financial, human, environmental and reputational perspectives). We use the internal control and risk management framework defined by the French securities regulator (Autorité des marchés financiers - AMF), as updated in July 2010, and on the 2013 update to the framework from the

Committee of Sponsoring Organizations of the Treadway Commission (COSO). The system complies with the legal requirements applicable to companies listed on the Euronext Paris regulated market. Each year, a mapping analysis of the Groups' major risks is made by the Internal Audit and Business Control Department. All the material risks that the Board of directors must be aware of are included into the mapping analysis. Climate change related risks are included in the mapping analysis of the Group's as potential material risks. The map is being reviewed by the Audit and Risks Committee and then validated by the board of directors. The Chief Sustainability Officer is in charge of the coordination of the climate-related risks and opportunities. For example, the opportunity further identified as "development and/or expansion of low emission goods and services", through our insulation solutions, is part of his responsibilities. The Sustainable Development department is at the origin of the use of an internal carbon price which aims at reducing financial risks by already applying a common carbon price at worldwide level, helping in identifying growth opportunities in low-carbon sectors, redirecting industrial and R & D investments, and prioritizing actions to reduce CO2 emissions. This is therefore a very useful tool to manage appropriately the transitional risk further identified as "Increased operating costs". The Risk and Insurance department manages risks of property damage and related business interruption. The Group deals with increased risks of loss due to climate change (flooding, rainfall or storm) within the scope of its industrial and distribution risks prevention policy. This takes into account the increase in extreme climate events, which specifically lead both to damage that may be caused to the facilities or stock and to interruptions in production or supplies. The degree of exposure and vulnerability of the sites to natural events is updated regularly through adapted audits and self-assessments through an internal risk grading tool. This leads to definition and update of actions plan with a view to improving the level of prevention and protection. This process has been applied for the events further presented as being part of our physical risks ("Increased severity of extreme weather events such as cyclones and floods"). Facilities must apply the Group Loss Prevention Manual and Business Continuity Plans are defined at site level.

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered

Direct operations
Upstream
Downstream

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term

Medium-term
Long-term

Description of process

The Sustainable Development department is at the origin of the use of an internal carbon price which aims at reducing financial risks by already applying a common carbon price at worldwide level, helping in identifying growth opportunities in low-carbon sectors, redirecting industrial and R & D investments, and prioritizing actions to reduce CO2 emissions.This is therefore a very useful tool and it can be considered as a good case study showing how to manage appropriately the transitional risk further identified as “Increased capital expenditures”; this internal carbon price has being of support for some reduction initiatives presented in the question C.4.3b
The Group conducts risks assessment over the short, mid, and long term, taking into account the wide range of climate-change related risks. This assessment is mainly led by the Risk and Insurance department as well as at Business Control department. The Group deals with increased risks of loss due to climate change (flooding, rainfall or storm) within the scope of its industrial and distribution risks prevention policy. This takes into account the increase in extreme climate events, which specifically lead both to damage that may be caused to the facilities or stock and to interruptions in production or supplies. The degree of exposure and vulnerability of the sites to natural events is updated regularly together with the action plan with a view to improving their level of prevention and protection. As a good case study for physical risk, we can highlight that this process has been applied for the two weather events in the South of France happening in 2019 further presented as being part of our physical risks (“Increased severity of extreme weather events such as cyclones and floods”).Saint-Gobain internal control and risk management system is continuously updated, taking into account any additional risk that may emerge from climate change.

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Not relevant, explanation provided	The Legal Department anticipates and monitors new environmental regulations, those are then considered if applicable at appropriate level. As we are present in 68 countries, current regulation related risks are assessed and managed locally by the countries. 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/local laws and regulations of the country where such sites are located. We consider this risk as “Not relevant” because we have undertaken a comprehensive risk assessment and we consider the related consequences as appropriately managed.

Emerging regulation	Relevant, always included	The Legal Department anticipates and monitors new environmental regulations. As we are present in 68 countries, current regulation related risks are assessed and managed locally by the countries. 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. As illustration, we carry out a centralized monitoring to evaluate our CO2 position in the EU-ETS: CO2 emissions, not only current but also forecasted, are estimated by our businesses and communicated to our Purchasing Department which coordinates the operations on the registries. The follow-up also includes the future regulation in terms of EU-ETS credits allocation.
Technology	Relevant, always included	Part of the answer for going to lower carbon content of Saint-Gobain products will need some changes related to technology. This is today shared at each level (from plant to corporate) by energy&CO2 experts for existing best practices. R&D is also fully involved not only for process breakthrough technologies (as illustration, a specific transversal CO2&energy program is on-going and some reduction initiatives presented in the question C.4.3b were developed such as the installation of ORC turbines in India and Italy to recover heat losses) but also by considering eco-innovative solutions for new products.
Legal	Not relevant, explanation provided	We are constantly raising our norms above the current regulation to lead the Group vision of sustainability construction. We regularly assess regulation evolution both internally and through business associations. We consider this risk as “Not relevant” because we have undertaken a comprehensive risk assessment and we consider the related consequences as appropriately managed.
Market	Relevant, always included	Market is an opportunity rather than a risk: market is growing especially for sustainable construction solutions which are one of our core businesses and one of our main activities. The trend is toward more insulation and reduced water stress which are opportunities for our insulating and pipe businesses. It offers the Group a major opportunity for differentiation based on its portfolio of innovative, sustainable solutions for the construction and renovation markets. Nevertheless, we may face some risk related to the increase of raw material cost, such as energy utilities. Our Purchasing department manages such risk through a risk management policy detailed per energy including long-term contracts with suppliers whenever interesting and possible. As examples, we have recently developed some Power Purchase Agreements in Brazil, Spain and India.
Reputation	Not relevant, explanation provided	We are promoting sustainable construction with the main actors of the sustainable construction such as Green Building Councils. Furthermore, we have a risk policy ensuring risk assessment and

		management and action plans for each risk assessed, including climate change related risk therefore risk related to brand image is minimized. Moreover, we have set targets to contribute to the reduction of CO2 emissions and energy consumption. We consider this risk as “Not relevant” because we have undertaken a comprehensive risk assessment and we consider the related consequences as appropriately managed.
Acute physical	Relevant, always included	Although our facilities are spread over a large geographical perimeter, we may be concerned by acute physical events at local level. We assess our exposure to acute physical climate-related risks (such as floods and storms) through regular audits and self-assessment questionnaires updated on an annual basis. Facilities must apply the Group Loss Prevention Manual and Business Continuity Plans are defined for each. At corporate level, the Risk and Insurance department manages risks of property damage and related business interruption (loss prevention and loss management). As illustration, in 2019, it registered and managed claims amounting to 7 million € of losses due to rain, flood, wind and hail, of which 4,5 million of losses attributable to two weather events in the South of France in November 2019, which affected several distribution outlets. This assessment process has been applied for those two weather events in the South of France happening in 2019.
Chronic physical	Relevant, always included	Despite our facilities are spread over a large geographical perimeter, we may be concerned by chronic physical events at local level. We assess our exposure to chronic physical climate-related risks (such as drought) as for our acute physical risks. Regarding water stressed areas, the level of risk of each facility has been assessed. Following issuance of our Water policy in 2011, our water target has been fixed (-80% of discharges between 2025 and 2010 at iso-production) and covers the sites concerned by the environment (around 475 plants representative of the Group impact). Water stress is a criteria for entering in the scope. In 2019, some 60 sites withdrawing more than 5,000 m3 of water each year and representing around 10% of the Group’s water withdrawals were located in high-risk or very high-risk areas.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation

Carbon pricing mechanisms

Primary potential financial impact

Increased indirect (operating) costs

Company-specific description

Since 2013, we have entered the Phase III of the EU-ETS (2013-2020). About 40% of our total scope 1 CO2 emissions are concerned by the scheme. After the Phase III of the EU-ETS we can expect a decrease of the amount of free allocations we will receive, which would lead to increased operational costs. As an example, our plasterboard product is not considered anymore as being part of the so-called “carbon leakage list”, which means that in 2030, no allocation shall be received for this product. The uncertainty over the amount of quota allocated and the price of the carbon tons constitutes a risk. The cap and trade schemes outside Europe represent a minor part of our total scope 1 CO2 emissions.

Time horizon

Medium-term

Likelihood

Virtually certain

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

26,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Considering the lack of free credits using last updated knowledge of EU-ETS phase IV rules (some remaining uncertainties) and a cost of 25€/tCO2 for EU allowance. Estimate on annual basis

Cost of response to risk

2,500

Description of response and explanation of cost calculation

We carry out a centralized monitoring to evaluate our CO2 position in the EU-ETS. CO2 emissions are estimated and communicated to our Purchasing Department which coordinates the operations on the registries. Environment, Purchasing, Finance and Doctrine functions are represented in a global steering committee covering all trading schemes. Our global CO2 steering committee is in charge of analyzing our CO2 position and managing the Group's allowances. An internal shadow carbon price for investment and R&D supports the development of low carbon technologies in order to reduce the potential financial risk. The amount for cost of management is the one devoted annually for the CO2 steering committee

Comment

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Technology

Transitioning to lower emissions technology

Primary potential financial impact

Increased capital expenditures

Company-specific description

We have to lead the transition toward lower emission technology to reduce the carbon footprint of our products and solutions and also reach our target objectives for CO2 emission reduction and energy consumption at facility level. As example, for our glass production activities, we have installed ORC turbines in India and Italy to recover heat losses and produce energy. Our investments programs are based on present or future technologies that provide answers to the specificities of our main carbon intensive businesses (glass, pipe, gypsum and insulation): recovery of energy as indicated in the previous example, but also efficiency, use of alternative energy (hydrogen, biogas) and low carbon raw materials, electrification of our processes and Carbon Capture Use and Storage.

Time horizon

Short-term

Likelihood

Likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

17,500,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Based on “Cumulative Cost Assessment (CCA) of the EU Glass Industry, EU, June 2017” using internal activity data for our main industrial activity (Glass). Estimate on annual basis

Cost of response to risk

80,900,000

Description of response and explanation of cost calculation

Our facilities consider best available technologies and we have a specific cross-business R&D program for improving the CO2 footprint of our manufacturing processes. We also have set an internal carbon price to move faster towards lower emissions technologies. We are using more and more green electricity (from energy certificates as well as from windfarm or solar projects for example in India, Spain or Brazil) The value given for cost management is the annual amount linked to our R&D budget for environment

Comment

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Upstream

Risk type & Primary climate-related risk driver

Market

Increased cost of raw materials

Primary potential financial impact

Increased direct costs

Company-specific description

We could face increase in costs of raw materials because of climate change (energy mix evolution, water scarcity, …). Energy shortage is a specific risk for activities that request a continuous process. Our industry, particularly the production of glass and pipe, requires high levels of energy consumption. We can expect increased direct costs linked to energy for scarcity of present resources or development of future resources (renewable electricity, hydrogen, biogas,…).

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

9,300,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Potential impact for the Group when the brent cost increases by 1USD/bbl. By increasing 1USD/bbl, we estimate that - it increases the natural gas price by 0,3€/MWh, which leads to a 7M€ impact based on our natural gas consumption. - 1M€ is additionally considered for our fuel consumption - 1,3M€ is also added for the transportation cost for purchases and sales

Cost of response to risk

91,000

Description of response and explanation of cost calculation

The impact for the Group is medium due to the large geographical spread of its activities. For energy, we develop long-term contracts linked to renewable energy. For water, we reduce our dependency through lower consumption levels with a specific focus on water stressed areas. The value given for cost of management is considered as the cost of two full-time equivalent for managing energy purchasing contracts at corporate level

Comment

Identifier

Risk 4

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Acute physical

Increased severity and frequency of extreme weather events such as cyclones and floods

Primary potential financial impact

Decreased revenues due to reduced production capacity

Company-specific description

Particularly at risk are the sites situated in floodplains, as well as those situated in areas prone to flash floods after torrential rains. In 2018, we were particularly impacted by a flood event in Egypt in one of our glass float line that caused a long production stoppage.

Time horizon

Short-term

Likelihood

Very likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

7,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

In total in 2019 we registered claims amounting to 7 million € of losses due to climate-related events (including two weather events in the South of France). Another cost indication can be found in the main last event for the Group regarding flooding, which affected particularly 10 sites along the Loing and the Seine rivers in June 2016 in France. In total, 3,1 million € were lost (600 000€ for operating losses and 2,5 million € of damage).

Cost of response to risk

50,000

Description of response and explanation of cost calculation

The Saint-Gobain Loss Prevention policy gives a firm focus to this category of risks, whether in terms of choice of locations, of facility design and layouts, or in terms of risk mitigation in existing locations. We are contracting with an external third party for prevention and engineering audits mapping the exposure of sites to natural hazards (flood, storm). The biggest sites are assessed annually and the others a bit less frequently. In addition, each site has to fill annually an auto-evaluation risk grading which is a 300 question survey, covering potential climate risks including the place of location, facility design etc. An action plan can be derived for each potential risk. We are also currently working with Axa in the use of a flood risk mapping tool to identify priority sites and define action plans with those sites. The sites in exposed areas have to establish prevention, protection and reinforced Business continuity plan to reduce the closing time and to limit the loss of revenue. The indicated cost management is linked to the contract that we have with Axa for improving our risk mapping.

Comment

Identifier

Risk 5

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Chronic physical

Changes in precipitation patterns and extreme variability in weather patterns

Primary potential financial impact

Decreased revenues due to reduced production capacity

Company-specific description

Despite our facilities are spread over a large geographical perimeter, we may be concerned by chronic physical events at local level. We assess our exposure to chronic physical climate-related risks as for our acute physical risks. Drought is the main risk that we could face in the future. In 2019, some 60 sites withdrawing more than 5,000 m3 of water each year and representing around 10% of the Group’s water withdrawals were located in high-risk or very high-risk areas. As example some of our sites located in South Africa and India have a very specific care of the water resource

Time horizon

Medium-term

Likelihood

More likely than not

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

6,100,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

This amount illustrates the cost of a major investment that we have achieved for re-using water and decreasing the Group withdrawal by 12%. The main part of the investment is related to building appropriate mud decantation and water treatment reservoirs including water cooling towers, creating the conditions for reusing water from decantation.

Cost of response to risk

600,000

Description of response and explanation of cost calculation

Particular attention is paid to limiting the Group's withdrawals in water stressed areas. Saint-Gobain uses the World Resources Institute's "Aqueduct" atlas of the world, which allows each of the sites to classify its water risk from "low" to "extremely high". 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). In 2019, some 60 sites withdrawing more than 5,000 m3 of water each year and representing around 10% of the Group's water withdrawals were located in high-risk or very high-risk areas. The Group aims at reducing water discharges by 80% between 2010 and 2025 at iso-production. This water target covers the sites concerned by the environment (around 475 plants representative of the Group impact). Water stress is a criteria for entering in the scope. In-house water recycling is encouraged, particularly through the use of closed-loops, as it considerably limits withdrawals from natural resources. Our Water standard also requires that all sites identify the sources of water affected by withdrawals and discharges. Where natural sources are significantly affected, a detailed environmental impact study must be available. The cost indicated for the management is linked to the management of the project illustrating the potential financial impact. It is estimated at around 10%.

Comment

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Opp1

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Resource efficiency

Primary climate-related opportunity driver

Use of recycling

Primary potential financial impact

Reduced direct costs

Company-specific description

Faced with a decline in raw materials, the sustainable management of resources makes it possible to ensure the competitiveness and continuity of the Group's activities by securing supplies and anticipating changes in legislation and the depletion of natural resources. Some of the Group's products are indefinitely suitable for closed-loop recycling within their industrial process, as is the case for flat glass and plasterboard. The use of recycled raw materials in processes makes it possible to reduce energy consumption, particularly for glass fusion. This reduction in energy consumption is accompanied by a reduction in CO2 emissions (scope 1). The efforts made to transition to a circular economy will therefore have a positive effect on emissions.

Time horizon

Short-term

Likelihood

Virtually certain

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

2,650,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

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. The financial potential given is based on a 1% saving of natural gas for our flat glass activity.

Cost to realize opportunity

45,500

Strategy to realize opportunity and explanation of cost calculation

Developed in 2015, the Sustainable Management of Resources policy aims to reduce the impact of the use of resources and their responsible management to favor the transition to a circular economy. The Flat Glass Activity has optimized its logistics to promote the recovery of cullet across the entire value chain where the Group is present and especially between glass processing sites (manufacturing windshields or windows, for example) and glass furnaces. In addition to this, systems for recovering windshields or windows are being promoted in the countries where glass furnaces are capable of melting the post-consumer cullet collected. The Commitment to Green Growth for flat glass signed by the trade associations in 2017 could lead to the collection and sorting of 80,000 tons of cullet per year in 2025 for the whole of the subsidiary in France. The cost given for realizing the opportunity is the cost of one full-time equivalent for managing the cullet recycling at French level On the international level, Saint-Gobain joined at the end of 2017 the Factor 10 program of the World Business Council for Sustainable Development relative to the circular economy.

Comment

Identifier

Opp2

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Resource efficiency

Primary climate-related opportunity driver

Reduced water usage and consumption

Primary potential financial impact

Reduced direct costs

Company-specific description

We have a water program policy aiming at reducing our water consumption. By consuming less water we are less dependent on the sites most exposed to water scarcity and reduce the risk of production cost increase. This is particular importance for our continuous activities such as glass and pipe production that need water for cooling furnaces. Between 2010 and 2019, Saint-Gobain has decreased its water discharge by 34,5% at iso-production.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

22,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

As illustration, we have saved ~11Mm3 per year of withdrawed water between 2015 and 2017 thanks to water recycling projects. Using a 2€/m3 cost.

Cost to realize opportunity

6,100,000

Strategy to realize opportunity and explanation of cost calculation

Through its signature of the CEO Water Mandate, Saint-Gobain forms part of the Alliance of Businesses for Water and Climate Change. This Alliance encourages signatories to measure their water footprint and to reduce their impact. Through its water policy deployment, the Group has defined medium-term target with the reduction of its discharge by 80% in 2025 vs 2010, at iso-production. The cost to realize opportunity illustrates the cost of a major investment that we have achieved for re-using water and being the main driver for the indicated potential cost.

Comment

Identifier

Opp3

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

Development of climate adaptation, resilience and insurance risk solutions

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

Changes in precipitation patterns will change the distribution of surface water. Several semi-arid countries (e.g. Mediterranean basin, West of USA, Austral Africa, North East of Brazil,…), will be affected by a diminution of water resources. Consequently, the need for new water infrastructure may increase. This represents a potential sales increase for our Pipe business, which manufactures products for water-supply, irrigation and sewer networks. As example, the "Integrated water cycle" project in Vrasta (Bulgaria), was initiated by our Pipe Business in order to replace the existing drinking water and sanitation infrastructure and thus reduce the high level of water losses that currently occurs with existing pipes.

Time horizon

Short-term

Likelihood

Very likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

57,890,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

The provided data for the potential impact corresponds to 1% increase of our average sales of our “exterior products” business which includes the pipe activity.

Cost to realize opportunity

0

Strategy to realize opportunity and explanation of cost calculation

Our Pipe division monitors marketing, technical and environmental developments to identify infrastructure needs, environmental changes or new regulations that may increase demand There is no specific cost to realize opportunity. The opportunity comes from the need of our customers due to the consequences of the climate change.

Comment

Identifier

Opp4

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

The demand for low emission goods and services is increasing through stricter regulations and a shift of consumer preferences. Our eco-innovation policy and our R&D investments are turned toward more product efficiency and low emission products. For example we are working on lighter windshield to reduce CO2 emissions from cars, and also on adapting our offer to the development of hybrid or 100% electric vehicles Another very relevant example is the strong benefit of using our building insulation products to decrease the energy consumption and its related CO2 emissions, supported by local/regional regulation. Local conditions may also increase the demand particularly in emerging countries (rapid urbanization, changing temperatures, rising sea levels,…). After a use for an average of three months, the Saint-Gobain Group’s insulation solutions offset the emissions linked to the whole of their life cycle.

Time horizon

Short-term

Likelihood

Very likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

340,600,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

We are expecting increased demand for our wide range of sustainable products, notably for our products related to sustainable habitat solutions and energy efficiency. The habitat market currently represents around 80% of our total market, corresponding to sales of approximately 34060M€. An increase in demand of 1% could therefore increase Group sales by 340,6M€.

Cost to realize opportunity

464,000,000

Strategy to realize opportunity and explanation of cost calculation

For the past 9 years, the Group has been ranked in the Top 100 Innovators by Clarivate. Since 2012, an eco-innovation approach is implemented to develop and distribute eco-friendly products, anticipating our customers' needs. At the end of 2019, almost 900 employees, mainly in the marketing and R&D teams, have received eco-innovation training. We developed in 2017 the SCORE methodology analyzing a product over its life cycle from two perspectives:
- its environmental and social impacts, from the extraction of the raw materials until it leaves the factory; - its contribution to making the building more sustainable. The methodology covers a broad range of topics: global warming potential, energy consumption, energy savings, other carbon benefits (renewable energies, carbon capture). Saint-Gobain is involved in local efforts to promote sustainable buildings by joining more than 30 Green Building Councils (GBCs), being a World GBC Europe Regional Network Partner, and a sponsor of World GBC's Better Places for People campaign, as well as a Corporate Advisory Board member (through our Chief Sustainability Officer). We spent €464M on research and development expenses in 2019. A large part of this amount was dedicated to energy efficient products.

Comment

Identifier

Opp5

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Resilience

Primary climate-related opportunity driver

Participation in renewable energy programs and adoption of energy-efficiency measures

Primary potential financial impact

Reduced direct costs

Company-specific description

In the frame of our CO2 and energy policy, we have a target of 15% reduction of energy consumption in 2025 compared to 2010 at iso-production. Reaching this target will help the Group being more resilient in a worldwide context of fuel mix evolution. As specific example, for our glass production activities, which is considered as intensive in energy consumption, we have installed ORC turbines in India and Italy to recover heat losses and produce energy that is used in substitution of our previous supply.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

12,300,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

15% energy consumption reduction on natural gas (30€/MWh) and on electricity (50€/MWh). Plan of actions over 15 years. Annual amount considering our average yearly natural gas consumption (~26GWh) and electricity consumption (~9,5GWh)

Cost to realize opportunity

80,900,000

Strategy to realize opportunity and explanation of cost calculation

To reach this target, we are using our industrial equipment more closely to the technical limit to eliminate energy waste. All possible energy waste is tracked to be eliminated. The deployment of the World Class Manufacturing (WCM) program to all of the Group's

industrial sites is a driver for progress. The Group encourages energy audits on its sites and at the end of 2019, 91 sites of the “environment concerned scope” were certified to ISO 50001. In addition, a process of energy audits with the aim of improving the insulation of the Group’s production facilities has been launched. Saint-Gobain places all its sites in a phase of continuous improvement. In this respect, they aim to identify and evaluate the Best Available Techniques (BAT) and Practices and then progressively upgrade them at an economically acceptable cost, in accordance with the Group’s environmental vision. A BAT deployment plan is defined, updated annually and included in the three-year strategic plan. As example, in 2019, our Saltillo plastic site in Mexico was awarded for a project linked to the adaptation of its energy consumption to its production levels, leading to a 18% reduction of its natural gas consumption. Our cost to realize opportunity is linked to R&D investments related to environment/energy in 2019.

Comment

C3. Business Strategy

C3.1

(C3.1) Have climate-related risks and opportunities influenced your organization’s strategy and/or financial planning?

Yes, and we have developed a low-carbon transition plan

C3.1a

(C3.1a) Does your organization use climate-related scenario analysis to inform its strategy?

Yes, qualitative and quantitative

C3.1b

(C3.1b) Provide details of your organization’s use of climate-related scenario analysis.

Climate-related scenarios and models applied	Details
2DS	Saint-Gobain fully supports the establishment of SBT trajectory for the Construction sector. No methodology has yet been published for setting emissions reduction targets for the construction industry. This item of data is essential for Saint-Gobain to position its contribution and its impacts, both positive and negative, on a 2°C trajectory. Saint-Gobain has mobilized and committed as part of the Global Alliance for Building and Construction, in tandem with other players in the construction value chain and through the WBCSD, with the support of “We Mean Business” and the CDP to develop a SBT compliant methodology for the construction sector. This approach should allow for the definition of an approach to a low-carbon trajectory for the construction market.

	We nevertheless already committed to set science-based targets and had them validated in April 2019. Our validated SBT targets are: - Saint-Gobain commits to reduce absolute scope 1 and 2 GHG emissions 10 % by 2025 from a 2017 base-year. - Saint-Gobain commits to reduce absolute scope 3 GHG emissions 10% by 2025 from a 2017 base-year. This covers our emissions from “Purchased goods and services”, “Fuel and energy related activities”, “Upstream transportation and distribution”, “Downstream transportation and distribution” and “End-of-life treatment of sold products” For setting up those targets, we have used for scope 1 and 2 the SDA Method for “Other sector” (of February 2017). For scope 3 emissions, we used the absolute contraction option. We decided to set-up a target for 2025 because it is in line with our previous internal intensity target of -20% for scope 1 and 2 emissions at iso-production in 2025 compared to 2010, at iso-production. Since September 2019 and the commitment to carbon neutrality by 2050, the Group has confirmed its willingness to be part of a 1.5 °C warming scenario. Measures, action plans and interim targets taking into account Saint-Gobain’s investment cycles will be specified in 2020. For scope 1 and 2 SBT absolute targets, we will pursue our efforts made in the frame of our scope 1 and 2 intensity target at facility level using the different levers: energy efficiency and recovery and low carbon investments, green energy purchases, R and D breakthrough technologies. For scope 3 emissions, we will pursue our efforts in the different areas managing our value chain: - Purchasing: substitution for less emissive raw materials - Transportation: optimization of logistics (for example less trucks running empty) and use of greener fuels. As example our construction products distribution entity in Norway has moved in 2018 to biofuel use for its trucks. - Use of sold products: continuing to make lighter car windshields (despite those products are considered as indirect use-phase emissions and therefore not considered by the SBT initiative for setting-up scope 3 emissions targets) - Products end-of-life: increase for our recycling through our circular economy roadmaps. Our Marketing and Sustainable Construction Team is also fully involved in increasing the use of our sustainable insulation solutions. Indeed, the benefits provided by the Group’s thermal insulation and insulating glazing, in terms of energy consumption and greenhouse gas emissions, significantly exceed their production-related emissions.

C3.1d

(C3.1d) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence

Products and services	Yes	We continued to develop in 2019 lighter windshield to reduce vehicle weight and lower the CO2 emissions of cars. Saint-Gobain's objective is to continue to increase the benefits associated with the use of its products and solutions while reducing the carbon impact of its activities. The Group's strategy is thereby embedding a transition to a low-carbon economy through control of risk and the development of new market opportunities. The Group responds to market opportunities associated with the challenge of climate change through its sustainable construction strategy. As a global leader in sustainable construction, Saint-Gobain intends to fully contribute to these objectives through the Global Alliance for Building Construction. In 2015, Saint-Gobain has developed a methodology to estimate GHG emissions saved when using its insulation solutions in Europe. In 2017 we updated the results for 2016 not only for Europe but worldwide. Results show that from 3 months' use, our solutions, on average, offset production-related emissions. Beyond those 3 months, the savings continue to accumulate. This study demonstrates our positive contribution to reducing global GHG emissions. Thus, the benefits provided by the Group's thermal insulation and insulating glazing, in terms of energy consumption and greenhouse gas emissions, significantly exceed their production-related emissions. Our acquisitions of building insulation products factories follow the market demand of concerned countries. National schemes for building energy efficiency, such as energy certificates in France, boost the sales of insulation products, depending on what is subsidized. As case study, we can highlight that in November 2019, we inaugurated a new glass blowing wool production line in Chemillé (France) to support the growth in the insulation market. The magnitude for this impact has been estimated as high. We are expecting increased demand for our wide range of sustainable products, notably for our products related to sustainable habitat solutions and energy efficiency. The habitat market currently represents around 80% of our total market, corresponding to sales of approximately 34060M€. An increase in demand of 1% could therefore increase Group sales by 340,6M€.
Supply chain and/or value chain	Yes	The Flat Glass Activity has optimized its logistics to promote the recovery of cullet across the entire value chain where the Group is present and especially between glass processing sites (manufacturing windshields or windows, for

		example) and glass furnaces. In addition to this, systems for recovering windshields or windows are being promoted in the countries where glass furnaces are capable of melting the post-consumer cullet collected. The magnitude for this impact has been estimated as low. 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. The Commitment to Green Growth for flat glass signed by the trade associations in 2017 could lead to the collection and sorting of 80,000 tons of cullet per year in 2025 for the whole of the subsidiary in France.
Investment in R&D	Yes	In 2019, the Group invested €464 million in research and development, and the work of our 3,700 R and D employees resulted in applications for nearly 400 new patents. For the nine year running, Clarivate Analytics ranked Saint-Gobain among its Top 100 Global Innovators. We have the cross-business R&D program, “Improving our CO2 footprint” to coordinate and expand research and development efforts devoted to improving manufacturing processes with a view to reducing their greenhouse gas emissions. We have also other programs linked to oven combustion and raw material that are strongly linked to climate change and energy efficiency. For 2019 the main topics studied are linked to efficiency and recovery of energy, supply of alternative energy (renewable electricity, hydrogen, biogas) low carbon raw materials, circular economy, electrification of our processes and Carbon Capture Use and Storage. All those studies can answer the specificities of our main carbon intensive businesses (glass, pipe, gypsum and insulation). The magnitude for this impact has been estimated as medium. In addition, we have set up an internal carbon price to speed up the Group’s transition to low-carbon technologies. It allows for the assessment of the current or potential impact of a regulatory carbon price on the Group’s activities, identification of opportunities for growth in low-carbon sectors, refocusing investments in manufacturing and R and D, and ranking actions to reduce CO2 emissions. Saint-Gobain has set two internal carbon price levels. The first is fixed at €30 per ton and applies 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 more than 10 GWh. The second carbon price level of €100 per ton is used for R and D investment in breakthrough technology. This price level is of demonstrable value in

		supporting low-carbon R and D projects in particular.
Operations	Yes	The deployment of our environment policies at our production units has already brought some results, linked to implementation of best practices and investments (86M€ spent for environment in 2019). 2019 results compared to 2025 target (baseline 2010, at iso-production): - CO2 emissions:14,5% reduction for a 20% target (together with a reduction of 2,1% for energy consumption)- Water discharge: 34,5% reduction for a 80% target. We are also putting the emphasis on the acceleration of circular economy; Countries and businesses must define a roadmap for developing the circular economy with three priorities: have maximum recycled content in their products; generate a minimum of production residues; recover internally or externally the waste resulting from these processes. At the international level, at the end of 2017, Saint-Gobain joined the circular economy World Factor 10 program from the World Business Council for Sustainable Development. Since September 2019 and the commitment to carbon neutrality by 2050, the Group has confirmed its willingness to be part of a 1.5 °C warming scenario. Measures, action plans and interim targets taking into account Saint-Gobain's investment cycles will be specified in 2020. This means that presently, our main carbon intensive businesses (glass, pipe, gypsum and insulation) are carrying out their own and specific carbon roadmap studies towards carbon neutrality. Risk management also includes assessment of the risks associated with climate change and its consequences at Group level. In 2019, we registered and managed claims amounting to 7 million € of losses due to rain, flood, wind and hail, of which 4,5 million of losses attributable to two weather events in the South of France in November 2019, which affected several distribution outlets. The magnitude for this impact has been estimated as medium.

C3.1e

(C3.1e) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence

Row 1	Revenues Direct costs Indirect costs Capital expenditures Capital allocation Acquisitions and divestments Assets	1) Revenues We have examples of insulation products for which national schemes for building energy efficiency boost the demand, and for which further development are/have been planned. As case study, we can highlight that in November 2019, we inaugurated a new glass blowing wool production line in Chemillé (France) to support the growth in the insulation market. The habitat market currently represents around 80% of our total market, corresponding to sales of approximately 34060M€. An increase in demand of 1% could therefore increase Group sales by 340,6M€. The magnitude for this impact has been estimated as high. 2) Direct costs: The Flat Glass Activity has optimized its logistics to promote the recovery of cullet across the entire value chain where the Group is present and especially between glass processing sites (manufacturing windshields or windows, for example) and glass furnaces. The recycling rate is an input for the need of raw material and energy. A 1% saving of natural gas for our flat glass activity corresponds to a 2,65M€ saving. The magnitude for this impact has been estimated as low. The Commitment to Green Growth for flat glass signed by the trade associations in 2017 could lead to the collection and sorting of 80,000 tons of cullet per year in 2025 for the whole of the subsidiary in France. 3) Indirect costs: We have not yet been impacted by EU-ETS (Emissions Trading Scheme). But our plasterboard product is for example not considered anymore as being part of the so-called “carbon leakage list”, which means that in 2030, no allocation shall be received for this product. Our position, including forecast, is constantly updated by Purchasing department and shared with the CO2 committee to manage the related risk. Ensuring the control of its direct emissions and prudent management of previous allocations are two principles that Saint-Gobain has applied since the introduction of European regulations. 4) Capex: The deployment of our environment policies at our production units has already brought some results, linked to implementation of best practices and investments (86M€ spent for environment in 2019). 2019 results compared to 2025 target (baseline 2010, at iso-production): - CO2 emissions: 14,5% reduction for a 20% target - Water discharge: 34,5% reduction for a 80% target The investment planning is made by considering those results as input. We develop several programs, as for example ORC turbines installation for energy recovery of our Glass activity (For example, Saint-Gobain has installed in 2019 turbines in India and Italy to produce electricity from previously wasted energy). 5) Capital allocation: Our process of validating investment has integrated the use of an internal carbon price to speed up the Group’s transition to low-carbon

		technologies. It is fixed at €30 per ton and applies 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 more than 10GWh. The example provided in point 4) for ORC installation in Italy in 2019 is a good case study showing that investment can be achieved by applying such internal carbon price. The magnitude for this impact has been estimated as medium. 6) Acquisitions and divestments: Our acquisitions of building insulation products factories follow the needs of concerned countries. The magnitude for this impact has been estimated as high. In 2019, the Group acquired 18 entities (some from Insulation)for a total amount of €297 million. As example, on November 12, 2019, the Group announced the signature of an agreement to acquire Continental Building Products, which represents a unique opportunity to become a leading player in plasterboard and building solutions in North America. 7) Assets: Some of our assets are severely affected by the increased severity of extreme weather events such as cyclones and floods. We have a large number of facilities located in 68 countries so the risk is diversified and the financial impact moderated in relation to the global value of assets and business. The Saint-Gobain Loss Prevention policy gives a firm focus to this category of risks, whether in terms of choice of locations, of facility design and layouts, or in terms of risk mitigation in existing locations. Each site has to fill annually an auto-evaluation risk grading. An action plan can be derived for each potential risk. The magnitude for this impact has been estimated as medium. In 2018, we were particularly impacted by a flood event in Egypt in one of our glass float line that caused a long production stoppage. This is a typical example of event used to enrich our assessments and try to mitigate the risk on our assests

C3.1f

(C3.1f) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).

It is important to highlight that we support TCFD recommendations; a correspondance table has been set up between TCFD recommendations and our universal registration document.

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

Both absolute and intensity targets

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

Target reference number

Abs 1

Year target was set

2018

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 1+2 (location-based)

Base year

2017

Covered emissions in base year (metric tons CO2e)

12,954,951

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)

100

Target year

2025

Targeted reduction from base year (%)

10

Covered emissions in target year (metric tons CO2e) [auto-calculated]

11,659,455.9

Covered emissions in reporting year (metric tons CO2e)

10,758,875

% of target achieved [auto-calculated]

169.5163493864

Target status in reporting year

Underway

Is this a science-based target?

Yes, this target has been approved as science-based by the Science-Based Targets initiative

Please explain (including target coverage)

This variation is mainly due to our improvement on our intensity target (efficiency and green energy). It has to be maintained till 2025 to confirm the achievement.

Target reference number

Abs 2

Year target was set

2018

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 3 (upstream & downstream)

Base year

2017

Covered emissions in base year (metric tons CO2e)

23,717,753

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)

92

Target year

2025

Targeted reduction from base year (%)

10

Covered emissions in target year (metric tons CO2e) [auto-calculated]

21,345,977.7

Covered emissions in reporting year (metric tons CO2e)

23,717,753

% of target achieved [auto-calculated]

0

Target status in reporting year

Underway

Is this a science-based target?

Yes, this target has been approved as science-based by the Science-Based Targets initiative

Please explain (including target coverage)

In 2019, the Group has updated its Scope 3 evaluation, using 2017 as reference, and making the methodology and data more robust for each category. This explains the difference with the previous year CDP reporting. The % of target achieved is at zero because the study is not updated every year.

C4.1b

(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).

Target reference number

Int 1

Year target was set

2011

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 1+2 (location-based)

Intensity metric

Metric tons CO2e per unit of production

Base year

2010

Intensity figure in base year (metric tons CO2e per unit of activity)

17,438,524

% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure

100

Target year

2025

Targeted reduction from base year (%)

20

Intensity figure in target year (metric tons CO2e per unit of activity) [auto-calculated]

13,950,819.2

% change anticipated in absolute Scope 1+2 emissions

-42

% change anticipated in absolute Scope 3 emissions

0

Intensity figure in reporting year (metric tons CO2e per unit of activity)

14,909,938

% of target achieved [auto-calculated]

72.5000005734

Target status in reporting year

Underway

Is this a science-based target?

No, but we are reporting another target that is science-based

Please explain (including target coverage)

Saint-Gobain has set mid-term objectives to reduce CO2 emissions (scope 1+2) by 20% by 2025 compared to 2010, at iso-production. We have achieved a 14,5% reduction over 2010-2019. Note that provided data are in absolute and not in intensity.

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?

Other climate-related target(s)

C4.2b

(C4.2b) Provide details of any other climate-related targets, including methane reduction targets.

Target reference number

Oth 1

Year target was set

2011

Target coverage

Company-wide

Target type: absolute or intensity

Intensity

Target type: category & Metric (target numerator if reporting an intensity target)

Waste management

Other, please specify

metric tons of non-recovered waste

Target denominator (intensity targets only)

unit of production

Base year

2010

Figure or percentage in base year

513,422

Target year

2025

Figure or percentage in target year

256,711

Figure or percentage in reporting year

454,378

% of target achieved [auto-calculated]

23.0001830853

Target status in reporting year

Underway

Is this target part of an emissions target?

The impact of reaching this target is partly linked with our CO2 emissions target (target Int1). Indeed, reducing cullet being sent to landfill by recycling it into the glass ovens, decreases energy consumption and related CO2 emissions. Energy consumption is reduced by 3% when the percentage of cullet is increased from 20% to 30% of raw materials.

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

Please explain (including target coverage)

Saint-Gobain has set mid-term objectives to reduce non-recovered waste by 50% by 2025 compared to 2010, at iso-production. We have achieved a 11,5% reduction over 2010-2019.

Intensity data provided has been multiplied by 10power6 to fit with CDP questionnaire format

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	49	
To be implemented*	0	0
Implementation commenced*	14	2,352
Implemented*	5	17,255
Not to be implemented	0	0

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Energy efficiency in production processes
Waste heat recovery

Estimated annual CO2e savings (metric tonnes CO2e)

7,700

Scope(s)

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

1,250,000

Investment required (unit currency – as specified in C0.4)

5,000,000

Payback period

4-10 years

Estimated lifetime of the initiative

16-20 years

Comment

1,2 MW ORC installation for electrical generation

Initiative category & Initiative type

Energy efficiency in production processes

Waste heat recovery

Estimated annual CO2e savings (metric tonnes CO2e)

4,800

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

827,000

Investment required (unit currency – as specified in C0.4)

7,000,000

Payback period

4-10 years

Estimated lifetime of the initiative

16-20 years

Comment

1,2 MW ORC installation for heating generation

Initiative category & Initiative type

Energy efficiency in production processes

Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)

3,882

Scope(s)

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

29,270

Investment required (unit currency – as specified in C0.4)

13,700

Payback period

<1 year

Estimated lifetime of the initiative

16-20 years

Comment

Engineering & Innovative Solutions (heat recovery, adiabatic cooling), Horizontal deployment of Global Solutions, Energy Management Controls, OEE Improvements

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Initiative category & Initiative type

Energy efficiency in production processes

Waste heat recovery

Estimated annual CO2e savings (metric tonnes CO2e)

494

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

62,864

Investment required (unit currency – as specified in C0.4)

41,905

Payback period

<1 year

Estimated lifetime of the initiative

16-20 years

Comment

The heat recovery system recovers waste heat at the areas of the glass cooling. It is then redirected to the store.

Initiative category & Initiative type

Energy efficiency in production processes

Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)

379

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

50,519

Investment required (unit currency – as specified in C0.4)

0

Payback period

<1 year

Estimated lifetime of the initiative

Ongoing

Comment

IMPROVING DRYER GAS RATIO

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Compliance with regulatory requirements/standards	Compliance with regulatory requirements is of course a key driver to invest in emissions reduction activities. The Corporate Legal Department ensures general environmental regulatory watch while the Corporate Environment, Health and Safety Department works on anticipating the specific climate change regulations and assessing the related impacts on the Group activities. At asset level, the facility EHS representatives are informed by their Legal and Tax Department about any new law or regulation related to environment, including climate change. Saint-Gobain places all its sites in a phase of continuous improvement. In this respect, they aim to identify and evaluate the Best Available Techniques (BAT) and Practices Available and then progressively upgrade them at an economically acceptable cost, in accordance with the Group's environmental vision. A BAT deployment plan is defined, updated annually and included in the three-year strategic plan.
Dedicated budget for energy efficiency	The Group has defined research and development programs to especially improve the energy efficiency of our manufacturing processes such as our "Innovative Furnaces and Glass" program. We also have a "Green Chemistry" program that may improve energy efficiency through raw material management and above all the "Improving our CO2 footprint» program aiming to coordinate and expand research and development efforts devoted to improving manufacturing processes with a view to reducing their greenhouse gas emissions. In total, we invested 80,9 million € in 2019 in our

	environment cross-business R&D programs. We are also leading actions on sites to reach our target of minus 15% energy consumption in 2025 like the Tip check deployment (audits regarding industrial tools insulation), specific energy investments (as the Glass activity program to invest in ORC turbines to maximize energy efficiency by limiting waste heat recovery). Finally, the Group is encouraging energy audits on its sites and is setting up a system for energy management drawing on ISO 50001 certification. At the end of 2019, 91 sites of the "environment concerned perimeter" were certified to ISO 50001.
Dedicated budget for low-carbon product R&D	The cross-functional R&D program, "Improvement in our CO2 footprint", also includes an energy component: recovery of lost energy and research into the use of new, low-carbon forms of energy (such as biogas or hydrogen). Saint-Gobain also initiated R&D programs to improve the environmental performance of its products portfolio. The "Low Carbon Cement-based Materials" program is one of the best example.
Dedicated budget for other emissions reduction activities	In addition of its environmental targets (CO2, energy, water discharges and non-recovered waste), the Group has set emissions target for dust, NOx and SO2 emissions (-20% in 2025 vs 2010 at iso-production). This leads to the allocation of R&D budget (for example through the program: "Innovative Furnaces and Glass") and to some investments in plant to upgrade/install depollution units.
Internal incentives/recognition programs	The Environment Emerald Awards, launched in 2010, is a ceremony that rewards Saint-Gobain sites for carrying out projects that reduce their environmental impact and/or that of their manufactured products. Those projects have to address one of the following environmental issues: climate change, water, waste, atmospheric emissions, other (such as biodiversity, soil, noise, smell or visual Impacts). As example, in 2019, two sites were awarded regarding energy and CO2: one plastic site in Mexico which adapted its energy consumption to its production needs and one insulation site in Romania which substituted fossil fuel by biomass.
Internal incentives/recognition programs	The CARE:4 label project aims to tackle four challenges: to reduce the carbon footprint of the Group's buildings, to improve the comfort and well-being at work of the Group's employees, to develop a customer-oriented culture through real-life laboratories and to inspire the market with success stories showcasing the Group's solutions. Each project's objectives are defined in alignment with the best local standard if there is one (i.e. Passivehaus in Germany, Effinergie in France) and based on a locally devised benchmark. In 2019, a new Saint-Gobain building received the CARE:4® label, bringing to 37 the number of buildings recognized internally for their energy performance. The new headquarters of the Group ("La Tour Saint-Gobain") are operational since beginning of 2020. It is one of the best towers of La Défense in terms of energy efficiency, the only one having triple certifications

	(HQE, BREEAM, LEED) and targeting the highest levels for each of them.
Internal incentives/recognition programs	From 2007, Saint-Gobain applies the World Class Manufacturing (WCM) program, an integrated management system designed to improve business performance by seeking industrial excellence in accordance with world standards. Its ambition is to enhance the performances of each industrial sites of the Group, through the implementation of high safety standards, high product quality, their economic performance, but also through their energy/environmental impact and involvement. On-site performance is measured by quantitative indicators but also through satisfaction assessments of all stakeholders involved, particularly the Group's employees and customers. In regards to energy/environmental standards, the WCM program is compliant with ISO 14001 and 50001. The Quality, Industrial Performance and Environment pillars contribute significantly towards reducing the Group's environmental footprint by reducing waste generated in production and water consumption and by optimizing energy efficiency; More than 5,800 managers are trained in the WCM program and 60% of employees of the industrial sites are involved in the application of this program.
Internal price on carbon	To speed up the Group's transition to low-carbon technologies, an internal carbon price is in place since beginning of 2016. It allows for the assessment of the current or potential impact of a regulatory carbon price on the Group's activities, identification of opportunities for growth in low-carbon sectors, refocusing investments in manufacturing and R&D, and ranking actions to reduce CO2 emissions. Saint-Gobain has set two internal carbon price levels. The first is fixed at €30 per ton and applies 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 more than 10 GWh. The second carbon price level of €100 per ton is used for R&D investment in breakthrough technology. This price level is of demonstrable value in supporting low-carbon R&D projects in particular.
Employee engagement	The Sustainable Development department organizes every two years a day to sensibilize all the employees to Environment, Security and Hygiene through workshops. We also launched the initiative "Big little moves" which is a guidebook and also a group on Saint Gobain's internal online portal with all environmental friendly actions which can be easily implemented on every Saint Gobain's sites. Everyone can share their best practices on the online group and can be featured in the actionbook. Since 2017, more than 2230 top managers have seen CO2 emission reduction target (as well as 2 other CSR criteria) being part of the evaluation of their remuneration bonus.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.

Level of aggregation

Company-wide

Description of product/Group of products

The products considered in the calculation are insulation products for the exterior walls (opaque and glazed) of a building: -Glass wool, stone wool and expanded polystyrene (EPS) insulation -“Low-e” insulating glazing. Other products used for fire protection, industrial heating systems, partition walls, interior design, decoration, etc. are not included in the calculations. The sales data considered are those of the calendar year 2016. The calculation only covers energy savings made on heating requirements and excludes cooling and air-conditioning gains.

Are these low-carbon product(s) or do they enable avoided emissions?

Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify

EY and Saint-Gobain methodology

% revenue from low carbon product(s) in the reporting year

80

Comment

The products sold worldwide in 2016 allowed an avoidance of 1251.1 million tons eq CO2 over their entire lifetime. The construction of the calculation methodology together with the selection of different calculation parameters were made in association with EY’s Sustainable Performance & Transformation department. GHG net saving is calculated as the difference between: - GHG emission savings obtained by using Saint-Gobain-type products compared to the use of a reference product - Emissions associated with the lifecycle of the Saint-Gobain product in question. WHERE: -The baseline for calculating the gain is the absence of insulation, ie non insulated wall or a simple or double glazing without coating. -The emissions related to the Saint-Gobain product’s lifecycle are available via the LCA models developed by Saint-Gobain, or directly in the Environmental Product Declarations (EPD). Products sold and installed in 2016 will enable savings over a period which exceeds one year. The period thus considered is

based on the reference service life used for the lifecycle assessment of the insulation products considered, namely: -30 years for glazing -50 years for wall insulation products. During three months' use the Group's solutions, on average offset production-related emissions. Beyond those three months, the savings continue to accumulate. The % of revenues provided corresponds to our % of sales linked to habitat products.

Level of aggregation

Group of products

Description of product/Group of products

SageGlass® is an electronically tintable glass for windows, skylights and curtain walls.

Are these low-carbon product(s) or do they enable avoided emissions?

Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify

EY and Saint-Gobain methodology

% revenue from low carbon product(s) in the reporting year

Comment

SageGlass® is highly energy efficient to operate, using less energy than necessary to power a 60-watt incandescent light bulb to control 2,000 square feet of SageGlass® glazing. With 20% cooling energy savings, 30% and up to 60% lighting reduction, SageGlass® glazing achieves increasing levels of energy performance, beyond the prerequisite standards.

Level of aggregation

Group of products

Description of product/Group of products

Panoramic lightweight windshields

Are these low-carbon product(s) or do they enable avoided emissions?

Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify

EY and Saint-Gobain methodology

% revenue from low carbon product(s) in the reporting year

Comment

The weight of the windshield has been reduced by 30%, allowing to reduce the energy consumption of the equipped vehicles. For instance, SGS Coolcoat windshields have approximately twice the performance as today's heat-reflecting products. The amount of heat entering a car with green tinted standard glazing is 65%, whereas it is only 40% with CoolCoat. Consequently, the interior stays cooler, the air conditioning runs less and comfortable temperatures are reached faster. SGS CoolCoat reduces the AC load and saves fuel by about 0.1 liter per 100 km corresponding to 1.6 grams CO2 per km.

Level of aggregation

Group of products

Description of product/Group of products

Internal thermal insulation

Are these low-carbon product(s) or do they enable avoided emissions?

Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify

EY and Saint-Gobain methodology

% revenue from low carbon product(s) in the reporting year

Comment

Isoduo 36 is a good example being the first composite insulation material with wood fiber reinforced with glass wool. Isoduo 36 contains a low quantity of binder and 40% of recycled glass. Isoduo 36 saves 130 times more energy than conventional products during its entire lifetime.

Level of aggregation

Group of products

Description of product/Group of products

Plaster board insulation solutions

Are these low-carbon product(s) or do they enable avoided emissions?

Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify

EY and Saint-Gobain methodology

% revenue from low carbon product(s) in the reporting year

Comment

For example, Rigitone Climafit boards have a unique thermal conductivity level of 0.52 W/(m · K) in accordance with DIN EN 12664. This increases the efficiency of the temperature control effect in the magnitude of 15 - 35% (in watts). Climafit ceiling boards also offer the usual advantages of Rigips boards: they are easy to install, highly flexible, tested for building biology aspects, clean and environmentally friendly.

Level of aggregation

Group of products

Description of product/Group of products

External thermal insulation

Are these low-carbon product(s) or do they enable avoided emissions?

Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify

EY and Saint-Gobain methodology

% revenue from low carbon product(s) in the reporting year

Comment

In the mortars business, ETICS (External Thermal Insulation Compounds System) is an insulating solution for the building envelope. Weber ETICS provides active insulation by preventing heat flow through walls and around windows, doors and other openings. The product cuts energy consumption and CO2 emissions from heating and cooling.

Level of aggregation

Group of products

Description of product/Group of products

Energy Evaluation Services

Are these low-carbon product(s) or do they enable avoided emissions?

Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify

EY and Saint-Gobain methodology

% revenue from low carbon product(s) in the reporting year

Comment

The entities distributing our building products also provide innovative services such as Cap Renov+, a simulator that provides the option of immediate energy efficiency evaluation and calculation of the tax incentives for which the end customer may be eligible.

C5. Emissions methodology

C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

Scope 1

Base year start

January 1, 2010

Base year end

December 31, 2010

Base year emissions (metric tons CO2e)

12,976,886

Comment

Scope 2 (location-based)

Base year start

January 1, 2010

Base year end

December 31, 2010

Base year emissions (metric tons CO2e)

4,461,638

Comment

Scope 2 (market-based)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

Bilan Carbone
European Union Emission Trading System (EU ETS): The Monitoring and Reporting Regulation (MMR) – General guidance for installations
IEA CO2 Emissions from Fuel Combustion
IPCC Guidelines for National Greenhouse Gas Inventories, 2006
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
Other, please specify
see next question

C5.2a

(C5.2a) Provide details of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

For our reporting we are following the recommendations given by the GRI G4.

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)

8,051,569

Comment

Our scope 1 emissions are linked to the energy use as well as the consumption of carbonated raw materials.

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Scope 2, market-based

We have operations where we are able to access electricity supplier emission factors or residual emissions factors, but are unable to report a Scope 2, market-based figure

Comment

We use a market-based approach only for purchased green electricity whenever we have a Renewable Energy Certificate.

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based

2,707,306

Comment

Our scope 2 emissions are mainly linked to the consumption of electricity and steam.

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

No

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status

Relevant, calculated

Metric tonnes CO2e

11,379,853

Emissions calculation methodology

Activity data come from the strategical raw materials of the Group. It also includes goods purchased by the Distribution. Emission factors are the most reliable ones known for consideration at worldwide level.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

In 2019, the Group has updated its Scope 3 evaluation, using 2017 as reference, and making the methodology and data more robust for each category. This explains the difference with the previous years CDP reporting.

Capital goods

Evaluation status

Relevant, calculated

Metric tonnes CO2e

53,813

Emissions calculation methodology

Activity data come from data being easily accessible. Emission factors are the most reliable ones known for consideration at worldwide level.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

In 2019, the Group has updated its Scope 3 evaluation, using 2017 as reference, and making the methodology and data more robust for each category. This explains the difference with the previous years CDP reporting.

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status

Relevant, calculated

Metric tonnes CO2e

2,936,344

Emissions calculation methodology

Saint-Gobain Environmental reporting is able to provide energy consumptions for the reporting period. Emission factors are the most reliable ones known for consideration at national or worldwide level.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

In 2019, the Group has updated its Scope 3 evaluation, using 2017 as reference, and making the methodology and data more robust for each category. This explains the difference with the previous years CDP reporting.

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

2,531,767

Emissions calculation methodology

For industry, a financial emission factor in kgCO2/kEUR for each transportation type has been employed to calculate the carbon emissions directly from the financial activity data provided.

For distribution, worldwide extrapolation data is based on three French distribution companies operating for Saint-Gobain Industry which provided the distance travelled by trucks to Distribution entities during the year 2017.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

47

Please explain

In 2019, the Group has updated its Scope 3 evaluation, using 2017 as reference, and making the methodology and data more robust for each category. This explains the difference with the previous years CDP reporting.

Waste generated in operations

Evaluation status

Relevant, calculated

Metric tonnes CO2e

346,228

Emissions calculation methodology

Saint-Gobain Environmental reporting is able to provide waste production for the reporting period (waste landfilled or incinerated without energy recovery). Emission factors are the most reliable ones known for consideration at worldwide level.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

In 2019, the Group has updated its Scope 3 evaluation, using 2017 as reference, and making the methodology and data more robust for each category. This explains the difference with the previous years CDP reporting.

Business travel

Evaluation status

Relevant, calculated

Metric tonnes CO2e

257,490

Emissions calculation methodology

Activity data come from our central travel agency (air, train, car rentals). Emission factors are the most reliable ones known for consideration at worldwide level. The emission factor associated with a hotel night is estimated based on internal data from the expert consultant who helped to update the scope 3 study.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

In 2019, the Group has updated its Scope 3 evaluation, using 2017 as reference, and making the methodology and data more robust for each category. This explains the difference with the previous years CDP reporting.

Employee commuting

Evaluation status

Relevant, calculated

Metric tonnes CO2e

166,377

Emissions calculation methodology

Saint-Gobain Safety reporting is able to provide employees data for the reporting period. Internal data from the expert consultant who helped to update the scope 3 study was used to set up per country: the share of employees per transportation modes, the emission factors for each transportation mode, the average number of days worked per country, the average distance travelled per day per employee.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

In 2019, the Group has updated its Scope 3 evaluation, using 2017 as reference, and making the methodology and data more robust for each category. This explains the difference with the previous years CDP reporting.

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

This category includes emissions from the operation of assets that are leased by the company and not already included in the company’s scope 1 or scope 2 inventories.

This category is mostly applicable to companies that operate leased assets (i.e., lessees), but can also be applicable to all companies leasing assets. Following our 2019 study, this is not the case of Saint-Gobain.

Downstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

6,192,139

Emissions calculation methodology

For industry, activity data is based on our products sales considering the most relevant way of transportation (type, distance, filling rates). Emission factors are the most reliable ones known for consideration at worldwide level.
For distribution, worldwide extrapolation data is based on the activity data provided by the distribution companies operating for Saint-Gobain in France.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

67

Please explain

In 2019, the Group has updated its Scope 3 evaluation, using 2017 as reference, and making the methodology and data more robust for each category. This explains the difference with the previous years CDP reporting.

Processing of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO2e

225,454

Emissions calculation methodology

Activity data (production, energy and water uses) were collected for the most relevant products. It also includes goods sold by the Distribution. Emission factors are the most reliable ones known for consideration at worldwide level.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

In 2019, the Group has updated its Scope 3 evaluation, using 2017 as reference, and making the methodology and data more robust for each category. This explains the difference with the previous years CDP reporting.

Use of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO2e

106,817,603

Emissions calculation methodology

Activity data (production and related energy uses) were collected for the most relevant products. It also includes goods sold by the Distribution. Emission factors are the most reliable ones known for consideration at worldwide level.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

In 2019, the Group has updated its Scope 3 evaluation, using 2017 as reference, and making the methodology and data more robust for each category. This explains the difference with the previous years CDP reporting.
It has to be highlighted that car windshields are considered as indirect use-phase emissions and therefore not considered by the SBT initiative for setting-up scope 3 emissions targets.
As comparison, the Group's insulation solutions produced and sold throughout the World in 2016 have generated, across their lifespan, a potential cumulated net prevention of over 1,200 million tons equivalent CO2; indeed, in partnership with EY, Saint-Gobain developed in 2015 a methodology that allows for the estimation of greenhouse gas emissions prevented thanks to the utilization of its insulation solutions in Europe. The calculations realized
with 2014 sales numbers were updated in 2017 with 2016 sales; the scope of Europe was enlarged to the world.
These updating efforts have permitted to confirm that after three months of use on average, the Group's insulation solutions compensate the emissions linked to their production. Beyond these three months, the gains continue to accumulate.

End of life treatment of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO2e

677,650

Emissions calculation methodology

Activity data were collected for the most relevant products. It also includes goods sold by the Distribution. Emission factors are the most reliable ones known for consideration at worldwide level.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

In 2019, the Group has updated its Scope 3 evaluation, using 2017 as reference, and making the methodology and data more robust for each category. This explains the difference with the previous years CDP reporting.

Downstream leased assets

Evaluation status

Relevant, calculated

Metric tonnes CO2e

84

Emissions calculation methodology

Activity data were collected for the most relevant assets located in France. Emission factors are the most reliable ones known for consideration at national level.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

In 2019, the Group has updated its Scope 3 evaluation, using 2017 as reference, and making the methodology and data more robust for each category. This explains the difference with the previous years CDP reporting.

Franchises

Evaluation status

Relevant, calculated

Metric tonnes CO2e

5,277

Emissions calculation methodology

Activity data were collected for the most relevant franchises located in Europe. Emission factors are the most reliable ones known for consideration at national level.

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

In 2019, the Group has updated its Scope 3 evaluation, using 2017 as reference, and making the methodology and data more robust for each category. This explains the difference with the previous years CDP reporting.

Investments

Evaluation status

Relevant, calculated

Metric tonnes CO2e

1,063,532

Emissions calculation methodology

Activity data come from our corporate finance department. Only the shares detained by Saint-Gobain are accounted in this category and multiplied by the adapted emission factor. Sectorial financial emission factors have been employed (in kgCO2 eq/kEuro).

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

In 2019, the Group has updated its Scope 3 evaluation, using 2017 as reference, and making the methodology and data more robust for each category. This explains the difference with the previous years CDP reporting.

Other (upstream)

Evaluation status

Please explain

Other (downstream)

Evaluation status

Please explain

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?

No

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure

0.00025

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

10,758,875

Metric denominator

unit total revenue

Metric denominator: Unit total

42,573,000,000

Scope 2 figure used

Location-based

% change from previous year

10.7

Direction of change

Decreased

Reason for change

Improved CO2 performance and higher revenues. Our global Scope 1+2 emissions decreased by 7,8% between 2018 and 2019 whereas our revenues increased by 1,9% over the same period of time. The decrease of 7,8% is mainly due to energy efficiency (such as the installation of ORC turbines to recover heat losses as described as emission reduction initiatives reported in C4.3b) as well as to increase of purchased renewable electricity through green certificates or Power Purchase Agreements in the countries reported in C.7.5.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?

No

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO2e)
Albania	82
Algeria	0

Argentina	20,975
Australia	284
Austria	31,363
Belgium	39,950
Bhutan	25,951
Botswana	170
Brazil	497,014
Bulgaria	528
Canada	184,198
Chile	94
China	588,900
Colombia	98,866
Czechia	181,713
Denmark	132,806
Egypt	153,777
Estonia	273
Finland	65,960
France	1,085,246
Germany	780,792
Ghana	1
Greece	4,259
Hungary	24,063
India	616,997
Indonesia	37,623
Ireland	53,694
Italy	174,213
Japan	57,051
Jordan	0
Kuwait	11,814
Latvia	0
Lebanon	1,065
Lithuania	458
Luxembourg	121
Malaysia	15,921
Mexico	278,404

Morocco	41
Netherlands	62,331
New Zealand	0
Norway	83,877
Oman	0
Peru	0
Poland	373,729
Portugal	39,689
Qatar	284
Romania	113,952
Russian Federation	195,911
Saudi Arabia	2,874
Serbia	568
Singapore	0
Slovakia	2,166
Slovenia	899
South Africa	33,629
Democratic People's Republic of Korea	16,384
Spain	362,242
Sweden	54,020
Switzerland	8,590
United Republic of Tanzania	12,253
Thailand	54,986
Turkey	86,778
United Arab Emirates	17,040
United Kingdom of Great Britain and Northern Ireland	382,784
United States of America	948,707
Venezuela (Bolivarian Republic of)	271
Viet Nam	29,696
Zimbabwe	3,245
Angola	0

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By activity

C7.3c

(C7.3c) Break down your total gross global Scope 1 emissions by business activity.

Activity	Scope 1 emissions (metric tons CO2e)
Glass Activity	3,975,417
Pipe Activity	949,879
Other	3,126,273

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/region.

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
Albania	2		327	
Algeria	0		0	
Argentina	16,054		45,727	
Australia	1,593		2,144	
Austria	6,985		30,165	551
Belgium	4,160		24,398	
Bhutan	2,403		82,875	
Botswana	26		29	
Brazil	20,735		526,561	230,774
Bulgaria	520		845	
Canada	27,997		148,444	
Chile	423		973	
China	302,802		486,947	
Colombia	8,255		45,355	
Czechia	135,149		270,407	
Denmark	22,700		135,085	101,508
Egypt	18,903		42,787	
Estonia	5,588		6,479	
Finland	35		119,776	118,463
France	83,126		1,213,898	7,625
Germany	250,384		666,998	19,809

Ghana	0		0	
Greece	1,096		2,063	
Hungary	6,550		9,075	
India	250,615		384,835	25,458
Indonesia	10,672		13,575	
Ireland	1,035		25,721	22,985
Italy	49,665		200,409	47,923
Japan	45,992		98,345	
Jordan	0		0	
Kuwait	36,821		61,874	
Latvia	0		0	
Lebanon	30		39	
Lithuania	64		811	
Luxembourg	348		2,013	
Malaysia	5,945		9,147	
Mexico	173,996		384,772	
Morocco	24,413		35,566	
Netherlands	28,101		64,304	
New Zealand	0		0	
Norway	0		108,025	108,025
Oman	0		0	
Peru	0		0	
Poland	318,329		448,730	
Portugal	11,676		32,209	
Qatar	145		299	
Romania	40,421		102,138	
Russian Federation	43,771		124,881	
Saudi Arabia	9,729		13,725	
Serbia	706		897	
Singapore	0		0	
Slovakia	714		4,465	
Slovenia	43		164	
South Africa	33,028		36,714	
Democratic People's Republic of Korea	69,669		129,665	
Spain	3,276		366,852	355,490

Sweden	0		160,920	160,920
Switzerland	1,564		58,827	3,752
United Republic of Tanzania	471		1,559	
Thailand	36,904		78,061	
Turkey	43,519		94,361	
United Arab Emirates	6,387		9,704	
United Kingdom of Great Britain and Northern Ireland	0		325,079	325,079
United States of America	530,491		1,194,292	
Venezuela (Bolivarian Republic of)	137		476	
Viet Nam	12,309		34,177	
Zimbabwe	835		928	
Angola	0		0	

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By activity

C7.6c

(C7.6c) Break down your total gross global Scope 2 emissions by business activity.

Activity	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Glass Activity	1,061,762	
Pipe Activity	96,416	
Other	1,549,128	

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Decreased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	57,156	Decreased	0.5	In 2019, our change renewable energy consumption decreased the combined scope 1 & 2 emissions by approximately 57156 tCO2e compared to 2018. Our total scope 1 and 2 emissions in 2018 were 11,66MtCO2e, so we estimated a decrease of 0.5% through (0.057156/11.66)*100=0.5%
Other emissions reduction activities	498,503	Decreased	4.3	In 2019, our emissions reduction actions reduced the combined scope 1 & 2 emissions by approximately 498503 tCO2e compared to 2018. Our total scope 1 and 2 emissions in 2018 were 11,66MtCO2e, so we estimated a decrease of 4.3% through (0,498503/11.66)*100=4.3%
Divestment				
Acquisitions				
Mergers				
Change in output	349,800	Decreased	3	In 2019, our change in output decreased the combined scope 1 & 2 emissions by approximately 349800 tCO2e compared to 2018. Our total scope 1 and 2 emissions in 2018 were 11,66MtCO2e, so we estimated a decrease of 3% through (0.349800/11.66)*100=3%
Change in methodology				
Change in boundary				
Change in physical operating conditions				

Unidentified				
Other				

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Location-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 5% but less than or equal to 10%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	Yes
Consumption of purchased or acquired steam	Yes
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh

Consumption of fuel (excluding feedstock)	LHV (lower heating value)	914,803	32,578,939	33,493,742
Consumption of purchased or acquired electricity		1,528,362	6,846,449	8,374,811
Consumption of purchased or acquired heat		0	12,173	12,173
Consumption of purchased or acquired steam		0	82,931	82,931
Consumption of self-generated non-fuel renewable energy		10,447		10,447
Total energy consumption		2,453,612	39,520,492	41,974,104

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	Yes
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	Yes

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Fuels (excluding feedstocks)

Charcoal

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

914,803

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

914,803

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

0

Unit

kg CO2e per MWh

Emissions factor source

IPCC 2006 guidelines for National Greenhouse Gas Inventories

Comment

Fuels (excluding feedstocks)

Coke

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

2,359,173

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

2,358,520

MWh fuel consumed for self-generation of steam

653

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

385

Unit

kg CO2e per MWh

Emissions factor source

IPCC 2006 guidelines for National Greenhouse Gas Inventories

Comment

Fuels (excluding feedstocks)

Diesel

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

512,314

MWh fuel consumed for self-generation of electricity

20,580

MWh fuel consumed for self-generation of heat

491,734

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

267

Unit

kg CO2 per MWh

Emissions factor source

IPCC 2006 guidelines for National Greenhouse Gas Inventories

Comment

Fuels (excluding feedstocks)

Heavy Gas Oil

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

1,580,608

MWh fuel consumed for self-generation of electricity

12,758

MWh fuel consumed for self-generation of heat

1,540,648

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-cogeneration or self-trigeneration

27,202

Emission factor

279

Unit

kg CO2 per MWh

Emissions factor source

IPCC 2006 guidelines for National Greenhouse Gas Inventories

Comment

Fuels (excluding feedstocks)

Lignite Coal

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

1,354,994

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

1,354,994

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

354

Unit

kg CO2e per MWh

Emissions factor source

IPCC 2006 guidelines for National Greenhouse Gas Inventories

Comment

Fuels (excluding feedstocks)

Liquefied Petroleum Gas (LPG)

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

528,889

MWh fuel consumed for self-generation of electricity

55

MWh fuel consumed for self-generation of heat

528,754

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-cogeneration or self-trigeneration

80

Emission factor

227

Unit

kg CO2e per MWh

Emissions factor source

IPCC 2006 guidelines for National Greenhouse Gas Inventories

Comment

Fuels (excluding feedstocks)

Natural Gas

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

26,242,961

MWh fuel consumed for self-generation of electricity

128,046

MWh fuel consumed for self-generation of heat

25,730,471

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-cogeneration or self-trigeneration

384,444

Emission factor

202

Unit

kg CO2e per MWh

Emissions factor source

IPCC 2006 guidelines for National Greenhouse Gas Inventories

Comment

C8.2d

(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	206,696	75,023	107,549	10,447
Heat	32,919,924	32,919,924	914,803	914,803
Steam	653	0	0	0
Cooling	0	0	0	0

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

doc de référence 2019 EN.pdf

Page/ section reference

Pages 347-352

Relevant standard

Other, please specify

Compagnie Nationale des Commissaires aux Comptes (CNCC)+ISAE3000

Proportion of reported emissions verified (%)

90

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Scope 2 approach

Scope 2 location-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

doc de référence 2019 EN.pdf

Page/ section reference

Pages 347-352

Relevant standard

Other, please specify

Compagnie Nationale des Commissaires aux Comptes (CNCC)+ISAE3000

Proportion of reported emissions verified (%)

90

C10.1c

(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Scope 3 category

Scope 3 (upstream & downstream)

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

FY19_St Gobain_Lettre bilan travaux GES scope 3_final_signée.pdf

Page/section reference

see attached letter

Relevant standard

ISAE3000

Proportion of reported emissions verified (%)

90

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

Yes

C10.2a

(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C4. Targets and performance	Progress against emissions reduction target	Compagnie Nationale des Commissaires aux Comptes (CNCC)+ISAE3000	We ask from our auditors, in their mission statement, to verify as well our progress against our set of internal targets (such as the “Int1” target) as well as the year on year variation of our emissions. See registration document page 349-350 1

[1]doc de référence 2019 EN.pdf

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

Yes

C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.

BC carbon tax
Beijing pilot ETS
California CaT - ETS
EU ETS

France carbon tax
Korea ETS
Québec CaT - ETS
Shanghai pilot ETS
Other carbon tax, please specify
Ontario carbon tax
Other carbon tax, please specify
Alberta carbon tax

C11.1b

(C11.1b) Complete the following table for each of the emissions trading schemes you are regulated by.

Beijing pilot ETS

% of Scope 1 emissions covered by the ETS
0

% of Scope 2 emissions covered by the ETS
0.6

Period start date
January 1, 2019

Period end date
December 31, 2019

Allowances allocated
15,713

Allowances purchased
0

Verified Scope 1 emissions in metric tons CO2e
93

Verified Scope 2 emissions in metric tons CO2e
15,620

Details of ownership
Facilities we own and operate

Comment
Provided data are given for the concerned reporting year. Previous years were given in previous CDP questionnaires. Provided emissions are verified later in the year compared to CDP timeline.

California CaT

% of Scope 1 emissions covered by the ETS

0.7

% of Scope 2 emissions covered by the ETS

0.7

Period start date

January 1, 2019

Period end date

December 31, 2019

Allowances allocated

33,844

Allowances purchased

0

Verified Scope 1 emissions in metric tons CO2e

56,982

Verified Scope 2 emissions in metric tons CO2e

18,473

Details of ownership

Facilities we own and operate

Comment

Provided data are given for the concerned reporting year. Previous years were given in previous CDP questionnaires.

EU ETS

% of Scope 1 emissions covered by the ETS

45.1

% of Scope 2 emissions covered by the ETS

0

Period start date

January 1, 2019

Period end date

December 31, 2019

Allowances allocated

3,320,898

Allowances purchased

0

Verified Scope 1 emissions in metric tons CO2e

3,633,098

Verified Scope 2 emissions in metric tons CO2e

0

Details of ownership

Facilities we own and operate

Comment

Provided data are given for the concerned reporting year. Previous years were given in previous CDP questionnaires.
Nevertheless in 2019, two years have been allocated for our plants located in the UK.

Korea ETS

% of Scope 1 emissions covered by the ETS

0.2

% of Scope 2 emissions covered by the ETS

0.7

Period start date

January 1, 2019

Period end date

December 31, 2019

Allowances allocated

33,685

Allowances purchased

0

Verified Scope 1 emissions in metric tons CO2e

15,461

Verified Scope 2 emissions in metric tons CO2e

19,553

Details of ownership

Facilities we own and operate

Comment

Provided data are given for the concerned reporting year. Previous years were given in previous CDP questionnaires.
Provided emissions are verified later in the year compared to CDP timeline.

Québec CaT

% of Scope 1 emissions covered by the ETS

0.5

% of Scope 2 emissions covered by the ETS

0

Period start date

January 1, 2019

Period end date

December 31, 2019

Allowances allocated

26,116

Allowances purchased

0

Verified Scope 1 emissions in metric tons CO2e

38,976

Verified Scope 2 emissions in metric tons CO2e

16

Details of ownership

Facilities we own and operate

Comment

Provided data are given for the concerned reporting year. Previous years were given in previous CDP questionnaires.

Shanghai pilot ETS

% of Scope 1 emissions covered by the ETS

0.3

% of Scope 2 emissions covered by the ETS

2.8

Period start date

January 1, 2019

Period end date

December 31, 2019

Allowances allocated

113,802

Allowances purchased

7,800

Verified Scope 1 emissions in metric tons CO2e

22,864

Verified Scope 2 emissions in metric tons CO2e

74,844

Details of ownership

Facilities we own and operate

Comment

Provided data are given for the concerned reporting year. Previous years were given in previous CDP questionnaires.
Provided emissions are verified later in the year compared to CDP timeline.

C11.1c

(C11.1c) Complete the following table for each of the tax systems you are regulated by.

BC carbon tax

Period start date

January 1, 2019

Period end date

December 31, 2019

% of total Scope 1 emissions covered by tax

0.4

Total cost of tax paid

656,888

Comment

France carbon tax

Period start date

January 1, 2019

Period end date

December 31, 2019

% of total Scope 1 emissions covered by tax

0.3

Total cost of tax paid

998,000

Comment

Other carbon tax, please specify

Period start date

January 1, 2019

Period end date

December 31, 2019

% of total Scope 1 emissions covered by tax

0.5

Total cost of tax paid

57,522

Comment

Data for Ontario

Other carbon tax, please specify

Period start date

January 1, 2019

Period end date

December 31, 2019

% of total Scope 1 emissions covered by tax

0.4

Total cost of tax paid

262,212

Comment

Data for Alberta

C11.1d

(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

Our general strategy is to reduce our CO2 emissions through several tools: CO2 targets at Group level, energy management systems and WCM, R&D programs, investments, use of low carbon energy. We purchase allowances for the remaining gap. This strategy applies at Group level, that means not only for systems to which we participate but also for the ones that we shall participate in the future. The answer to question C4.3b provides several examples of energy efficient projects that we have implemented in 2019. In 2019, we have purchased green electricity in several countries such the ones described in question C.7.5. At the end of 2019, 91 sites of the “environment concerned perimeter” were certified to ISO 50001.

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?

No

C11.3

(C11.3) Does your organization use an internal price on carbon?

Yes

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Objective for implementing an internal carbon price

Drive low-carbon investment

GHG Scope

Scope 1

Scope 2

Application

Internal carbon price of 30€/ton applies 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 more than 10 GWh. The internal carbon price is applicable by all entities in each of the 68 countries where we operate. They can apply a higher rate to help drive the transition and weight on the investment decisions. This internal price of carbon is public.

Actual price(s) used (Currency /metric ton)

30

Variance of price(s) used

No variance

Type of internal carbon price

Shadow price

Impact & implication

The internal carbon price mechanism, implemented at the beginning of 2016, has the objective of accelerating the transition to low-carbon technologies at Group level. The internal carbon price covers scope 1 and scope 2 CO2 emissions of the Group. The efficiency of the carbon price for investment is highly dependent of the project specificity. In any case the carbon price has a strong impact in terms of awareness of CO2 cost within the Group.

Objective for implementing an internal carbon price

Drive low-carbon investment

GHG Scope

Scope 1

Scope 2
Scope 3

Application

The other internal price of carbon is much higher (100€ per ton) and is used to guide R&D budgets with a long-term orientation. The internal carbon price is applicable by all entities in each of the 68 countries where we operate. They can apply a higher rate to help drive the transition and weight on the investment decisions. This internal price of carbon is public

Actual price(s) used (Currency /metric ton)

100

Variance of price(s) used

No variance

Type of internal carbon price

Shadow price

Impact & implication

The internal carbon price mechanism, implemented at the beginning of 2016, has the objective of accelerating the transition to low-carbon technologies at Group level and for R&D to invest in breakthrough low-carbon technology. For R&D, the internal carbon price covers scope 1, scope 2 and 3 CO2 emissions of the Group. This price level has already demonstrated value in supporting low-carbon R&D projects in particular.

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers
Yes, our customers

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement

Compliance & onboarding

Details of engagement

Other, please specify

Charter with climate change principles

% of suppliers by number

19.1

% total procurement spend (direct and indirect)

77.2

% of supplier-related Scope 3 emissions as reported in C6.5

75

Rationale for the coverage of your engagement

45,443 suppliers signed our Responsible Purchasing Charter. They represent 77.2% of our spent and 19,1% of the total number of suppliers (238,185). We track these data through the R-Net online platform, a private website entirely dedicated to the subject of responsible purchasing. For scope 3 emissions, we made the hypothesis that 77.2% of our suppliers of the following categories (main categories being part of our SBT target) signed our charter: Purchase of goods and services, fuels and energy related activities and transportation.

Impact of engagement, including measures of success

Responsible purchasing is part of Saint-Gobain's responsible development policy. For both the industrial and distribution activities of Saint-Gobain, a common Suppliers Charter explains Saint-Gobain's requirements and suppliers' obligations in the area of corporate social responsibility. As measure of success, we can state that 45,443 suppliers signed our Responsible Purchasing Charter. An online platform called R-Net has been set up to facilitate responsible purchasing. Industrial activities suppliers have access to R-Net to acknowledge receipt of Supplier Charter of Saint-Gobain, electronically transmit essential proofs (timber certificates, quality certificates, ISO standards), answer self-assessment questionnaires, get all the information on Saint-Gobain's responsible purchasing directives and access to details of their CSR assessments. At the end of 2019,50,495 contacts of suppliers are registered on our online platform, 53,619 suppliers' subsidiaries are covered by a fulfilled questionnaire. About 64,2% of all suppliers which have answered to the questionnaire have notified that they have implemented in its production the necessary measurements to limit or even to remove greenhouse gas emissions.

Comment

Type of engagement

Information collection (understanding supplier behavior)

Details of engagement

Other, please specify

Collect information (sometimes annually)

% of suppliers by number

39.6

% total procurement spend (direct and indirect)

58.8

% of supplier-related Scope 3 emissions as reported in C6.5

9.4

Rationale for the coverage of your engagement

The responsible purchase program of our industrial activities is applicable to suppliers who represent more than 100k€ per year in spent and represent around 88% % of Saint-Gobain's spent. 4,978 of them are considered as potentially risky regarding CSR and 58.8% of them in spent (39.6% by number) have been concerned by documentation reviews and audits. For scope 3 emissions, we made the hypothesis that 9,7% of our suppliers (in spent) of the following categories (main categories being part of our SBT target) were concerned by documentation reviews and audits: Purchase of goods and services, fuels and energy related activities and transportation

Impact of engagement, including measures of success

The Group has set a target 2017-2021 of having evaluated the CSR performance of almost all reputable suppliers with CSR risk and annual sales of more than 100,000€ with the Group. Regarding CSR audits, the goal is to achieve about 100 audits per year for low initial CSR performance. These audits may lead to de-references if the necessary corrective plans are not implemented within the agreed deadlines. As measure of success, we can state that 1970 suppliers have been concerned by documentation reviews and audits by a third party. The suppliers with unsatisfactory grades to those CSR evaluations have to work to improve their overall performance according to the detailed scorecard evaluation recommendation. As action led to reduce our carbon footprint, we can mention the following: For Saint Gobain's industrial activities, a CO2 action plan was launched to reduce our scope 3 carbon footprint. We have identified two sectors which have the most Scope 3 emissions: purchased goods (raw material) and upstream transportation. For the raw materials, 2 of them are important contributors of our scope 3 carbon footprint. As an example, Industrial Mortars, the activity directly concerned by one of these raw materials, is working to reduce the carbon footprint of this material, mainly through raw materials substitution.

Comment

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement

Education/information sharing

Details of engagement

Run an engagement campaign to educate customers about the climate change impacts of (using) your products, goods, and/or services

% of customers by number

75

% of customer - related Scope 3 emissions as reported in C6.5

0

Please explain the rationale for selecting this group of customers and scope of engagement

These education/information/promotion actions are carried out for all our habitat activities that represent around 75% of our sales. The use of our products in that context helps to avoid emissions, meaning that there is no link with scope 3 emissions.

Impact of engagement, including measures of success

We can measure the success through the diversity and amount of the following initiatives that we have in the education domain. Among the training courses delivered by local teams, some are dedicated to energy efficiency and to the reduction of the environmental impact of buildings. The building distribution area is particularly active on that subject. In France, the POINT P network has implemented “Energy Efficiency” counters in over 130 agencies. Sellers receive specific training, and tools such as a simulator to evaluate a project’s energy efficiency are made available to customers. A training program on how 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 Certypro. In other countries, like the Netherlands, Norway or even Denmark, dedicated spaces are offered to installers and
individuals to provide them with advice and training in the realm of renewable énergies. Beyond building distribution, training structures are offered by country. They are open to craftsmen, installers, architects and other actors of the construction sector. They can also be associated with professional schools. In France, the Habitat France structure is committed to eight training centers for apprentices (CFA) for partnerships relative to the provision of training or for the accompaniment of instructors that answer to a center. A website dedicated to training called seformeravecsaint-gobain.com offers the possibility of training via e-learning or face-to-face. 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.

Type of engagement

Collaboration & innovation

Details of engagement

Run a campaign to encourage innovation to reduce climate change impacts

% of customers by number

17

% of customer - related Scope 3 emissions as reported in C6.5

99

Please explain the rationale for selecting this group of customers and scope of engagement

Eco-innovation applies to all our products. Related scope 3 emissions are all categories except business travels, employees commuting, upstream/downstream assets, franchises and investments. Size of engagement has been measured through our environment R&D expenses vs our total R&D expenses.

Impact of engagement, including measures of success

Our bond with our customers helps us better understand demand and develop innovative, high value-added products that contribute to reduce the environmental impact of buildings. A product is considered eco-innovative if it contributes to reduce the use of resources in buildings and infrastructure and/or if it has a reduced environmental impact across its life cycle. The industrial businesses are in charge of developing and promoting eco-innovative products and systems, while the building distribution raises awareness on them and trains clients. For glass activities, for example, we are working on low-weight glass for the automotive industry to reduce our Scope 3 emissions and our clients' Scope 1 emissions. The Group began to deliver training in eco-innovation in 2013. Today, eco-innovation is covered in the training provided for new research managers and for R&D project leaders. It is also covered by a specific one-day training course primarily for marketing and R&D teams; as measure of success, around 900 people have attended this session since it was launched.

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?

Direct engagement with policy makers

Trade associations

C12.3a

(C12.3a) On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Energy efficiency	Support	Saint Gobain has followed the progress of the 2016 EU Clean Energy Package for all Europeans very actively. In particular The Group has engaged at European and national levels to support the successful revisions of the Energy Efficiency Directive (EED) and the Energy Performance for Building Directive (EPBD), both completed in 2018. At European level, activities have	On the revision of the Energy Efficiency Directive (EED), Saint-Gobain has been supporting of an ambitious binding target for energy efficiency by 2030, as well as a solid scheme to support the deployment of energy efficiency obligation schemes for the period of 2021 to 2030, as these have a positive impact on energy renovation. Regarding the Energy Performance of Buildings Directive, Saint-Gobain

		notably included input and support to the position of our key partners, including EuroACE, EU-ASE, Eurima, Eurogypsum, Glass For Europe, the Renovate Europe Campaign, The World GBC Europe Regional Network, and the Coalition for Energy Savings. These positions were further explained and echoed at national level, notably through the national partners of the Renovate Europe Campaign. We have also engaged in supporting the implementation work for the EU Clean Energy Package, notably regarding the Long Term Renovation Strategies. In the second-half for 2019, the group engaged to stress the important role of energy efficiency in the European Green Deal.	has been a long-standing advocate of stronger national renovation strategies leading to implementing actions. Other key points of our position included a clear ambition for a near zero energy building stock (nZEB) by 2050, backed by concrete milestones for 2030 and 2040; evolving the Energy Performance Certificates (EPCs) into Building Renovation Passport; an adequate consideration of the role of measures improving the building envelope In 2019 we have engaged ahead of the institutional renewal at European level in order to make energy efficiency a focus point of the new Commission and Parliament priorities. The Group was also active in recalling the implementation of the Energy Efficiency First principle role in the European Green Deal.
Energy efficiency	Support	In France, Saint-Gobain has joined the “Commitment to Green Growth” programs set up by the authorities via the professional associations that it is a member of. The Commitment to Green Growth for flat glass signed by the trade associations in 2017 could lead to the collection and sorting of 80,000 tons of cullet per year in 2025 for the whole of the subsidiary in France.	The Flat Glass business optimizes its logistics to promote the recovery of cullet across the entire value chain where the Group is present and especially between glass processing sites (manufacturing windshields or windows, for example) and glass furnaces. The use of recycled raw materials in processes makes it possible to reduce energy consumption, particularly for glass fusion. 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 CO2 emissions (scope 1). The efforts made to transition to a circular economy will therefore have a positive effect on emissions.

Cap and trade	Support with minor exceptions	We are active in the discussions on EU-ETS, in particular to prepare for the period between 2021 and 2030. Saint-Gobain is engaged mostly through the sectoral associations representing its activities.	Through the national and European business associations, we have publicly expressed our position on the post 2020 reform of the EU-ETS Directive. The EU-ETS is a milestone of the EU Climate and Energy Policy and a necessary tool to reach -40% greenhouse gas emission reduction by 2030 (compared to 1990), while preserving the competitiveness of energy-intensive industries. Saint-Gobain supports: - The need for free and dynamic allocations and to address carbon leakage - The expansion of the Innovation Fund to support low carbon innovation in industrial sectors - The adaptation of the ETS Directive to changing economic conditions in order to provide the long-term visibility required to stimulate investment in low carbon technologies and processes.

C12.3b

(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?

Yes

C12.3c

(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.

Trade association

AFEP

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Representing more than 110 of the largest private groups operating in France, the Afep - French Association of Private Enterprises - participates in the public debate with the

aim of providing pragmatic responses to the development of a competitive French and European economy.

How have you influenced, or are you attempting to influence their position?

Saint-Gobain is a contributor to several work streams of AFEP, notably those related to climate and energy, energy efficiency and the circular economy. For example, Saint-Gobain has contributed actively to the debate on the circular economy in AFEP through its circular economy working group, and has repeated its support for a solid framework to drive circularity in the building sector. In 2019, AFEP published the updates of the AFEP 2017 report on circular economy, called “Trajectoires économie circulaire”- Suivi et nouveaux engagements 2019 des entreprises de l’AFEP – Décembre 2019.

Trade association

Green Building Councils

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association’s position

For many years, Saint-Gobain has been involved in local efforts to promote sustainable buildings by joining Green Building Councils (GBCs). These national associations of building market professionals and actors, present in over 100 countries, offer an effective dialogue platform to promote sustainable construction.

How have you influenced, or are you attempting to influence their position?

Saint-Gobain is proactively involved at 3 organizational levels of the World Green Building Council (WGBC) network: at international level, Saint-Gobain is one of the members of the Corporate Advisory Board of the WGBC and chairs it since mid 2017, renewed in 2019; at regional level, it is a partner of the European network of GBCs; and at country level, through its subsidiaries Saint-Gobain is member of 42 local GBCs. We are a sponsor of WorldGBC's Better Places for People campaign. Saint-Gobain also provides active support for a number of WGBC campaigns, like Advancing Net Zero (ANZ) which aims to promote and support the acceleration of net zero carbon buildings to 100% by 2050, notably through certification. In 2019 we have supported the WGBC work stream on embodied carbon, notably via the support of the Bring Embodied Carbon Upfront Report. We are strong support of the project Level(s), the voluntary European framework for sustainable construction. Developed by the European Commission in close collaboration with key players such as Green Building Councils, Level(s) will contribute to the sustainable transformation of the construction sector. Further to its work on 4 pilot projects, Saint-Gobain is fully engaged in supporting the integration of Level(s) into the European policy framework.

Trade association

EpE

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

EpE (Enterprises for the Environment) is a coalition of around 40 French and international companies in the industrial and services sectors committed to work together to improve the inclusion of environmental challenges into their strategy and day-to-day management. EpE addresses medium and long term policy issues like climate change. EpE gives its members a forum for discussion, within the business world itself, but also with NGOs, ministers, politicians, scientists and academics. Shared experience and practices lead to the publication of guides, books, methodologies and proposals for action.

How have you influenced, or are you attempting to influence their position?

The Chairman and Chief Executive Officer of the Group, is Vice President of "Entreprises pour l'Environnement" the French non-profit organization partner of the WBCSD (World Business Council for Sustainable Development). We participate in working groups, studying climate change, the environmental economy, and the links between the environment, health and biodiversity. Saint-Gobain actively participate to the publication of several EpE booklets on various themes, notably "Companies and Climate Change Adaptation", "Companies strategies for climate: mobility" and "CO2 avoided emissions". During 2018, EpE has worked on the ZEN2050 study, aiming at assessing how to reach the carbon neutrality in France at the 2050 horizon.

Trade association

EuroACE

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

EuroACE, the European Alliance of Companies for Energy Efficiency in Buildings, is an association of industrials that provide materials and solutions for energy efficiency in buildings. Created in 1998, EuroACE works at European level, together with the European institutions and a broad range of stakeholders, to develop a consistent European framework enabling more energy efficiency in new and existing buildings. EuroACE also supports targeted actions at national level. The Alliance celebrated its 20th Anniversary in 2018.

How have you influenced, or are you attempting to influence their position?

Saint-Gobain is an active member and supporter of the work of EuroACE, notably through its role as a Board member and its chairmanship of the Energy Efficiency Policy workgroup of the Alliance. Our input builds on our knowledge of energy efficiency policies in the various European countries and our holistic vision of buildings. Further to the work on the revision of the Energy Performance of Buildings Directive (EPBD) and the Energy Efficiency Directive (EED), EuroACE is fully engaged in supporting their national implementation. Saint-Gobain was holding the Presidency of the Alliance in

2017-2019 and since 2020 it has taken a role as Vice President. In 2019, EuroACE has been very active in ensuring the adequate recognition of buildings' efficiency by the new European Commission.

Trade association

EU-ASE

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

EU-ASE is a multi-sectoral business organisation launched in 2010, whose members have operations across the 28 Member States of the European Union. EU-ASE represents all industrial sectors engaged in energy efficiency, giving visibility and enhancing technological and market solutions for energy efficiency whose potential is today not fully exploited. EU-ASE works to promote a forward looking political agenda where energy efficiency will facilitate further decarbonisation efforts and the integration of renewable energy sources, in line with the Paris agreement.

How have you influenced, or are you attempting to influence their position?

We have been involved in the work of EU-ASE on the EU Clean Energy Package, notably in order to strengthen the revisions of the Energy Performance of Buildings Directive (EPBD), the Energy Efficiency Directive (EED), and the Governance for energy and Climate policies, as well as for strengthening the 2050 decarbonisation commitment of the EU (2050 climate neutrality). We are taking part in regular meetings with government representatives in capitals in Brussels. In October 2019, we supported the organization of a Franco-German Energy-Efficiency Business Summit in Paris.

Trade association

EURIMA

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Eurima, the European Insulation Manufacturers Association, represents the interests of all major mineral wool producers throughout Europe. Eurima is a leading voice making the case for a European energy policy that places a more meaningful emphasis on energy efficiency and savings by promoting the common interests of our industry and working for positive regulations and standards to reduce energy use across Europe. Eurima also takes the lead on promoting sustainability in the construction sector.

How have you influenced, or are you attempting to influence their position?

Saint-Gobain is actively involved in the work of Eurima and provides regular input to all of its work streams. Saint-Gobain holds the Chairmanship of Eurima as well as Convenorship of the Technical Committee and Vice-Convenorship of the Energy

Efficiency Committee. In Eurima, we promote the common interests of our industry and works for positive regulations and standards in the fields of energy efficiency, circular economy and sustainability.

Trade association

ETC

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Energy Transition Commission is a diverse group of leaders from public, private and social sectors. They are energy users and suppliers, researchers and advisers, with experience in various geographies aiming to help identify pathways for change in their energy systems to ensure both better growth and a better climate.

How have you influenced, or are you attempting to influence their position?

The Chairman and Chief Executive Officer of the Group, is one of the commissioners. We participated in the elaboration of several reports like the ETC "Better Energy, Greater Prosperity" report published in May 2017 to limit global warming at levels well below 2 °C. In November 2018, the ETC published a report entitled “Mission Possible: reaching net zero carbon emissions from harder-to-abate sectors by mid-century”.Our Chairman and CEO is one of the signatories of the document ”7 PRIORITIES TO HELP THE GLOBAL ECONOMY RECOVER
WHILE BUILDING A HEALTHIER, MORE RESILIENT, NET-ZERO-EMISSIONS ECONOMY” published by ETC in 2020.

Trade association

Global Alliance for Building and Construction (GABC)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

This alliance, launched by France and the United Nations Environment Program (UNEP) during the COP21, aims to bring states, local authorities, construction businesses and relevant associations together by means of a roadmap to smooth the transition to energy efficient buildings with low greenhouse gas emissions, in accordance with the goals set under the Paris Agreement.

How have you influenced, or are you attempting to influence their position?

Saint-Gobain is committed to creating a low-carbon trajectory for the global construction industry. For this reason, the Group is actively involved in the work of the GABC, as a founding member of the GABC and as a member of its steering committee. Through its involvement in the GABC, Saint-Gobain seeks to demonstrate to all countries that the

technical solutions exist, particularly for improving energy efficiency, regardless of geography – hot countries, cold countries, dry or tropical climates – and that these solutions are affordable. GABC organised a symposium on building at COP24 in Poland. In 2019, Saint-Gobain was notably involved in the regional work linked to decarbonisation roadmaps, which will be published in 2020.

Trade association

Glass for Europe

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Glass for Europe is the trade association for Europe's manufacturers of building, automotive, and transport glass, all derived from the base material known as flat glass. Glass for Europe's position is to call for a binding energy efficiency target that will support economic growth, sustain the competitiveness of Europe's industries and facilitate the transition towards a low-carbon economy across all sectors of the economy.

How have you influenced, or are you attempting to influence their position?

As a member of Glass for Europe, Saint-Gobain is acting in favor of energy efficiency in light of glass contribution to energy savings at building level, and to lighter solutions on the automotive industry. Saint-Gobain notably provides support to work streams related to energy efficiency (e.g. Implementation Guide on the new buildings directive) and to the decarbonisation of the glass industry. In January 2020, Glass for Europe released the brochure "2050 Flat Glass in Climate-Neutral Europe".

Trade association

EUROGYPSUM

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Eurogypsum is an European federation of national associations of gypsum products manufacturers. Eurogypsum's position consists in promoting a sustainable built environment for Europe thanks to the environmental, social and economic credentials of gypsum products and solutions. Eurogypsum advocates for a European policy on gypsum products recycling that is not a single operator responsibility, but a collaboration between different operators throughout the value chain and pushes for a circular economy model of the gypsum products in the construction market

How have you influenced, or are you attempting to influence their position?

Saint-Gobain has been a member of Eurogypsum for several years. As a leader on the gypsum products market, Saint-Gobain already advocates for a better recycling of

gypsum products. Saint-Gobain participates in all work streams of Eurogypsum, and is particularly involved in its workstreams on climate, emissions, and sustainability and circularity. Saint-Gobain chairs the Sustainable Construction and the Circular Economy WGs and the CSO chairs Eurogypsum since may 2020.

Trade association

LEVEL(S)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

To improve sustainability and drive market demand for better buildings, a new, open source assessment framework, Level(s) has been developed by the European Commission in close collaboration with stakeholders including Skanska, Saint-Gobain, Sustainable Building Alliance and Green Building Councils.

How have you influenced, or are you attempting to influence their position?

At European level, Saint-Gobain has been a member of the LEVEL(S) steering committee. 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. The European Commission launched the pilot phase of LEVEL(S) in 2017; it will continue until 2019. In 2018, Saint-Gobain has launched the testing of LEVEL(s) on 4 projects, and has remained an engaged stakeholder in the debate on the future of LEVEL(s).In 2019, Saint-Gobain took part in the consultations supporting the finalization of the LEVEL(s) framework, to be published mid 2020.

Trade association

World Business Council for Sustainable Development (WBCSD)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

WBCSD is a worldwide organization of 200 companies that deliberate on and develop solutions for a more sustainable world. A core component of WBCSD's Climate Policy activities is to foster strong policy signals and economic incentives promoting a race to the top where sustainable solutions can succeed. They actively call for policies that are consistent with ambitious action on climate and enable business-led solutions to scale up and speed up the implementation of the Paris Agreement.

How have you influenced, or are you attempting to influence their position?

Saint-Gobain has been a member of the WBCSD board since 2017, with responsibility for "climate, energy, the circular economy, towns and cities, and mobility". Saint-Gobain attended the third Business and Climate Summit (BCS) in June 2017, which was

supported by EpE and the WBCSD. We also joined the World Factor 10 program at the end of 2017 Business Council for Sustainable Development on the circular economy program, aiming to bring circularity into heart of business leadership and practice. The goal is to build a critical mass of engagement within and across business to move the Circular Economy to deliver and scale solutions needed to build a sustainable world. Saint-Gobain also regularly takes part to some working groups such the one related to the Energy Solutions or the one related to the TCFD Construction and Building Materials Forum.

Trade association

CPLC

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The Carbon Pricing Leadership Coalition (CPLC) was officially launched on November 30, 2015, the opening day of the United Nations Framework Convention on Climate Change 21st Conference of Parties (COP21) meeting in Paris, France. The World Bank Group, business groups, and investors have called on governments and corporations around the world to support carbon pricing to bring down emissions and drive cleaner investments in cleaner technologies.

How have you influenced, or are you attempting to influence their position?

We are part of the Carbon Pricing Leadership Coalition Founding Partners and take part to working groups such as the one related to carbon pricing of the construction sector.

Trade association

Globe EU and Bee Group

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The GLOBE EU Bee Group is a forum for MEPs on one hand and progressive business partners on the other. The Bee Group's purpose is to propose alternatives inspired by innovation and a long-term vision on issues related to sustainable development and circular economy. In other words, the Bee Group invites decision-makers to think about the future, building upon the common understanding that positive legislation is needed to manage the transition towards a more sustainable model. Within the European Parliament, GLOBE EU serves as a platform for discussing European policy proposals and for coordinating political action among Members of the European Parliament (MEPs) and at member state level.

How have you influenced, or are you attempting to influence their position?

Through its activities (workshops, round tables, conferences and other structured discussions) the Bee Group helps sharing the vision of forward-looking corporations; debates how legislation and incentives can help innovate towards resource-efficiency, and how best practices can be upscaled. In 2019, GLOBE EU organized events on sustainable finance, fast tracking circularity in the EU, a welcome event with new Members of the European Parliament, and an event on the state of sustainability in the EU.

Trade association

Green Recovery Alliance

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The Green Recovery alliance, founded by the Chairman of the European Parliament's Environment Committee, is working to promote green investment plans and ensure that climate and biodiversity commitments are at the forefront of the economic recovery after the crisis. This initiative comes just a few days after EU environment ministers launched an appeal to put the European Green Deal at the heart of the European Union's post-pandemic recovery plan.

How have you influenced, or are you attempting to influence their position?

The Chairman and Chief Executive Officer of the Group has joined this alliance, on behalf of Saint-Gobain, alongside 180 decision-makers from the world of politics, business, unions, NGOs and think tanks, to collectively develop investment plans aligned with climate commitments and designed to boost the economy after the crisis.

C12.3f

(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

The Group's Chief Sustainability Officer leads and coordinates the actions across the Group in this domain. Are part of his team the sustainable Construction team (including the European Public Affairs team), as well as the EHS department managing the Group environmental targets including CO2. This organization ensures that all actions and projects are in line with the group's overall climate commitments. At Group level, the Sustainable Construction team defines and coordinates the Group's strategy for influencing sustainable construction markets, including issues relevant to climate change such as embodied carbon and energy efficiency, notably within the framework of discussions with stakeholders. Through our public advocacy activities, we ensure a regular monitoring of policy and regulatory developments, and provide timely input to support future policy developments. The EHS policy guides the Group's approach towards the maximal reduction of its environmental impacts, and states mid-term targets for emissions reduction and energy consumption. It is communicated to all employees through guidance documents, to ensure a consistent approach for all businesses and countries

in which we operate. Furthermore, the Corporate Marketing Department has defined “Public Advocacy and Standards” as one of the marketing pillars of the Group, dedicated to the enhancement of the monitoring of new regulations in force in the business and aligned with the vision of the Sustainable Construction Strategy. The public advocacy actions led by Saint-Gobain are fully transparent and publicly disclosed in the Transparency Register in Brussels. This register provides citizens with a direct and single access to information about who is engaged in activities aiming at influencing the EU decision-making process, which interests are being pursued and what level of resources are invested in these activities. At country level, our public advocacy committees, composed of internal experts, promote pro-active positions to mitigate consequences of climate change and enable adaptation in the building sector. Our objectives of decreasing our carbon footprint for scope 1, 2 and 3 by 2025, reaching carbon neutrality by 2050, together with the avoided emissions thanks to the use of our improved insulations solutions are fully in line with worldwide public policies (building energy efficiency, cap and trade and carbon taxes schemes).

C12.4

(C12.4) Have you published information about your organization’s response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication

In mainstream reports, incorporating the TCFD recommendations

Status

Complete

Attach the document

doc de référence 2019 EN.pdf

Page/Section reference

Pages 82 to 86

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

Publication
In voluntary communications

Status
Complete

Attach the document
COVID-Recovery-Response.pdf
COVID-Recovery-CoverLetter.pdf

Page/Section reference
Page 2 of first document (cover letter)

Content elements
Strategy
Risks & opportunities

Comment
This document from ETC states that Governments have the choice, the power and the responsibility to build, following the 2020 crisis, a new economy faster with businesses and civil society. ETC believes they can do this and help the global economy recover by putting 7 key priorities at the heart of economic stimulus packages.

Publication
In voluntary communications

Status
Complete

Attach the document
Net Zero Carbon VA.pdf

Page/Section reference
2 pages document

Content elements
Strategy
Emission targets

Comment
Carbon neutrality press release

Publication

In voluntary communications

Status

Complete

Attach the document

WBCSD_TCFD_Construction Sector.pdf

Page/Section reference

pages 2, 5 and 6

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Other metrics

Comment

Coordinated by WBCSD, the report of this working group includes six companies of the construction value chain, including Saint-Gobain. In this report, members explore the ways in which they can collectively contribute to the objectives of the TCFD. The working group's commentary is designed to support investors' understanding of climate risks and opportunities across the construction value chain, including how connections and points of influence within the value chain can support the low-carbon transition.

Publication

In voluntary communications

Status

Complete

Attach the document

Linkedin post.docx

Page/Section reference

Linkedin post

Content elements

Strategy
Risks & opportunities
Emission targets

Comment

Linkedin post of our CEO on carbon neutrality objective for the Group

C15. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C15.1

(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	The Senior Vice President in charge of Human Resources and Member of the Executive Board , having the overall responsibility of the Sustainable Development department	Board/Executive board