Welcome to your CDP Climate Change Questionnaire 2021

C0. Introduction

C0.1

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

With 38,128M€ of sales in 2020, 167,552 employees and an industrial presence in 70 countries through around 1000 industrial sites (and 4000 distribution outlets), Saint-Gobain is a worldwide leader in the habitat and construction markets. Indeed, 80% of the Group’s sales occur in the construction markets, including new construction, renovation, civil engineering and infrastructure with our products made of flat glass, mineral wool, plasterboard, exterior wall and floor coating mortars. We help to make buildings more energy efficient for the end user. The rapid exponential growth in infrastructure needs and increasing demand for energy-efficient solutions represent valuable opportunities for Saint-Gobain. Our Company’s purpose – Making the World a Better Home – illustrates our ambition to improve the lives of all by making the planet a fairer, more harmonious and more sustainable living space. In construction markets where products and services are supplied locally and mostly have short distances to cover, the structure of the Group is organized per country and regions (Northern Europe; Southern Europe, Middle-East, Africa; Americas; Asia-Pacific) so that Saint-Gobain can meet the specific needs of each local market. Apart from the construction markets, the Group provides a range of high performant solutions through different BUs (Mobility with glass for automotive, Life sciences, Construction Industry, Abrasives, Composite Systems and Ceramics). In order to continuously improve its processes and products, Saint-Gobain invests heavily in R and D. For the past ten years, the Group has been ranked in the Top 100 Innovators by Clarivate. In 2019, the Group announced its carbon neutrality objective for 2050 setting interim validated Science-Based Targets for 2030 covering our direct (scope 1) and indirect (scope 2 and 3) emissions. Please check our 2020 Universal Registration Document for more details: https://www.saint-gobain.com/sites/sgcom.master/files/sgo2020_urd_en_mel_210326.pdf

C0.2

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

<table>
<thead>
<tr>
<th>Start date</th>
<th>End date</th>
<th>Indicate if you are providing emissions data for past reporting years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reporting year</td>
<td>January 1, 2020</td>
<td>December 31, 2020</td>
</tr>
<tr>
<td>----------------</td>
<td>-----------------</td>
<td>-------------------</td>
</tr>
</tbody>
</table>

**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
- Ethiopia
- Finland
- France
- Germany
- Ghana
- Greece
- Hungary
- India
- Indonesia
- Ireland
- Italy
- Japan
- Jordan
- Kazakhstan
- 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.

<table>
<thead>
<tr>
<th>Position of individual(s)</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board-level committee</td>
<td>The role of the Board of Directors is to determine the Company’s strategic direction and monitor its implementation and proper management. Climate change is regularly monitored by the Board of Directors and the Board has full oversight of it. 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, the training sessions were pursued with a topic on circular economy with a specific point addressed related to the link between circular economy and climate change. 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. Climate-related issues were discussed in several sessions in 2020: in April 2020 a session about “the transformation of energy and industrial systems into a zero carbon economy” with the support of ETC and IEA; As example of climate-related decision made in 2020, we can highlight that our net zero carbon roadmap was proposed and adopted by the Board of Directors during the second semester of 2020, together with our strategy to have our 2030 carbon targets validated by the Science Based Target Initiative, which was the case in November 2020. In April 2021, a seminar was organized regarding biodiversity, including the link with climate change.</td>
</tr>
<tr>
<td>President</td>
<td>The Saint-Gobain Executive Committee is responsible for managing the Group. It makes strategic decisions according to the guidelines defined by the Board of Directors and under the chairmanship of the Chairman and Chief Executive Officer. As president, we mean our Chairman and Chief Executive Officer (starting 1st of</td>
</tr>
</tbody>
</table>
July 2021, a new CEO will be appointed) being also a Member of the Board. 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”.

As example of climate-related decision made in 2020, we can highlight that a new book “The urban challenge” has been prepared and published in May 2021, including the topic of climate change.

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. Saint-Gobain is also part of the “Race to zero” campaign from the UNCC.

C1.1b

(1.1b) Provide further details on the board’s oversight of climate-related issues.

<table>
<thead>
<tr>
<th>Frequency with which climate-related issues are a scheduled agenda item</th>
<th>Governance mechanisms into which climate-related issues are integrated</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scheduled – some meetings</td>
<td>Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies</td>
<td>The role of the Board of Directors is to determine the Company’s strategic direction and monitor its implementation and proper management. Climate-related issues were discussed in several sessions in 2020 (in April 2020 a session about “the transformation of energy and industrial systems into a zero carbon economy” with the support of ETC and IEA; in September and November 2020 for the presentation of our net zero carbon pathway, including a discussion of our SBT targets). The Corporate Social Responsibility Committee ensures that corporate social responsibility issues are taken into account in the definition of the Group’s strategy and its implementation. It reviews all the elements of</td>
</tr>
</tbody>
</table>
C1.2

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

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

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 Sustainable Development Department, led by the CSO, oversees the management of climate-related issues, which represent both a risk and an opportunity for the Group. The Corporate Social Responsibility Committee ensures that corporate social responsibility issues are taken into account in the definition of the Group’s strategy and its implementation. It is composed of three Directors, 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 who attends this committee. 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. Climate-related issues are managed as follows: - The “Carbon Roadmap 2030” working group is a response to the Group’s commitment to achieve carbon neutrality by 2050 and is managed at Group level by several departments: strategy, finance, R
and D, Technology and Industrial efficiency, Purchasing. - The “Sustainable Solutions for Growth” working group strives to improve the solutions offered by Saint-Gobain by taking into account the expectations of various stakeholders as well as potential changes in regulatory requirements. It is managed at Group level by several departments; Strategy, Marketing and CSR - The "Risk Management" working group is responsible for identifying, assessing and mitigating potential risks that could impact the Group’s business. Several departments are involved at Group level such as Strategy, Audit and Internal control and Risk and Insurance. Please check our 2020 Universal Registration Document on pages 93 and 94 for a visual climate change organigram of the Group including the position of our CSO:

C1.3

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

<table>
<thead>
<tr>
<th>Provide incentives for the management of climate-related issues</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row 1 Yes</td>
<td></td>
</tr>
</tbody>
</table>

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).

<table>
<thead>
<tr>
<th>Entitled to incentive</th>
<th>Type of incentive</th>
<th>Activity incentivized</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>President</td>
<td>Monetarily reward</td>
<td>Emissions reduction target</td>
<td>One third of the CEO’s total bonus in 2020 was based on four qualitative targets, one of them being the implementation of the corporate social responsibility policy (including for climate change in 2020: identification of 2030 targets in the context of the CO2 roadmap towards carbon neutrality by 2050; the 2030 roadmap was proposed to the Board of Directors in September 2020, the carbon targets were then validated by the Science Based Target Initiative in October 2020 and published in November 2020). See page 172 of our URD for reference (<a href="https://www.saint-gobain.com/sites/sgcom.master/files/sgo2020_urd_en_mel_210326.pdf">https://www.saint-gobain.com/sites/sgcom.master/files/sgo2020_urd_en_mel_210326.pdf</a>)</td>
</tr>
<tr>
<td>Other, please specify</td>
<td>Monetarily reward</td>
<td>Emissions reduction target</td>
<td>People entitled to monetary reward are: managers with outstanding performance and high-potential managers (2,248 grantees), the main functional and operational heads of the Entities and Regions (49 grantees), Executive Committee members (14 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</td>
</tr>
<tr>
<td>All employees</td>
<td>Non-monetary reward</td>
<td>Emissions reduction project</td>
<td>Saint-Gobain has launched in 2021 an internal Carbon Fund. First implemented in a pilot region, Northern Europe, it aims to accelerate the reduction of non-industrial CO2 emissions through the everyday actions of employees and targeted investments on sites. The areas covered by these investments are mainly related to sustainable employee mobility, renewable energies and improving well-being and energy efficiency at Saint-Gobain sites. These projects, proposed and selected by employees, concern their professional environment.</td>
</tr>
</tbody>
</table>

| 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 2020, the two sites of glass production at Chennai (India) and Pisa (Italy) were awarded for their installation of ORC turbine producing utilities from recovered heat. |

| Chief Operating Officer (COO) | Monetary reward | Emissions reduction target | One third of the COO’s total bonus in 2020 was based on four qualitative targets, one of them being the implementation of the corporate social responsibility policy (including for climate change in 2020: identification of 2030 targets in the context of the CO2 roadmap towards carbon neutrality by 2050; the 2030 roadmap was proposed to the Board of Directors in September 2020, the carbon targets were then validated by the Science Based Target Initiative in October 2020 and published in November 2020). See page 172 of our URD for reference (https://www.saint-gobain.com/sites/sgcom.master/files/sgo2020_urd_en_mel_210326.pdf) |

## 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?**

<table>
<thead>
<tr>
<th></th>
<th>From (years)</th>
<th>To (years)</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Short-term</strong></td>
<td>0</td>
<td>5</td>
<td>Our environment short-term targets, including CO2 scope1+2, is in 2025 compared to 2010 at iso-production. Our principal risks are assessed and tested annually for publication within the annual report.</td>
</tr>
<tr>
<td><strong>Medium-term</strong></td>
<td>5</td>
<td>10</td>
<td>Our medium-term validated CO2 Science-Based target, including scopes 1+2 and 3, is in absolute value in 2030 compared to 2017. Associated to those medium-term targets are our sustainability projects such as shifting our mix to green electricity and develop technologies to transition away from fossil fuels, from example through the use of biogas or by increasing electrification of our processes.</td>
</tr>
<tr>
<td><strong>Long-term</strong></td>
<td>10</td>
<td>30</td>
<td>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. As part of our emerging risks and opportunities horizon scanning, we assess long-term climate-related risks and opportunities toward 2050 within a range of potential climate futures, in line with the recommendations of TCFD. Saint-Gobain has built three qualitative climate scenarios that incorporate a range of political, technological, economic and societal assumptions, which enabled the development of scenarios ranging from 1.5°C to 4.8°C before the end of the century. These scenarios help business units and the countries in which the Group operates anticipate the impacts of climate change on their markets.</td>
</tr>
</tbody>
</table>

**C2.1b**

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

The identification and assessment of risks and opportunities related to climate change is an integral part of our global risk management and innovation processes in line with wider business practice.

i) Definition of ‘substantive financial impact’

When assessing climate-related risks, a substantive financial or strategic impact is defined by an impact having a considerable or relatively significant effect on the Group at corporate level. It can include operational, financial, strategic effects that undermine the entire business or part of it. Such impact could threaten our company’s business model, our future performance, our
solvency or liquidity in the short to long-term horizons. In that perspective our assessment includes for each impact an analysis of: - the proportion of business units affected - the size of the impact on those business units - the dependency of the organization on that unit - the potential for shareholder/customer.

ii) Description of the quantifiable indicator used to define substantive financial or strategic impact
When quantifying climate-related risks, the quantifiable indicators used to define substantive financial or strategic impact are where the impact is in excess of a threshold of 50 million euros. Saint-Gobain has identified several risks and strategic opportunities related to climate change. Each risk and opportunity affects each segment of the Group’s value chain differently, from the extraction of raw materials to their end of life. The table on page 95/96 of our annual report (link in introduction) shows how the opportunities and risks identified by Saint-Gobain impact each stage of the value chain while being part of global market dynamics and meeting consumer expectations. This approach has been aligned with TCFD recommendations. Saint-Gobain is driving forward risk assessment in this area: in 2020, Saint-Gobain led on the response to TCFD by participating in a working group including six companies of the construction value chain brought together by WBCSD to develop TCFD guidance specific to the construction sector. The output of this project resulted in the Construction and Building Materials TCFD Preparer Forum report issued in July 2020 which is used as a guide by construction entities on how to approach the TCFD recommendations. 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. As case study, in 2020, the CSR Committee (attended by the Chief Sustainability Officer) and ensures that corporate social responsibility issues are taken into account in the definition of the Group’s strategy and its implementation over the short-, medium- and long-term, covering also risks and opportunities, made an extensive study leading to the table on page 95 and 96 of our annual report. As input, the Committee has considered the previous mentioned Construction and Building Materials TCFD Preparer Forum report issued in July 2020. In order to ensure that any emerging risks are identified and included within our principal risk register, where required, this work has then been specifically reviewed to be more specific to Saint-Gobain’s business and integrated in our annual risk assessment. Each year, the assessment of our main risks intends to evaluate such risks in terms of impact, control and criticality levels. • Regarding the impact level, the definition includes the financial as well as human, environmental and reputational implications. • Regarding the control level, it includes existing controls and foreseen action plans to address the risks together with all necessary training and employee awareness initiatives. • Regarding the criticality level, it refers to the plausibility of occurrence of the risk, with a pragmatic view on the contextual background of the risk. This yearly assessment is done by Saint-Gobain Audit and Internal Control Department, together with the Chief Sustainability Officer for climate change related issues, and presented to the Audit and Risks Committee of the Group, one of the three committees established by the Board, with the aim to demonstrate that main risks are identified, evaluated and managed. As such, risks are assumed by the Group which will validate the adequate action plans in order to mitigate, transfer, accept or control those risks. None of the risks related to climate change is of major financial significance for the Group in 2020, nevertheless the combined effects of climate change could potentially result in climate change becoming a principal risk in the next years. As illustration, the group includes risks
related to the changes in the cost of energy and carbon within its principal risk statement, and we expect to see significant fluctuations in these costs within a range of climate futures.

**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**

i) Description of the process used to determine which risks and/or opportunities could have a substantive financial or strategic impact

The identification and assessment of risks and opportunities related to climate change is an integral part of Saint-Gobain’s global risk management and innovation processes in line with wider business practice.

Risk identification and assessment is undertaken at Group level with input provided on a geographical and divisional basis, representing all geographies and business units of the Group. The Corporate Social Responsibility Committee (including the Chief Sustainability Office) is responsible for identifying and assessing emerging sustainability risks and climate-related risks and opportunities over the short, medium and long-term, and ensuring that the Group’s strategy is resilient.

In order to ensure that climate risks are adequately included within overall risk management processes, the group regularly carries out significant stakeholder wide engagement processes as part of its sustainability strategy, and also carried out an in-depth TCFD review in 2020, considering three distinct climate futures varying from 1.5-4.8°C warming. From its learnings, the Group contributed to the construction sector’s response to TCFD via a WBCSD working group, resulting in the Construction and Building Materials TCFD Preparer Forum report issued in July 2020. A company specific assessment of the Group’s climate-related risks and opportunities was undertaken and our full analysis is included within p95-96 of our annual report. This outlines how the risks and opportunities impact each stage of the value chain, and ensures that Saint-Gobain’s strategy is resilient within global market dynamics and meets consumer

Risks and emerging risks (including climate risks) are accelerated to the principal risk register where they have a substantive financial or strategic impact on the company, i.e. a risk that has operational, financial or strategic effects that undermine the entire business or part of our business, and which could threaten our company’s business model, our future performance, our solvency or liquidity in the short, medium or long-term horizons, or risks where the impact is in excess of EUR50m.

Considering this threshold, none of the risks related to climate change is of major financial significance for the Group in 2020, nevertheless the combined effects of climate change could potentially result in climate change becoming a principal risk in the next years and in addition, climate change is an exacerbator of many existing risks within the principal risk register.

The group-wide risk register is reviewed annually by the Audit and Internal Control department, together with the Chief Sustainability Offices for climate-related risks. Key risks are accelerated to the Audit and Risks Committee and the Board of Directors for inclusion within the principal risk register. These principal risks are assessed in terms of impact, control and criticality levels as part of the business plan and strategic review, looking at short and medium-term time-horizons. Impact considers financial, human, environmental and reputational implications. Control considers existing controls and foreseen action places together with training and employee awareness initiatives. Criticality considers the plausibility of occurrence of the risk, with a pragmatic view on the contextual background of the risk. Action plans are put in place to either mitigate, transfer, accept, or apply further controls for those risks.

All the material risks that the Board of directors must be aware of are included into the mapping analysis. The map is therefore being reviewed by the Audit and Risks Committee and then validated by the board of directors.

ii) Case study that demonstrates how the components of the described process have been used to identify, assess and respond to Transitional risks:

The EU-Emission Trading System (ETS) applies to 40% of our scope 1 emissions. This risk has been identified from the assessment led by both the Corporate Social Responsibility Committee and the Audit and Risks Committee. The impact in 2020 is low because the balance (free allocation less emissions) is still positive but it will have a substantial financial impact when our self-sufficiency in quotas will decrease to zero in the medium term. The average annual impact could amount 100M€ in 2030 if the unit price rises to 100€/tCO2 at that date. We chose to mitigate that risk by developing ambitious carbon target (2030 SBT of -33% for 2030 vs 2017 for scope1+2), reducing therefore our exposure to carbon pricing mechanisms, coupled with an envelope of 100,000,000€ every year over the 10 next years for CAPEX and R&D investments. In addition, an internal shadow carbon price for investment and R&D supports the development of low carbon technologies at worldwide level in order to reduce our emissions and mitigate the risk of impact linked to the extension of other than EU carbon pricing mechanisms.

iii) Case study that demonstrates how the components of the described process have been used to identify, assess and respond to Physical risks:

Flood risk has been identified from the assessment led by both the Corporate Social Responsibility Committee and the Audit and Risks Committee. The impact in 2020 is low
because so far, it was limited to one event in one of our facility in Egypt in 2018 that caused a long production stoppage having a financial cost of more than 50M€. Whilst global climate impacts are expected to increase in our Highway to Hell scenario, Saint-Gobain has circa 1000 facilities which are spread over a large geographical perimeter (70 countries), which by nature, decreases the impact of the risk at corporate level, however the risk will likely have a substantial financial impact over the short-term because it already happened once and may repeat with the same or higher impact and to an increased frequency.

In order to mitigate that risk, we assess on an annual basis our exposure to acute physical climate-related risks through regular local audits and self-assessments. 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).

There is significant uncertainty over our long-term climate risk assessments due to the inherent uncertainty of climate scenarios, the velocity over which risks can take place, and the impact of potential impacts as and when they occur. The risks and uncertainties could therefore be different from described.

**C2.2a**

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

<table>
<thead>
<tr>
<th>Relevance &amp; inclusion</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current regulation</td>
<td>Justification of the decision on the relevance and inclusion of this risk type in our risk assessment: Current regulation is included in our risk assessment but is considered as not relevant as current regulation is appropriately managed and does not lead to unexpected substantive financial or strategic impact on our business. The regulatory environment is continually reviewed in all businesses and geographies and requires continuous monitoring and assessment of policy actions. The impact of those risks may require changes to annual reporting or changes to business practice and could impact our cash flow, operating results, financial position, business and reputation. There is therefore a continual scanning for current policy and legislation (including climate) which may impact the reporting requirements for the group (such as TCFD), or may result in climate/environmental standards to adhere to. Example of specific risk considered in our assessment and how it is included in climate-related risk assessments: At the local level, monitoring and compliance programs are implemented in</td>
</tr>
</tbody>
</table>
the countries by the EHS managers. At corporate level, the Legal department monitors current and emerging environmental regulations. We can illustrate this process by the implementation of the European Industrial Emissions Directive (IED) where corporate supports the development of such Directive and exchanges with the local level so that the impact of its implementation can be foreseen and integrated in our investments plans.


<table>
<thead>
<tr>
<th>Emerging regulation</th>
<th>Relevant, always included</th>
</tr>
</thead>
</table>

Justification of the decision on the relevance and inclusion of this risk type in our risk assessment:
Emerging regulation is included in our risk assessment and is considered as relevant as it may have a substantive financial or strategic impact on our business.

The regulatory environment is continually reviewed in all businesses and geographies and requires continuous monitoring and assessment of policy actions. The impact of those risks could lead to unexpected changes to annual reporting or changes to business practice and could impact our cash flow, operating results, financial position, business and reputation. There is therefore a continual scanning for current policy and legislation (including climate) which may impact the reporting requirements for the group (such as TCFD), or may result in climate/environmental standards to adhere to.

Example of specific risk considered in our assessment and how it is included in climate-related risk assessments:
At the local level, monitoring and compliance programs are implemented in the countries by the EHS managers. At corporate level, the Legal department monitors current and emerging environmental regulations. In line with the recommendations of TCFD, emerging regulation is assessed as part of the horizon scanning process within a range of future climate states. A simplifying assumption applied by the Group is that increased legal and regulatory transition risks will arise in a low-temperature future (Saint-Gobain’s “Wind of Change” scenario).

As illustration of specific risk considered in our assessment, we can highlight the increase in the price of GHG emissions that may impact our manufacturing costs and put at risk our business with respect to imported materials from less regulated countries. More broadly we expect that other geographical areas will follow the already concerned areas. As example, the stricter EU-ETS rules reducing the level of free allocation will have an impact for the Group, limited thanks to our self-sufficiency in quotas in the medium term and the 2030 SBT that we have set, but potentially increasing the impact of this risk in the future together with the increase of price and the extension of similar regulations to other geographical areas.
Our annual report on page 95 provides an overview of our risks associated with climate change.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Not relevant, included</th>
</tr>
</thead>
<tbody>
<tr>
<td>Justification of the decision on the relevance and inclusion of this risk type in our risk assessment: Technology is included in our risk assessment but is considered as not relevant as, despite it does have a substantive financial or strategic impact on our business, it is considered as an opportunity rather than a risk. The Group acknowledges that the changes will increase over time and particularly in a “Wind of Change” scenario. A key focus for the Group is to realise opportunities from technological change. Technology advances are key to mitigating our carbon impact and also important in ensuring our product mix and operations are environmentally friendly. In particular, energy efficiency, resource efficiency, development and use of low-impact materials and renewable energy production are strongly reliant on technology improvements. Example of specific risk considered in our assessment and how it is included in climate-related risk assessments: As illustration of specific risk considered in our assessment, we can highlight the implementation of new low carbon technologies within our facilities as well as over our value chain (raw materials supply and transportation) which will help to develop low-carbon products for our customers. This opportunity is managed at Group level by several departments: Strategy, Marketing, CSR and R and D. Indeed, answers are linked to the need of new raw materials and new increased R&amp;D spending to develop low-carbon solutions. Sustainable Development department is also involved for - the development of the circular economy (as example, logistics have been optimized for glass products to promote the recovery of cullet (glass debris) across the entire value chain where the Group is present and especially between glass processing sites (manufacturing of windshields or windows, for example) and glass furnaces.) - the communication of the carbon intensity of our products through Environmental Product Declaration. Our annual report on pages 95 and 96 (<a href="https://www.saint-gobain.com/sites/sgcom.master/files/sgo2020_urd_en_mel_210326.pdf">https://www.saint-gobain.com/sites/sgcom.master/files/sgo2020_urd_en_mel_210326.pdf</a>) provides an overview of our risks and opportunities associated with climate change.</td>
<td></td>
</tr>
</tbody>
</table>
| Legal                  | Not relevant, always included | Justification of the decision on the relevance and inclusion of this risk type in our risk assessment:  
Legal is included in our risk assessment but is considered as not relevant as it is considered as not having a substantive financial or strategic impact on our business.  
Legal risks are systematically included in our risk mapping exercises in order to reduce our exposure to litigation, including litigation around climate and environmental law. Legal risks are also considered alongside our regulatory and policy risks. Saint-Gobain’s principal risk register includes risks relating to industrial and environmental risks – i.e. exposure to environmental liabilities and risks associated with legal and administrative procedures. Saint-Gobain expects legal risks relating to environmental and climate change to be exacerbated in a low temperature climate scenario (Saint-Gobain’s “Wind of Change” scenario) where the world is increasingly focused on minimizing environmental harm.  
Regarding the liability related to our products, it is considered as an opportunity rather than a risk.  
Example of specific risk considered in our assessment and how it is included in climate-related risk assessments:  
Despite we may face a legal risk due to disruption of certain supplies, disruption of operations that could threaten our company’s reputation and even expose us to claims from our customers, resulting at the end in financial costs, the impact of this risk is mitigated by prevention on both our facilities and suppliers:  
- We assess on an annual basis our exposure to that risk through regular local audits and self-assessments. 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 part of its responsible purchasing program, the Group also relies on a diversity of suppliers and supply sources to reduce the risk of transportation difficulties and supply chain disruptions.  
| Market                | Relevant, always included     | Justification of the decision on the relevance and inclusion of this risk type in our risk assessment:  
Market is included in our risk assessment and is considered as relevant as it may have a substantive financial or strategic impact on our business. |
Market risks are related to the principal risks of the changes in the cost of energy and raw materials. This risk is expected to increase in a low-temperature future for low-carbon energies that are not yet fully developed.

Example of specific risk considered in our assessment and how it is included in climate-related risk assessments:

As a principal risk, risks associated with economic cycles, and risks associated with changes in the cost of energy and raw materials are monitored and assessed as part of the Group-wide risk review. In line with the recommendations of TCFD, market risks are also assessed as part of the horizon scanning process within a range of future climate states. A simplifying assumption applied by the Group is that increased market transition risks will arise in a low-temperature future (Saint-Gobain’s “Wind of Change” scenario).

As illustration, we may face some risk related to the increase of energy utilities cost in the frame of the worldwide energy transition. Our Purchasing managers develop long-term contracts with suppliers whenever interesting and possible. Power Purchase Agreements may be of interest in some areas but not everywhere and some other energies considered in our carbon roadmaps are today not affordable, (biogas or hydrogen for example). Issues are technical (amount of supply, distribution network,…), financial and linked to local regulation. As example, an overcost of 15€/MWh for biogas vs natural gas would lead to an overscost of more than 400M€ for the Group present consumption of natural gas.


<table>
<thead>
<tr>
<th>Reputation</th>
<th>Not relevant, included</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Justification of the decision on the relevance and inclusion of this risk type in our risk assessment</td>
</tr>
<tr>
<td></td>
<td>Reputation is included in our risk assessment but is considered as not relevant as it is considered as appropriately managed and not having a substantive financial or strategic impact on our business. Exposure to litigation and claims may have a detrimental impact on the Group’s reputation and is linked with the Group risk of risks associated with legal and administrative procedures. In addition, failure to mitigate climate change or act in an environmentally responsible manner may result in a reputational risk for the Group, if not appropriately managed. Finally, the risk of reputation may have as consequence a possible reduced demand for products from our customers or a lack of support from our investors. Saint-Gobain undertakes a regular materiality assessment to determine the key issues relating to Corporate Social Responsibility that are focus areas for the Group. This takes into account risks and opportunities, outlining the</td>
</tr>
</tbody>
</table>
potential impacts for stakeholders and to the Group. The identification of these key risks and opportunities is a key step in the construction of the Group’s CSR roadmap, and assists the Group in meeting the expectations of stakeholders.

Example of specific risk considered in our assessment and how it is included in climate-related risk assessments:
The Group has made the simplifying assumption that reputational transition risk will be exacerbated in an increased-temperature sustainable future (Saint-Gobain’s “Wind of Change” climate scenario), as it is expected that there will be more market and consumer focus on sustainable companies, and increasing policy and legal requirements relating to environmental and climate needs. Regarding our manufacturing impact, we have set up several objectives to mitigate that risk: 2030 SBT and 2050 net-zero carbon targets as well as a 2030 target to increase circular economy by reducing the use of non-renewable virgin materials. In addition, our products, such as the ones used for building insulation, avoid carbon emissions over their lifetime.

During 2020, all our businesses have worked on their carbon roadmaps to minimize the use of fossil fuel. As example our Chennai float installation has stopped in 2020 its use of heavy oil for production, moving to natural gas.

Our annual report on page 95 provides an overview of our risks associated with climate change.

<table>
<thead>
<tr>
<th>Risk Type</th>
<th>Relevance</th>
<th>Justification of the decision on the relevance and inclusion of this risk type in our risk assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute physical</td>
<td>Relevant, always included</td>
<td>Acute physical is included in our risk assessment and is considered as relevant as it may have a substantive financial or strategic impact on our business. Our facilities are around 1000, and spread over 70 countries, which decreases the risk impact. They nevertheless could be isolately impacted by acute physical risks such as storms and floods. This could include closing down of operations, loss of revenue and reputational risks. In order to manage industrial and distribution risks arising from climate change, the Group has in place a risk prevention policy to minimize the seriousness of such events if they do materialize. This policy applies to all Group sites. Led by the Risk and Insurance department, the policy is rolled out within the organization to the sites by prevention coordinators. A risk prevention manual is the Group’s reference base. It includes the applicable standards and technical files.</td>
</tr>
</tbody>
</table>
Concerning natural disasters, the Group uses a mapping tool that enables it to establish the exposure levels of sites depending on the region and business line. There is a special focus on sites with high exposure to natural disasters.

Example of specific risk considered in our assessment and how it is included in climate-related risk assessments:

The Group has made the assumption that acute physical risks will be exacerbated in a high-temperature future (Saint-Gobain’s “Highway to Climate Hell” climate scenario), as it is expected that the changes to temperature will have a higher impact on changes to weather systems.

We consider that acute physical events have a substantive financial or strategic impact on our business because 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 having a financial cost of more than 50M€.

In order to mitigate that risk, we assess on an annual basis our exposure to acute physical climate-related risks through regular local audits and self-assessments. 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).

Our annual report on page 95 provides an overview of our risks associated with climate change.

<table>
<thead>
<tr>
<th>Chronic physical</th>
<th>Not relevant, included</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Justification of the decision on the relevance and inclusion of this risk type in our risk assessment</td>
</tr>
<tr>
<td></td>
<td>Chronic physical is included in our risk assessment but is considered as not relevant as it is considered as not having a substantive financial or strategic impact on our business.</td>
</tr>
<tr>
<td></td>
<td>The Group could be impacted by the chronic risks of climate change such as sea level rise, increases in temperature and water availability. This could particularly include disruption to operations and its consequences.</td>
</tr>
<tr>
<td></td>
<td>Our facilities are several, around 1000, and spread over a large geographical perimeter (70 countries), which by nature, decreases the impact of the risk and makes that we consider that risk as not having a substantive financial or strategic impact on our business.</td>
</tr>
<tr>
<td></td>
<td>Example of specific risk considered in our assessment and how it is included in climate-related risk assessments:</td>
</tr>
<tr>
<td></td>
<td>The Group has made the simplifying assumption that chronic physical risks will be exacerbated in a high-temperature future (Saint-Gobain’s “Highway to Climate Hell” climate scenario).</td>
</tr>
<tr>
<td></td>
<td>as it is expected that the changes to temperature will have a higher impact on changes to weather systems.</td>
</tr>
</tbody>
</table>

We consider that acute physical events have a substantive financial or strategic impact on our business because 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 having a financial cost of more than 50M€.
to Climate Hell” climate scenario), as it is expected that the changes to temperature will have a higher impact on changes to weather systems and sea level rise. 
This may have several consequences particularly for our facilities requiring some water for their manufacturing process (continuous activities such as glass and pipe production that need water for cooling furnaces) and that are located in water stressed areas. The mitigation of this risk is reflected in the development and implementation of specific policies supporting the Group’s environmental commitments, such as the water management with the objective to reduce our industrial withdrawals by 50% in 2030 compared to 2017.


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.

<table>
<thead>
<tr>
<th>Identifier</th>
<th>Risk 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Where in the value chain does the risk driver occur?</td>
<td>Direct operations</td>
</tr>
<tr>
<td>Risk type &amp; Primary climate-related risk driver</td>
<td>Emerging regulation</td>
</tr>
<tr>
<td></td>
<td>Carbon pricing mechanisms</td>
</tr>
<tr>
<td>Primary potential financial impact</td>
<td>Increased indirect (operating) costs</td>
</tr>
<tr>
<td>Company-specific description</td>
<td>The EU-Emission Trading System is the largest carbon market in the world. Around 75 of Saint-Gobain facilities located in 16 countries are included, covering more than 40%</td>
</tr>
</tbody>
</table>
of our scope 1 emissions. The principle is that any industrial installation receives a certain amount of free credits each year. If its annual verified emissions are lower than the free credits allocation, it can sell the surplus in the EU-ETS market; otherwise the shortage has to be bought on the market. This is the « cap and trade » principle, aiming at decreasing the emissions of the European Industry.

It is expected that, in a lower temperature scenario (Saint-Gobain’s “Wind of Change” scenario), cap and trade systems may become more ubiquitous, and the underlying carbon price may increase. This is therefore a key emerging risk for the Group. 2020 was the last year of the third period of the EU-ETS and with 2021 we have entered the 4th period (2021-2030). For that period, all allocation rules are now defined and we expect a decrease of the amount of free allocations that we will receive, which will 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. Our estimated shortage is directly considered for evaluating the financial impact. Thanks to our self-sufficiency in quotas in the medium term and the 2030 SBT that we have set (-33% for 2030 vs 2017 for scope1+2), the impact is limited but we expect it to increase in the future as unit price is also likely to increase in the future and similar regulations likely to appear into other geographical areas such as in North America and Asia where we are located. We already face some carbon mechanisms for our plants located in Beijing, Shanghai, Korea, California, Quebec, Ontario, Alberta and British Colombia. The emerging risk of carbon pricing mechanisms is monitored by a specific CO2 committee including several Departments such as Purchasing, Finance and Sustainable Development. This committee has also a continuous monitoring of EU-ETS impact for the Group including the follow-up of EU allowance carbon price scenario analysis coming from external finance experts.

**Time horizon**
- Medium-term

**Likelihood**
- Virtually certain

**Magnitude of impact**
- Medium-high

**Are you able to provide a potential financial impact figure?**
- Yes, an estimated range

**Potential financial impact figure (currency)**

**Potential financial impact figure – minimum (currency)**
- 50,000,000

**Potential financial impact figure – maximum (currency)**
- 100,000,000
Explanation of financial impact figure
Considering the lack of free credits over phase IV using last update of EU-ETS phase IV rules meaning an annual shortage for the Group of 1MtCO2/year and a minimal cost of 50€/tCO2 for EU allowance (price in May 2020) for the minimum and 100€/tCO2 for the maximum figure. At the end of 2020, analysts saw EU carbon prices at Eur56-Eur89/mt by 2030, it is why we have taken the 50-100€/tCO2 as hypothesis. The calculation is therefore as follows: 1MtCO2 multiplied by 50 or 100€/tCO2 for respectively the minimum and maximum=respectively 50 and 100M€.

Cost of response to risk
100,000,000

Description of response and explanation of cost calculation
Emerging regulation relating to cap and trade schemes is monitored by a specific CO2 committee including several Departments such as Purchasing, Finance and Sustainable Development. This committee has also a continuous monitoring of EU-ETS impact for the Group including the follow-up of EU allowance carbon price scenario analysis coming from external finance experts.

Explanation of cost calculation:
In order to support the achievement of our 2030 SBT that we have set (-33% for 2030 vs 2017 for scope1+2), and therefore reduce our exposure to carbon pricing mechanisms, the Group has budgeted an envelope of 1Bn€ for CAPEX and R&D investments over the next ten years, which represents in average around 100 M€ per year through: 1BN€/10 : 100 M€ (our cost of response to risk). Key projects are therefore developed such as our Norwegian net zero carbon plasterboard project that will start in 2023.
In addition, an internal worldwide shadow carbon price of 50€/tCO2 for investments supports the development of low carbon technologies in order to reduce the potential financial risk.

Comment

Identifier
Risk 2

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**
The Group could face increase in costs of energy supplies due to the future energy mix evolution. 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 and for the development of future resources (renewable electricity, hydrogen, biogas,…). Issues may be technical, financial or linked to local regulation.

Saint-Gobain expects this transition market risk to have a higher likelihood of occurring in a low-temperature future (Saint-Gobain’s “Wind of Change” climate scenario) where low-carbon energies are not yet fully developed.

As an example, the Group may be required to purchase biogas rather than natural gas, due to the requirement to use lower-carbon alternatives to drive down carbon emissions of the Group. At today’s price, with an hypothesis of biogas being 15€/MWh more expensive than natural gas, it would result in an additional cost to the Group of €405,000,000.

**Time horizon**
- Medium-term

**Likelihood**
- Likely

**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)**
- 405,000,000

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact figure**
The potential financial figure is calculated based on an extra cost of 15€/MWh for biogas purchase vs natural gas, considering the full natural gas consumption of the Group (27000GWh/year), being also stated that such amount of supply is today not available. The calculation is therefore 27000GWh multiplied by 15000€/GWh = 405M€.

**Cost of response to risk**
- 100,000,000
Description of response and explanation of cost calculation

The primary method for managing long-term fluctuations in energy price volatility is to reduce the Group’s dependence on high carbon energy source, and focus more on renewables and other sustainable sources of energy such as renewable energy from wind farms.

The key method for limiting exposure to short-term fluctuations is to use swaps and options to hedge part of our fuel oil, natural gas and electricity purchases. These hedges are generally arranged by the Group Treasure and Financing Department (or with regional Treasury Departments) in accordance with instructions from the purchasing department.

As a case study example of how we are reducing our dependence on fossil fuels, Saint-Gobain has put in place carbon roadmaps in the frame of our carbon reduction targets (SBT 2030 and Net Zero Carbon 2050). Those roadmaps include both energy efficiency increase to decrease our energy consumption and contracting whenever of interest energy purchase agreements over a long period (10-15 years). As example, on March 2021, Saint-Gobain in the US entered into a 12-year Power Purchase Agreement (PPA) with Invenergy, a leading privately held global developer and operator of sustainable energy solutions, for 120 megawatts (MW) of the 250 MW Blooming Grove Wind Farm capacity in McLean County, Illinois.

Explanation of cost calculation:
In order to support the achievement of our 2030 SBT that we have set (-33% for 2030 vs 2017 for scope1+2), and therefore reduce our exposure to higher energy costs, the Group has budgeted an envelope of 1Bn€ for CAPEX and R&D investments over the next ten years, which represents in average around 100 M€ per year through : 1BN€/10 : 100 M€ (our cost of response to risk). This envelope is managed by the Technology and Industrial efficiency Department in the frame of the “Carbon Roadmap 2030” including also the strategy, finance, R and D and Purchasing Departments.

Comment

-------------------------------------------------------------

Identifier
Risk 3

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
The world is already feeling the impacts of climate change with significant increases in severe storms and floods and changes to weather patterns. It is likely that the physical impacts of climate change will be felt more keenly in Saint-Gobain's “Highway to Climate Hell” climate scenario, where temperatures are expected to increase by 4.1-4.8°C. Increased frequency of extreme weather events such as torrential rain could increase the frequency of flooding for our sites. Particularly at risk are the sites situated in floodplains, as well as those situated in areas prone to flash floods after torrential rains. Those sites represent around 15% of our relevant sites. France is a good example of where it may happen, as it represents around one third of the 15% previously mentioned: this is due to the double effect of the existing risk and our strong presence in that country (30% of the relevant sites are located in France).
This could result in delays to operations as a result of an inability for the workforce to arrive at or work on the site, an inability for heavy machinery to carry out work in flood conditions, and destruction to work already undertaken as a result of flood damage. This could impact on operational costs by increasing the number of days required to complete a project, or require additional repair costs to address flood damage.
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. The ultimate financial cost of the flood event was more than 50M€

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)
55,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure
Significant weather events such as flood events may result in disruption to our operations leading to lost operational productivity, delays to projects, damage to reputation and lower profitability on projects.

As an example of how flood risk could impact our operations, 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 having a financial cost of 55M€ which represents our financial impact figure and is made of 22,5M€ of property damage and 32,5M€ of operating losses. Therefore our impact is calculated as 22,5M€+32,5M€=55M€.

Keeping out the Egyptian event of 2018, we registered around 7M€ of losses in average due to climate-change physical events over the 3 last years.

The risk of flood is likely to increase in a “Highway to Climate Hell” scenario, where high warming is likely to contribute to significant changes in weather systems.

Cost of response to risk
135,000

Description of response and explanation of cost calculation
From one side, our facilities are several, around 1000, and spread over a large geographical perimeter (70 countries), which by nature, decreases the impact of the risk. In order to mitigate that risk, we assess on an annual basis our exposure to acute physical climate-related risks through regular local audits and self-assessments. Facilities must apply the Group Loss Prevention Manual and Business Continuity Plans are defined for each. 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. At corporate level, the Risk and Insurance department manages risks of property damage and related business interruption (loss prevention and loss management).

We are also 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.

As illustration, 5 to 15 special flood surveys are carried out every year. The top 3 recommendations from those audits included in the actions plans focus on “flood emergency plans”, “barriers” and “drainage maintenance”.

Axa company supports us 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.

Explanation of cost calculation:
The indicated cost of response to risk of 135,000€ is linked to the contract that we have with Axa for accessing their data and improving our risk mapping, for 50k€ per year, and to the special flood surveys carried out every year, for 85k€ (2020 data), through 50k€+85k€=135k€.
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.

<table>
<thead>
<tr>
<th>Identifier</th>
<th>Opp1</th>
</tr>
</thead>
</table>

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
Increased revenues resulting from increased demand for products and services

Company-specific description
In the frame of our medium and long-term carbon targets (2030 SBT interim targets and 2050 carbon neutrality target), the Group aims at being more resilient in a worldwide context of fuel mix evolution. Saint-Gobain expects that there will be a higher level of operating efficiency and consequently cost savings found in the "Wind of Change" scenario, where the costs of energy increase, as well as a consequent better positioning of our products thanks to their lower carbon manufacturing impact.

Our investments programs target our operational sites to reduce their carbon emissions and 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, but also efficiency (optimization of the energy use in our processes for motors, lighting, compressed air, etc including also the use of digital tools), use of alternative energy (hydrogen, biogas, renewable power) and low carbon raw materials, electrification of our processes and Carbon Capture Use and Storage.

As specific examples:
- 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. Considering that the average emission factor of the Italian grid is 0.4 tCO2/MWh and that the Indian grid is 0.7 tCO2/MWh, this amounts to a CO2 gain of 3.4 ktCO2/year for the Italian site and 6 ktCO2/year for the Indian site. The economic profitability linked to the reduction of the energy bill (electricity) is of around 430 k€/year (hyp. 50 €/MWh) per ORC.

– on 24th of May 2021, Saint-Gobain announced that it will create the first net zero carbon plasterboard plant in Norway through the Fredrikstad facility, thanks to an increased electrification of its production process. This project will eliminate more than twenty thousand tons of CO2 emissions per year.

Purchasing also plays a key role by pushing participation in sustainable energy programs. As example, on March 2021, Saint-Gobain in the US entered into a 12-year Power Purchase Agreement (PPA) with Invenergy, a leading privately held global developer and operator of sustainable energy solutions, for 120 megawatts (MW) of the 250 MW Blooming Grove Wind Farm capacity in McLean County, Illinois.

### 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)
200,000,000

### Potential financial impact figure – minimum (currency)

### Potential financial impact figure – maximum (currency)

### Explanation of financial impact figure
Our potential financial impact is calculated through the hypothesis that our Group annual turnover of around 40,000M€ will increase by 0.5% thanks to our more sustainable products. The calculation is therefore 40,000M€ x 0.5%=200M€.

### Cost to realize opportunity
100,000,000

### Strategy to realize opportunity and explanation of cost calculation
Realizing this opportunity requires capital investment to install energy saving technologies.
In order to support the achievement of our 2030 SBT that we have set (-33% for 2030 vs 2017 for scope1+2), and therefore improve the sustainability of our products through low carbon manufacturing impact, the Group has budgeted an envelope of 1Bn€ for CAPEX and R&D investments over the next ten years, which represents in average around 100 M€ per year through : 1Bn€/10 : 100 M€ (our cost of response to opportunity). This opportunity is managed by both R and D and Technology and Industrial efficiency departments, together with the concerned businesses.

Comment

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**Identifier**
Opp2

**Where in the value chain does the opportunity occur?**
Downstream

**Opportunity type**
Products and services

**Primary climate-related opportunity driver**
Development of new products or services through R&D and innovation

**Primary potential financial impact**
Increased revenues resulting from increased demand for products and services

**Company-specific description**
The development or expansion of low carbon products having low impact on the environment, including its carbon impact is considered as an opportunity rather than a risk. Implementing new low carbon technologies within our facilities as well as over our value chain (raw materials supply and transportation) will help to develop low-carbon products for our customers.

As part of Saint-Gobain’s “Wind of Change” climate scenario, it is expected that there will be higher consumer awareness and demand for sustainable products, and that there will be higher levels of government regulation around including sustainable products within building materials, thus driving up demand for these products.

Working on our product through recycled content, biosourced components, less carbonated materials and weight reduction is one of our pillar to reach carbon neutrality.

As example, logistics have been optimized for glass products to promote the recovery of cullet (glass debris) across the entire value chain where the Group is present and especially between glass processing sites (manufacturing of windshields or windows, for example) and glass furnaces.

In addition, the “Sustainable Solutions for Growth” working group strives to improve the solutions offered by Saint-Gobain by taking into account the expectations of various
stakeholders as well as potential changes in regulatory requirements.

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)
200,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure
Our potential financial impact is calculated through the hypothesis that our Group annual turnover of around 40,000M€ will increase by 0.5% thanks to our more sustainable products
The calculation is therefore 40,000M€ x 0.5% = 200M€.

Cost to realize opportunity
125,000,000

Strategy to realize opportunity and explanation of cost calculation
The strategy to realize opportunity focuses on efforts led by R&D at both corporate and BU level to work on recycled content, biosourced components, less carbonated materials and weight reduction. For the past 10 years, the Group has been ranked in the Top 100 Innovators by Clarivate. As cost to realize opportunity, we spent €428M on research and development expenses in 2020. A significant proportion part of this amount (29%) was dedicated to low-carbon products or products that avoid emissions. Therefore our cost to realize opportunity is calculated as follows: 428M€ x 29% = 125M€.

From a reporting perspective our Sustainable Development department is also involved for the external communication of the carbon intensity of our products through Environmental Product Declaration. Since 2012, an internal eco-innovation approach is implemented to develop and distribute eco-friendly products, anticipating our customers’ needs. We developed in 2017 the SCORE internal 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). From the strategy perspective, the “Sustainable Solutions for Growth” working group strives to improve the solutions offered by Saint-Gobain by taking into account the expectations of various stakeholders as well as potential changes in regulatory requirements. It is managed at Group level by several departments: Strategy, Marketing and CSR.

**Comment**

<table>
<thead>
<tr>
<th>Identifier</th>
<th>Opp3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Where in the value chain does the opportunity occur?</strong></td>
<td>Downstream</td>
</tr>
<tr>
<td><strong>Opportunity type</strong></td>
<td>Products and services</td>
</tr>
<tr>
<td><strong>Primary climate-related opportunity driver</strong></td>
<td>Development and/or expansion of low emission goods and services</td>
</tr>
<tr>
<td><strong>Primary potential financial impact</strong></td>
<td>Increased revenues resulting from increased demand for products and services</td>
</tr>
<tr>
<td><strong>Company-specific description</strong></td>
<td>The development or expansion of low carbon products avoiding carbon emissions such as our insulation products leading to energy efficient buildings, represents an opportunity for the Group. Indeed, after a use for an average of three months, the Saint-Gobain Group’s insulation solutions (mineral wool, glazing,...) offset the emissions linked to the whole of their life cycle. As part of Saint-Gobain’s “Wind of Change” climate scenario, it is expected that there will be higher consumer awareness and demand for sustainable products, and that there will be higher levels of government incentives or regulation around including sustainable/insulating products within buildings, thus driving up demand for these products. Thanks to its strong exposure to the renovation market, the Group is ideally situated to play a decisive role in the national and European green recovery plans for the energy transition, which should support Saint-Gobain’s structural growth. Another example relates to lighter windshield to reduce CO2 emissions from cars, and also on adapting our offer to the development of hybrid or 100% electric vehicles</td>
</tr>
</tbody>
</table>
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)
- 450,000,000

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. We calculated our potential financial figures considering what is forecasted for the renovation market in France, in alignment with French government objectives: hypothesis is that the number of renovations will increase by +70% over the ten next years. Considering a turnover of 40,000M€ for the Group, and that this market represents around 16% of it, the potential financial figure is around 450M€ per year over the ten next years. The calculation is therefore (70%/10 years ie 7% per year) multiplied by 40,000M€ multiplied by 16%=448M€ that we have updated to 450M€.

Cost to realize opportunity
- 0

Strategy to realize opportunity and explanation of cost calculation
Explanation of cost calculation:
80% of our sales are linked to habitat (48% renovation, 22% new residential construction and 10% new non-residential construction). Thanks to its strong exposure to the renovation market, the Group is ideally situated to play a decisive role in the national and European green recovery plans for the energy transition, which should support Saint-Gobain’s structural growth. It is why the cost to realize opportunity is evaluated at zero.

In Europe, the residential renovation market alone accounted for nearly €420 billion in 2020 at the European level. This major trend is largely due to the need for energy efficiency in buildings, which is considered essential to achieve carbon neutrality. However, the majority of European buildings of 2050 have already been built. Renovation will therefore be increasingly stimulated by growing energy efficiency
requirements, which are appearing in regulatory changes currently being made, and by energy renovation programs supported by public authorities. The health crisis of 2020 had a dual impact on this sector: a circumstantial impact, on renovation sites, due to containment measures; and a more structural impact, due to the adoption by many countries of recovery plans with a strong “green” component. Due to their unprecedented scale, they will be structuring the market for several years. At European level, 30% of the recovery plan proposed by the Commission is dedicated to climate action.

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) Is your organization’s low-carbon transition plan a scheduled resolution item at Annual General Meetings (AGMs)?

<table>
<thead>
<tr>
<th>Is your low-carbon transition plan a scheduled resolution item at AGMs?</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Our low-carbon transition plan has already been communicated to our investors (see “Saint-Gobain carbon neutrality: leading towards sustainable Building &amp; Industry” <a href="https://www.saint-gobain.com/sites/sgcom.master/files/sustainability_commitments_-_communication_financiere_-_nov_2020_-_11122020_-_0h15.pdf">https://www.saint-gobain.com/sites/sgcom.master/files/sustainability_commitments_-_communication_financiere_-_nov_2020_-_11122020_-_0h15.pdf</a>)</td>
</tr>
</tbody>
</table>

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

Yes, qualitative and quantitative
**C3.2a**

(C3.2a) Provide details of your organization’s use of climate-related scenario analysis.

<table>
<thead>
<tr>
<th>Climate-related scenarios and models applied</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other, please specify 1,5-1,7°C/2,3-3,7°C/4,1-4,8°C</td>
<td>Description of selected scenarios, their construction, time horizons and relevance, considered areas of our organization in the scenario analysis: For strategic planning purposes, Saint-Gobain has built three qualitative long-term climate scenarios towards 2050, respectively called “Wind of change”, “The show might go on” and “Highway to Climate hell”; those are particularly relevant in the frame of our 2050 carbon neutrality objective; for each, impact is given in terms of general concept, macro-economic Framework, mobility, construction needs which are of particular relevance for our business. Details of a sustainable city and what methods of construction would emerge are provided per scenario. Scenarios have been built by corporate departements (Strategy, Sustainable Development, CSR) using recognized expertise (International Energy Agency, energy suppliers). They confirm our strategy to work on both pillars, performance and sustainability (including climate) in any of our decisions. In parallel, 150 top managers of the company have assessed in working groups 4 strategic internal post covid scenarios including climate change impact, to anticipate the impacts of those scenarios on their markets in order to be resilient. Company-specific description of the results of the scenario analysis: The scenario analysis informed us about the consequences of climate change effects on our business; depending on the scenario, the impact on our sustainable habitat business will significantly vary: an increased-temperature sustainable future (Saint-Gobain’s “Wind of Change” climate scenario) will see more consumer focus on sustainable companies leading to more innovation, low-carbon products, and circular Economy. How the results of the scenario analysis have informed our business objectives and strategy: From our scenarios, we have identified the need to develop low-carbon products. Indeed, in response to the challenges of population growth, it is imperative to contribute to the construction of resilient cities that ensure the well-being of individuals in a context of resource scarcity and climate change. Case study of how the results of the scenario analysis have directly influenced our business objectives and strategy: With the objective to be at the forefront of innovative solutions for sustainable construction, we highlight as case study that we have accelerated our presence in the construction chemicals sector. Indeed, the major move towards low-carbon concrete will be made possible by the growing application of additives, which contribute to the strong reduction of concrete CO2 footprint and address the aggregate shortage and therefore aid the development of the circular economy. Additives also address urbanization mega-trends and infrastructure</td>
</tr>
</tbody>
</table>
needs by providing cost effectiveness, speed and productivity gains. Our presence in the sector of construction chemicals will increase through the acquisitions of both Chryso and Duraviz (announced in May 2021) and the inauguration in May 2021 of a new construction chemicals plant in Malaysia.

For details of our scenarios, check our 2020 URD on pages 97/98 (link in introduction). Some details of the 2 extreme scenarios are:

1.5-1.7°C:
- Achievement of the “Global zero carbon” objective Around 2070
- Construction needs / Sea level rise (compared to 1986-2005): +0.4 meters
- Construction needs / Average length of drought periods: 9 to 11 months
- Construction needs / Number of tropical nights (compared to 1981-2000): 16 days
- Mobility / % of electric cars in the vehicle fleet in 2050 (2019 = 8%): 75%

4.1-4.8°C:
- Achievement of the “Global zero carbon” objective Around 2100
- Construction needs / Sea level rise (compared to 1986-2005): +0.6 meters
- Construction needs / Average length of drought periods: 22 months
- Construction needs / Number of tropical nights (compared to 1981-2000): 53 days
- Mobility / % of electric cars in the vehicle fleet in 2050 (2019 = 8%): 45%

(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

<table>
<thead>
<tr>
<th>Have climate-related risks and opportunities influenced your strategy in this area?</th>
<th>Description of influence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Products and services</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>i) Description of how our strategy in this area has been influenced, time horizons it covers: Time-horizon covered are short-term (avoidance of emissions) and medium-term (low-carbon products). As part of Saint-Gobain’s “Wind of Change” climate scenario, we expect that there will be more demand for sustainable products that improve energy efficiency as consumers become more aware of environmental</td>
</tr>
</tbody>
</table>
issues and as governments incentivize such developments, as this is already the case in some European countries for green homes. Opportunities to boost revenue from products relate to 1) the development of low-carbon products 2) products leading to avoidance of emissions with our building insulation products or through our performant and lighter automotive windshields, reducing vehicle weight and lowering the CO2 emissions of cars. It is expected that policy and regulatory changes will increase demand in all areas.

The “Sustainable Solutions for Growth” working group has been created and strives to improve the solutions offered by the Group by considering the expectations of stakeholders and potential changes in regulatory requirements. It is managed at Group level by Strategy, Marketing and CSR. The purpose of the Group is to horizon scan for emerging opportunities and optimize on demand for sustainable product solutions. We also have processes in place, managed by the Sustainable Development Department, to provide to our customers the carbon intensity of our products through “Environmental Product Declaration” and the sustainability of our products, so that we can measure and manage progress toward more sustainable solutions.

ii) Case study of the most substantial strategic decision:
With the objective to be at the forefront of innovative solutions for sustainable construction, Saint-Gobain continuously scans the market for sustainable offerings that can be incorporated into the wider Group. We have accelerated our presence in the construction chemicals sector through the acquisitions of both Chryso and Duraviz (both announced in May 2021) and the inauguration in May 2021 of a new construction chemicals plant in Malaysia.

Chryso is a leading global player in the construction chemicals market providing innovative solutions such as additives for sustainable construction (https://www.saint-gobain.com/sites/sgcom.master/files/20210520_chryso_cp_va.pdf)

<table>
<thead>
<tr>
<th>Supply chain and/or value chain</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>i) Description of how our strategy in this area has been influenced and the time horizon(s) it covers:</td>
<td></td>
</tr>
<tr>
<td>Time-horizon covered: Medium-term</td>
<td></td>
</tr>
<tr>
<td>The main identified risk related to our supply chain is that of increasing energy costs in a more highly regulated climate future, that may increase our production cost in the medium-term, particularly for our new low-carbon energy supplies that will be needed to reach our 2030 SBT validated targets, as well as to increased costs throughout our supply chain as a result of increased costs of carbon.</td>
<td></td>
</tr>
<tr>
<td>In order to achieve reductions in carbon emissions across our supply chain, Saint-Gobain is working with suppliers to compare their performance</td>
<td></td>
</tr>
</tbody>
</table>
on the basis of CO2 emissions criteria, both in terms of their operations and for the products concerned. In addition, we ask suppliers to sign our Responsible Purchasing Charter, collect detailed information on their commitments in terms of sustainable development, and encourage particularly large emitters to adopt a Science Based Target approach. See https://www.saint-gobain.com/sites/sgcom.master/files/20201112_roadmap_net_zero_carbon_va.pdf

i) Description of how our strategy in this area has been influenced and the time horizon it covers:

Time horizon: Medium term

In Saint-Gobain’s “Wind of Change” climate scenario, it is expected that there will be more demand for low carbon and sustainable product offerings, and there will be a higher focus on sustainability when making large-scale purchasing decisions. In order to ensure that Saint-Gobain remains competitive and meets the needs of a changing consumer base, a significant Research and Development program is in place. Our enhanced commitment towards carbon neutrality has led Saint-Gobain to update its strategy of R&D investments focusing on several pillars, that are developed within our R&D CO2 transversal program. The program is developed in coordination with our business units and our Technology and Industrial efficiency department and covers 5 key areas: 1) working on our products (recycling, weight reduction, less carbonated material,…), 2) energy efficiency in our processes to adapt our consumption to our needs or to recover heat losses, 3) possibility to use future alternative energy such as biogas or hydrogen, 4) possibility to electrify as much as possible
our different processes and finally 5) considering Carbon Capture Use or Storage.

ii) Case study of the most substantial strategic decision:
For our glass production activities, we have installed ORC turbines in India and Italy to recover heat losses and produce energy. This is a mature technology but among the first installations on flat glass production furnaces. The annual CO2 savings amount to 3.4 kt and 6kt for respectively the Italian and the Indian site. The profitability linked to the reduction of the electricity bill is of around 430 k€/year (hyp. 50 €/MWh) per ORC.

As other example, in May 2021, Saint-Gobain announced that it will create the first net zero carbon plasterboard plant in Norway through the Fredrikstad facility, thanks to an increased electrification of its production process.

Two internal carbon prices have also been introduced in 2016, one for CAPEX and one for R&D projects, to support the viability of the Group’s projects and strategy. The two prices have been increased in February 2021 to fit with the carbon price evolution at worldwide level. As a strategic decision, we have decided to allocate an annual 100 M€ CAPEX and R&D budget over the next 10 years.

<table>
<thead>
<tr>
<th>Operation</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>i) Description of how our strategy in this area has been influenced and the time horizon(s) it covers: Time horizon: Short-medium term. In Saint-Gobain’s “Highway to Climate Hell” climate scenario, it is expected that there will be increased levels of acute physical climate events. The main risk for our operations is linked to two aspects: 1) possible lack of adaptation to climate change acute physical events in the short term 2) possible lack of attenuation of our impact to climate change leading to overcost in the medium-term from carbon pricing mechanisms Regarding adaptation, our strategy remains to assess on an annual basis our exposure to that risk through regular local audits and self-assessments. 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). Regarding the increased cost of carbon on our operations, Saint-Gobain, as part of its Roadmap to Carbon Neutrality is developing detailed roadmaps for each industrial process, based on knowledge of the local market, regulatory environment, and best available techniques. ii) Case study examples of the most substantial strategic decisions:</td>
<td></td>
</tr>
</tbody>
</table>
As case study, we can highlight our 2018 Egyptian event (flood event in one of our glass production facility) where a preventive and corrective action plan has been built including:
- Daily weather forecast monitoring to check for potential rainstorm,
- Digging a protection trench inside the property to divert the water,
- Building a perimeter flood protection wall,
- Raising the road elevation
- Implementation of a flood emergency response plan, including emergency response teams

Similar specific action plans are built for at risk sites.

Regarding attenuation, our strategy focuses on less emissions through:
- ambitious 2030 SBT that we have set (-33% for 2030 vs 2017 for scope1+2)
- envelope of 100,000,000€ every year over the 10 next years for CAPEX and R&D investments related to reduction of carbon emissions.
- internal shadow carbon price for investment and R&D supporting the development of low carbon technologies even in places where carbon is not yet regulated

C3.4

(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

<table>
<thead>
<tr>
<th>Financial planning elements that have been influenced</th>
<th>Description of influence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues</td>
<td>1) Revenues</td>
</tr>
<tr>
<td>Indirect costs</td>
<td>Time horizon: Short-term</td>
</tr>
<tr>
<td>Capital expenditures</td>
<td>Our 2020 sales amount 38,128 M€ and 80% are linked to habitat (48% renovation, 22% new residential construction and 10% new non-residential construction)</td>
</tr>
<tr>
<td>Capital allocation</td>
<td>Thanks to its strong exposure to the renovation market, the Group is ideally situated to play a decisive role in the national and European green recovery plans for the energy transition, which should support Saint-Gobain’s structural growth. In Europe, the residential renovation market alone accounted for nearly €420 billion in 2020 at the European level. This major trend is largely due to the need for energy efficiency in buildings, which is considered essential to achieve carbon neutrality. However, the majority of European buildings of 2050 have already been built. Renovation will therefore be increasingly stimulated by growing energy efficiency requirements, which are appearing in regulatory changes currently being made, and by energy renovation programs supported by public authorities.</td>
</tr>
</tbody>
</table>
Case study: The health crisis of 2020 had a dual impact on this sector: a circumstantial impact, on renovation sites, due to containment measures; and a more structural impact, due to the adoption by many countries of recovery plans with a strong “green” component. Due to their unprecedented scale, they will be structuring the market for several years. In France, the €100 billion plan to support the economy in the face of the crisis therefore provides for a budget of €30 billion for ecological transition and its priority sectors such as the energy renovation of buildings, which alone will absorb nearly €7 billion. In this context, the “MaPrimeRenov” plan, extended in 2020 and with a budget of €2 billion over the next two years, promotes the acceleration of energy renovation; the authorities have estimated that it could entail a total amount of €6 billion worth of construction over two years. At European level, 30% of the recovery plan proposed by the Commission is dedicated to climate action. We have assessed that in the next ten years, the Group could benefit from around 1.2% annual growth of its turnover only with the increase of renovation in France.

2) Indirect costs:
Time horizon: medium-term. Carbon pricing mechanisms may impact our indirect cost whenever we have a tax or allowance to buy to balance our emissions. EU-ETS is an example of possible impact for our company. Ensuring the control of our direct emissions and prudent management of previous allocations are two principles that Saint-Gobain has applied since the introduction of European regulations. Nevertheless, the free allocation rules are stricter since 2021, due to the entry in force of the period IV (2021-2030) and 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 within a specific CO2 committee to manage the related risk. Based on current information, the Group believes that it will be able to maintain self-sufficiency in quotas in the medium term given its current stock level of more than 7 million tons of allocations. This means that our financial planning will evolve in the medium term based on the remaining free allocation and our results regarding carbon emissions reduction. The Group has budgeted an envelope of 100,000,000€ every year over the 10 next years for CAPEX and R&D investments for carrying out its carbon roadmaps.

3) Capital expenditures:
Time horizon: Medium-term. The deployment of our carbon roadmaps to meet our 2030 and 2050 objectives has led the Group to update its financial planning by delivering 100M€ per year over the 10 next years for CAPEX and R&D investments. This envelope will focus on several
pillars: working on our products (recycling, weight reduction, less carbonated material,…), energy efficiency in our processes to adapt our consumption to our needs or to recover heat losses, possibility to use future alternative energy such as biogas or hydrogen, possibility to electrify as much as possible our different processes and finally considering Carbon Capture Use or Storage. As example, on 24th of May 2021, Saint-Gobain announced that it will create for 2023 the first net zero carbon plasterboard plant in Norway through the Fredrikstad facility, thanks to an increased electrification of its production process. This investment is of approximately €25 million.

4) Capital allocation:
Time horizon: short-term. Our process of validating investment has integrated since 2016 the use of an internal carbon price to speed up the Group’s transition to low-carbon technologies. It was fixed at €30 per ton, updated to 50€ in February 2021, 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 for ORC installation in Italy in 2019 is a good case study showing that investment can be achieved by applying such internal carbon price.

C3.4a

(C3.4a) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).

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.

<table>
<thead>
<tr>
<th>Target reference number</th>
<th>Abs 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year target was set</td>
<td></td>
</tr>
</tbody>
</table>
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)
  13,428,176

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)
  100

Target year
  2030

Targeted reduction from base year (%)
  33

Covered emissions in target year (metric tons CO2e) [auto-calculated]
  8,996,877.92

Covered emissions in reporting year (metric tons CO2e)
  10,446,727

% of target achieved [auto-calculated]
  67.2816169478

Target status in reporting year
  Underway

Is this a science-based target?
  Yes, and this target has been approved by the Science-Based Targets initiative

Target ambition
  Well below 2°C aligned

Please explain (including target coverage)
  Compared to last year, our target has been updated with 2030 as target year (vs 2025 previously) in a well below 2°C trajectory (vs 2°C previously). Both target and reference years include our 2019 acquisition of Continental Building Products in North America. Our 2020 result is linked to this integration, but also partly to both performance and activity in the frame of the COVID19 pandemic.

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)
17,358,152

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)
67.2

Target year
2030

Targeted reduction from base year (%)
16

Covered emissions in target year (metric tons CO2e) [auto-calculated]
14,580,847.68

Covered emissions in reporting year (metric tons CO2e)
17,358,152

% of target achieved [auto-calculated]
0

Target status in reporting year
Underway

Is this a science-based target?
Yes, and this target has been approved by the Science-Based Targets initiative

Target ambition
Well below 2°C aligned

Please explain (including target coverage)
Compared to last year, our target has been updated with 2030 as target year (vs 2025 previously) in a well below 2°C trajectory (vs 2°C previously). 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. The % of target achieved is at zero because the study is not updated every year: it will be updated with 2021.
C4.1b

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

<table>
<thead>
<tr>
<th>Target reference number</th>
<th>Int 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year target was set</td>
<td>2011</td>
</tr>
<tr>
<td>Target coverage</td>
<td>Company-wide</td>
</tr>
<tr>
<td>Scope(s) (or Scope 3 category)</td>
<td>Scope 1+2 (location-based)</td>
</tr>
<tr>
<td>Intensity metric</td>
<td>Metric tons CO2e per unit of production</td>
</tr>
<tr>
<td>Base year</td>
<td>2010</td>
</tr>
<tr>
<td>Intensity figure in base year (metric tons CO2e per unit of activity)</td>
<td>17,438,524</td>
</tr>
<tr>
<td>% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure</td>
<td>100</td>
</tr>
<tr>
<td>Target year</td>
<td>2025</td>
</tr>
<tr>
<td>Targeted reduction from base year (%)</td>
<td>20</td>
</tr>
<tr>
<td>Intensity figure in target year (metric tons CO2e per unit of activity) [auto-calculated]</td>
<td>13,950,819.2</td>
</tr>
<tr>
<td>% change anticipated in absolute Scope 1+2 emissions</td>
<td>-20</td>
</tr>
<tr>
<td>% change anticipated in absolute Scope 3 emissions</td>
<td>0</td>
</tr>
<tr>
<td>Intensity figure in reporting year (metric tons CO2e per unit of activity)</td>
<td>15,311,024</td>
</tr>
<tr>
<td>% of target achieved [auto-calculated]</td>
<td></td>
</tr>
</tbody>
</table>
61.0000020644

**Target status in reporting year**
Underway

**Is this a science-based target?**
No, but we are reporting another target that is science-based

**Target ambition**

**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 12.2% reduction over 2010-2020. Our result in 2020 has been compared to 2019 positively impacted by our performance but wrongly impacted by the COVID19 pandemic (need to keep glass furnaces in heating despite reduced activity). Note that provided data in the columns “Intensity figure in base year”, “Intensity figure in target year”, “Intensity figure in reporting year” are in absolute values and not in intensity, in order to fit with the reported percentages. Indeed Saint-Gobain produces a high variety of products and it is not possible nor convenient to use a sole unit of production to express the Group result.

C4.2

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

C4.2c

(C4.2c) Provide details of your net-zero target(s).

<table>
<thead>
<tr>
<th>Target reference number</th>
</tr>
</thead>
<tbody>
<tr>
<td>NZ1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Target coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company-wide</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Absolute/intensity emission target(s) linked to this net-zero target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abs1</td>
</tr>
<tr>
<td>Abs2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Target year for achieving net zero</th>
</tr>
</thead>
<tbody>
<tr>
<td>2050</td>
</tr>
</tbody>
</table>

**Is this a science-based target?**
No, but we are reporting another target that is science-based
Please explain (including target coverage)

In September 2019, during the Climate Action Summit convened by the General Secretary of the United Nations, our President 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. This target cannot yet be validated by the Science-Based Targets initiative which is presently setting up the basis of such validation.

We therefore are reporting interim SBT validated targets aligned with a well-below 2°C scenario.

The SBTi indeed is “recognizing differences among sectors and technical barriers”, particularly for energy-intensive industries such as Saint-Gobain and allows the following option: “companies setting 5 to 15 years science based targets (SBTs) aligned with a well-below 2°C trajectory will be expected to decarbonize more aggressively when setting their next SBT to ensure their mitigation strategy aligns with their 2050 net-zero goal. Through this option companies are also committing to reach net-zero GHG emissions by 2050.”

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.

<table>
<thead>
<tr>
<th>Stage</th>
<th>Number of initiatives</th>
<th>Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under investigation</td>
<td>65</td>
<td></td>
</tr>
<tr>
<td>To be implemented*</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Implementation commenced*</td>
<td>4</td>
<td>75,300</td>
</tr>
<tr>
<td>Implemented*</td>
<td>6</td>
<td>9,005</td>
</tr>
<tr>
<td>Not to be implemented</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

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
   Smart control system

Estimated annual CO2e savings (metric tonnes CO2e)
   600

Scope(s)
   Scope 1

Voluntary/Mandatory
   Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
   69,000

Investment required (unit currency – as specified in C0.4)
   0

Payback period
   <1 year

Estimated lifetime of the initiative
   Ongoing

Comment
   Dryer 4.0

---

Initiative category & Initiative type
   Energy efficiency in production processes
   Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)
   6,100

Scope(s)
   Scope 1

Voluntary/Mandatory
   Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
   729,500

Investment required (unit currency – as specified in C0.4)
   0

Payback period
   <1 year
**Estimated lifetime of the initiative**
- Ongoing

**Comment**
- Projects of water reduction in 4 of our plants

| Initiative category & Initiative type | Energy efficiency in production processes  
<table>
<thead>
<tr>
<th></th>
<th>Waste heat recovery</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Estimated annual CO2e savings (metric tonnes CO2e)</strong></td>
<td>150</td>
</tr>
<tr>
<td><strong>Scope(s)</strong></td>
<td>Scope 1</td>
</tr>
<tr>
<td><strong>Voluntary/Mandatory</strong></td>
<td>Voluntary</td>
</tr>
<tr>
<td><strong>Annual monetary savings (unit currency – as specified in C0.4)</strong></td>
<td>10,667</td>
</tr>
<tr>
<td><strong>Investment required (unit currency – as specified in C0.4)</strong></td>
<td>16,000</td>
</tr>
<tr>
<td><strong>Payback period</strong></td>
<td>1-3 years</td>
</tr>
<tr>
<td><strong>Estimated lifetime of the initiative</strong></td>
<td>16-20 years</td>
</tr>
<tr>
<td><strong>Comment</strong></td>
<td>Heat Recovery Calcination project</td>
</tr>
</tbody>
</table>

| Initiative category & Initiative type | Energy efficiency in buildings  
<table>
<thead>
<tr>
<th></th>
<th>Lighting</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Estimated annual CO2e savings (metric tonnes CO2e)</strong></td>
<td>500</td>
</tr>
<tr>
<td><strong>Scope(s)</strong></td>
<td>Scope 2 (location-based)</td>
</tr>
<tr>
<td><strong>Voluntary/Mandatory</strong></td>
<td>Voluntary</td>
</tr>
<tr>
<td><strong>Annual monetary savings (unit currency – as specified in C0.4)</strong></td>
<td></td>
</tr>
</tbody>
</table>
141,913

**Investment required (unit currency – as specified in C0.4)**
652,174

**Payback period**
4-10 years

**Estimated lifetime of the initiative**
16-20 years

**Comment**
LED project in one plant

Initiative category & Initiative type
Energy efficiency in production processes
Waste heat recovery

**Estimated annual CO2e savings (metric tonnes CO2e)**
1,640

**Scope(s)**
Scope 2 (location-based)

**Voluntary/Mandatory**
Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**
247,470

**Investment required (unit currency – as specified in C0.4)**
81,861

**Payback period**
<1 year

**Estimated lifetime of the initiative**
16-20 years

**Comment**
waste heat recovery instead electrical heaters

Initiative category & Initiative type
Energy efficiency in production processes
Motors and drives

**Estimated annual CO2e savings (metric tonnes CO2e)**
15
**Scope(s)**
Scope 2 (location-based)

**Voluntary/Mandatory**
Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**
5,800

**Investment required (unit currency – as specified in C0.4)**
16,240

**Payback period**
1-3 years

**Estimated lifetime of the initiative**
16-20 years

**Comment**
new motor at crushing unit

---

**C4.3c**

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

<table>
<thead>
<tr>
<th>Method</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compliance with regulatory requirements/standards</td>
<td>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 strategic plan. Deployment of BAT is also part of our carbon roadmaps that we have set up to reach our 2030 and 2050 carbon objectives.</td>
</tr>
<tr>
<td>Dedicated budget for energy efficiency</td>
<td>The Group has defined research and development programs to especially improve the energy efficiency of our manufacturing processes such as 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. The deployment of our carbon roadmaps</td>
</tr>
</tbody>
</table>
to meet our 2030 and 2050 objectives has led the Group to provide a budget of 100M€ per year over the 10 next years for CAPEX and R&D investments, energy efficiency being one of the levers of this initiative.

| 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 green electricity, biogas, 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 and 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 and to some investments in plants to upgrade/install depollution units. The Group environmental budget in 2020 amounted 86,4M€. |
| 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 2020, the two sites of glass production at Chennai (India) and Pisa (Italy) were awarded for their installation of ORC turbine producing utilities from recovered heat. |
| Internal incentives/recognition programs | Saint-Gobain has launched in 2021 an internal Carbon Fund. First implemented in a pilot region, Northern Europe, it aims to accelerate the reduction of non-industrial CO2 emissions through the everyday actions of employees and targeted investments on sites. The areas covered by these investments are mainly related to sustainable employee mobility, renewable energies and improving well-being and energy efficiency at Saint-Gobain sites. These projects, proposed and selected by employees, concern their professional environment. |
| 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 shadow 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 fixed at €30 per ton, updated to 50€ in February 2021, 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, updated to 150€ in February 2021, 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. In addition, since 2017, more than 2300 top managers have seen CO2 emission reduction target (as well as 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
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. In addition, 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.

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.

- IEA CO2 Emissions from Fuel Combustion
- IPCC Guidelines for National Greenhouse Gas Inventories, 2006

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)

7,915,725

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 have more than 800 industrial locations therefore we use a market-based approach particularly 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 | 2,531,002 |

**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**

<table>
<thead>
<tr>
<th>Evaluation status</th>
<th>Relevant, calculated</th>
</tr>
</thead>
</table>

**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. A next update is foreseen for the year 2021.

Capital goods

<table>
<thead>
<tr>
<th>Evaluation status</th>
<th>Relevant, calculated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metric tonnes CO2e</td>
<td>53,813</td>
</tr>
</tbody>
</table>

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. A next update is foreseen for the year 2021.

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

<table>
<thead>
<tr>
<th>Evaluation status</th>
<th>Relevant, calculated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metric tonnes CO2e</td>
<td>2,936,344</td>
</tr>
</tbody>
</table>

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. A next update is foreseen for the year 2021.
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. A next update is foreseen for the year 2021.

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. A next update is foreseen for the year 2021.

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. A next update is foreseen for the year 2021.

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. A next update is foreseen for the year 2021.

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.
Following our 2019 study, this is considered as marginal for Saint-Gobain compared to reported scope 1 and 2 emissions.

**Downstream transportation and distribution**

<table>
<thead>
<tr>
<th>Evaluation status</th>
<th>Relevant, calculated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metric tonnes CO2e</td>
<td>6,192,139</td>
</tr>
</tbody>
</table>

**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. A next update is foreseen for the year 2021.

**Processing of sold products**

<table>
<thead>
<tr>
<th>Evaluation status</th>
<th>Relevant, calculated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metric tonnes CO2e</td>
<td>225,454</td>
</tr>
</tbody>
</table>

**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. A next update is foreseen for the year 2021.

**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. A next update is foreseen for the year 2021. 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. A next update is foreseen for the year 2021.

**Downstream leased assets**

<table>
<thead>
<tr>
<th>Evaluation status</th>
<th>Relevant, calculated</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Metric tonnes CO2e</strong></td>
<td>84</td>
</tr>
</tbody>
</table>

**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. A next update is foreseen for the year 2021.

**Franchises**

<table>
<thead>
<tr>
<th>Evaluation status</th>
<th>Relevant, calculated</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Metric tonnes CO2e</strong></td>
<td>5,277</td>
</tr>
</tbody>
</table>

**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. A next update is foreseen for the year 2021.

**Investments**

<table>
<thead>
<tr>
<th>Evaluation status</th>
<th>Relevant, calculated</th>
</tr>
</thead>
</table>
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. A next update is foreseen for the year 2021.

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?
Yes

C6.7a

(C6.7a) Provide the emissions from biogenic carbon relevant to your organization in metric tons CO2.

<table>
<thead>
<tr>
<th>CO2 emissions from biogenic carbon (metric tons CO2)</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row 1 12,225</td>
<td>This amount is marginal (it is an order of magnitude of around 0.1% of our scope1+2 emissions) and is mainly linked to charcoal consumption in some of our Brazilian facilities.</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Intensity figure</th>
<th>0.00027</th>
</tr>
</thead>
</table>

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

10,446,727

**Metric denominator**

unit total revenue

**Metric denominator: Unit total**

38,128,000,000

**Scope 2 figure used**

Location-based

**% change from previous year**

8

**Direction of change**

Increased

**Reason for change**

Our result in 2020 has been compared to 2019 positively impacted by our performance but globally wrongly impacted by the COVID19 pandemic (need to keep glass furnaces in heating despite reduced activity).

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.

<table>
<thead>
<tr>
<th>Country/Region</th>
<th>Scope 1 emissions (metric tons CO2e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albania</td>
<td>81</td>
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<tr>
<td>Country</td>
<td>Score</td>
</tr>
<tr>
<td>-----------</td>
<td>-------</td>
</tr>
<tr>
<td>Algeria</td>
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<tr>
<td>Argentina</td>
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<tr>
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</tr>
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<td>Jordan</td>
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<td>Kuwait</td>
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<td>Country</td>
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<td>---------------------------------------------</td>
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<td>94,591</td>
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<td>329,990</td>
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<td>United States of America</td>
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<td>Ethiopia</td>
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<tr>
<td>Kazakhstan</td>
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</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Scope 1 emissions (metric tons CO2e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glass Activity</td>
<td>3,749,252</td>
</tr>
<tr>
<td>Pipe Activity</td>
<td>878,978</td>
</tr>
<tr>
<td>Other</td>
<td>3,287,495</td>
</tr>
</tbody>
</table>

C7.5

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

<table>
<thead>
<tr>
<th>Country/Region</th>
<th>Scope 2, location-based (metric tons CO2e)</th>
<th>Scope 2, market-based (metric tons CO2e)</th>
<th>Purchased and consumed electricity, heat, steam or cooling (MWh)</th>
<th>Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albania</td>
<td>3</td>
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<td>Change</td>
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<td>56,447</td>
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<td></td>
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<tr>
<td>Lebanon</td>
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<td>28</td>
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<td>33,799</td>
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<td></td>
<td></td>
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<td>103,846</td>
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<tr>
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<td>Singapore</td>
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<tr>
<td>Slovakia</td>
<td>735</td>
<td>4,634</td>
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<tr>
<td>Country</td>
<td>Scope 2, location-based (metric tons CO2e)</td>
<td>Scope 2, market-based (metric tons CO2e)</td>
<td></td>
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</tr>
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<td>1,284,771</td>
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<td>157</td>
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<td>Ethiopia</td>
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<td>0</td>
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<tr>
<td>Kazakhstan</td>
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<td></td>
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</tbody>
</table>

**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.*

<table>
<thead>
<tr>
<th>Activity</th>
<th>Scope 2, location-based (metric tons CO2e)</th>
<th>Scope 2, market-based (metric tons CO2e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glass Activity</td>
<td>1,015,778</td>
<td></td>
</tr>
<tr>
<td>Pipe Activity</td>
<td>79,101</td>
<td></td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Change in emissions (metric tons CO2e)</th>
<th>Direction of change</th>
<th>Emissions value (percentage)</th>
<th>Please explain calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in renewable energy consumption</td>
<td>0</td>
<td>No change</td>
<td>0</td>
</tr>
<tr>
<td>Other emissions reduction activities</td>
<td>440,917</td>
<td>Decreased</td>
<td>4.1</td>
</tr>
<tr>
<td>Divestment</td>
<td>Acquisitions</td>
<td>Increased</td>
<td>3.9</td>
</tr>
<tr>
<td>Mergers</td>
<td>Change in output</td>
<td>Decreased</td>
<td>2.7</td>
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</table>
2019. Our total scope 1 and 2 emissions in 2019 were 10,758,875 Mt CO2e, so we estimated a decrease of 2.7% through 
\[
\frac{0.290360}{10.758875} \times 100 = 2.7\% 
\]

<table>
<thead>
<tr>
<th>Change in methodology</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Change in boundary</td>
<td></td>
</tr>
<tr>
<td>Change in physical operating conditions</td>
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<tr>
<td>Unidentified</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Energy-related activity</th>
<th>Indicate whether your organization undertook this energy-related activity in the reporting year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumption of fuel (excluding feedstocks)</td>
<td>Yes</td>
</tr>
<tr>
<td>Consumption of purchased or acquired electricity</td>
<td>Yes</td>
</tr>
<tr>
<td>Consumption of purchased or acquired heat</td>
<td>Yes</td>
</tr>
</tbody>
</table>
C8.2a

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

<table>
<thead>
<tr>
<th>Consumption</th>
<th>Yes</th>
<th>MWh from renewable sources</th>
<th>MWh from non-renewable sources</th>
<th>Total (renewable and non-renewable) MWh</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumption of fuel (excluding feedstock)</td>
<td>LHV (lower heating value)</td>
<td>903,531</td>
<td>32,116,627</td>
<td>33,020,158</td>
</tr>
<tr>
<td>Consumption of purchased or acquired electricity</td>
<td>1,494,254</td>
<td>6,397,006</td>
<td>7,891,260</td>
<td></td>
</tr>
<tr>
<td>Consumption of purchased or acquired heat</td>
<td>0</td>
<td>12,352</td>
<td>12,352</td>
<td></td>
</tr>
<tr>
<td>Consumption of purchased or acquired steam</td>
<td>0</td>
<td>82,313</td>
<td>82,313</td>
<td></td>
</tr>
<tr>
<td>Consumption of self-generated non-fuel renewable energy</td>
<td>14,071</td>
<td></td>
<td>14,071</td>
<td></td>
</tr>
<tr>
<td>Total energy consumption</td>
<td>2,411,856</td>
<td>38,608,298</td>
<td>41,020,154</td>
<td></td>
</tr>
</tbody>
</table>

C8.2b

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

<table>
<thead>
<tr>
<th>Application</th>
<th>Indicate whether your organization undertakes this fuel application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumption of fuel for the generation of electricity</td>
<td>Yes</td>
</tr>
<tr>
<td>Consumption of fuel for the generation of heat</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Consumption of fuel for the generation of steam | No
---|---
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.

<table>
<thead>
<tr>
<th>Fuels (excluding feedstocks)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Charcoal</td>
<td></td>
</tr>
</tbody>
</table>

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

903,531

**MWh fuel consumed for self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

903,531

**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**

---

<table>
<thead>
<tr>
<th>Fuels (excluding feedstocks)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Coke</td>
<td></td>
</tr>
</tbody>
</table>

**Heating value**
LHV (lower heating value)

**Total fuel MWh consumed by the organization**
2,210,232

**MWh fuel consumed for self-generation of electricity**
0

**MWh fuel consumed for self-generation of heat**
2,210,232

**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

---

**Fuels (excluding feedstocks)**

- Diesel

**Heating value**

- LHV (lower heating value)

**Total fuel MWh consumed by the organization**
485,533

**MWh fuel consumed for self-generation of electricity**
1,053

**MWh fuel consumed for self-generation of heat**
480,207

**MWh fuel consumed for self-cogeneration or self-trigeneration**
4,273

**Emission factor**
267

**Unit**
kg CO2e 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

698,905

MWh fuel consumed for self-generation of electricity

788

MWh fuel consumed for self-generation of heat

698,117

MWh fuel consumed for self-cogeneration or self-trigeneration

0

Emission factor

279

Unit

kg CO2e 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

1,211,358

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

1,211,358
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
471,909

MWh fuel consumed for self-generation of electricity
10

MWh fuel consumed for self-generation of heat
471,869

MWh fuel consumed for self-cogeneration or self-trigeneration
30

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
27,038,690

MWh fuel consumed for self-generation of electricity
106,919

MWh fuel consumed for self-generation of heat
26,773,473

MWh fuel consumed for self-cogeneration or self-trigeneration
158,298

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.

<table>
<thead>
<tr>
<th></th>
<th>Total Gross generation (MWh)</th>
<th>Generation that is consumed by the organization (MWh)</th>
<th>Gross generation from renewable sources (MWh)</th>
<th>Generation from renewable sources that is consumed by the organization (MWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity</td>
<td>91,474</td>
<td>57,578</td>
<td>18,033</td>
<td>14,071</td>
</tr>
<tr>
<td>Heat</td>
<td>32,748,787</td>
<td>32,748,787</td>
<td>903,531</td>
<td>903,531</td>
</tr>
<tr>
<td>Steam</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cooling</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Scope</th>
<th>Verification/assurance status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope 1</td>
<td>Third-party verification or assurance process in place</td>
</tr>
<tr>
<td>Scope 2 (location-based or market-based)</td>
<td>Third-party verification or assurance process in place</td>
</tr>
<tr>
<td>Scope 3</td>
<td>Third-party verification or assurance process in place</td>
</tr>
</tbody>
</table>

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 2020 EN.pdf

Page/ section reference
Pages 384-385 and 387-389

Relevant standard
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 2020 EN.pdf](#)

**Page/section reference**
Pages 384-385 and 387-389

**Relevant standard**
ISAE3000

**Proportion of reported emissions verified (%)**
90

---

(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**
Triennial 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**
Same letter as last year (no update of data, triennial process)

**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?

<table>
<thead>
<tr>
<th>Disclosure module verification relates to</th>
<th>Data verified</th>
<th>Verification standard</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>C4. Targets and performance</td>
<td>Progress against emissions reduction target</td>
<td>Compagnie Nationale des Commissaires aux Comptes (CNCC)+ISAE3000</td>
<td>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 385.</td>
</tr>
</tbody>
</table>

1doc de référence 2020 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

<table>
<thead>
<tr>
<th></th>
<th>Percentage</th>
<th>Date</th>
<th>Allocations</th>
<th>Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of Scope 1 emissions covered by the ETS</td>
<td>0</td>
<td>January 1, 2020</td>
<td>15,342</td>
<td>81</td>
</tr>
<tr>
<td>% of Scope 2 emissions covered by the ETS</td>
<td>0.6</td>
<td>December 31, 2020</td>
<td>0</td>
<td>15,260</td>
</tr>
</tbody>
</table>

### California CaT

<table>
<thead>
<tr>
<th></th>
<th>Percentage</th>
<th>Date</th>
<th>Allocations</th>
<th>Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of Scope 1 emissions covered by the ETS</td>
<td>0.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of Scope 2 emissions covered by the ETS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Comment**

Facilities we own and operate
0.7

**Period start date**
January 1, 2020

**Period end date**
December 31, 2020

**Allowances allocated**
31,568

**Allowances purchased**
65,065

**Verified Scope 1 emissions in metric tons CO2e**
56,808

**Verified Scope 2 emissions in metric tons CO2e**
17,388

**Details of ownership**
Facilities we own and operate

**Comment**

---

**EU ETS**

% of Scope 1 emissions covered by the ETS
42.6

% of Scope 2 emissions covered by the ETS
0

**Period start date**
January 1, 2020

**Period end date**
December 31, 2020

**Allowances allocated**
3,284,336

**Allowances purchased**
0

**Verified Scope 1 emissions in metric tons CO2e**
3,373,455

**Verified Scope 2 emissions in metric tons CO2e**
0

**Details of ownership**
Facilities we own and operate

**Comment**
UK data are still reported under that EU ETS

**Korea ETS**

% of Scope 1 emissions covered by the ETS  
0.2

% of Scope 2 emissions covered by the ETS  
0.8

**Period start date**
January 1, 2020

**Period end date**
December 31, 2020

**Allowances allocated**
33,685

**Allowances purchased**
0

**Verified Scope 1 emissions in metric tons CO2e**
15,813

**Verified Scope 2 emissions in metric tons CO2e**
19,585

**Details of ownership**
Facilities we own and operate

**Québec CaT**

% of Scope 1 emissions covered by the ETS  
0.4

% of Scope 2 emissions covered by the ETS  
0

**Period start date**
January 1, 2020

**Period end date**
December 31, 2020

**Allowances allocated**
18,565
Allowances purchased
20,986

Verified Scope 1 emissions in metric tons CO2e
32,327

Verified Scope 2 emissions in metric tons CO2e
15

Details of ownership
Facilities we own and operate

Comment

Shanghai pilot ETS

% of Scope 1 emissions covered by the ETS
0.3

% of Scope 2 emissions covered by the ETS
3.1

Period start date
January 1, 2020

Period end date
December 31, 2020

Allowances allocated
103,024

Allowances purchased
0

Verified Scope 1 emissions in metric tons CO2e
22,182

Verified Scope 2 emissions in metric tons CO2e
78,121

Details of ownership
Facilities we own and operate

Comment

C11.1c

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

<table>
<thead>
<tr>
<th>Period start date</th>
<th>January 1, 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period end date</td>
<td>December 31, 2020</td>
</tr>
<tr>
<td>% of total Scope 1 emissions covered by tax</td>
<td>0.4</td>
</tr>
<tr>
<td>Total cost of tax paid</td>
<td>772,262</td>
</tr>
<tr>
<td>Comment</td>
<td></td>
</tr>
</tbody>
</table>

### France carbon tax

<table>
<thead>
<tr>
<th>Period start date</th>
<th>January 1, 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period end date</td>
<td>December 31, 2020</td>
</tr>
<tr>
<td>% of total Scope 1 emissions covered by tax</td>
<td>0.2</td>
</tr>
<tr>
<td>Total cost of tax paid</td>
<td>681,000</td>
</tr>
<tr>
<td>Comment</td>
<td></td>
</tr>
</tbody>
</table>

### Other carbon tax, please specify

<table>
<thead>
<tr>
<th>Period start date</th>
<th>January 1, 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period end date</td>
<td>December 31, 2020</td>
</tr>
<tr>
<td>% of total Scope 1 emissions covered by tax</td>
<td>0</td>
</tr>
<tr>
<td>Total cost of tax paid</td>
<td>66,096</td>
</tr>
<tr>
<td>Comment</td>
<td>Ontario carbon tax</td>
</tr>
</tbody>
</table>

### Other carbon tax, please specify
**C11.1d**

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

The carbon systems we are regulated or anticipate being regulated by are identified as having a potential substantive financial or strategic impact on our business. It is therefore key to us to have an appropriate strategy on that topic: ensuring the control of our emissions and prudent management of allocations are two principles that Saint-Gobain applies, as this is the example regarding the European ETS. Our strategy focuses on less emissions through: - ambitious 2030 validated SBT that we have set (-33% for 2030 vs 2017 for scope1+2) - envelope of 100,000,000€ every year over the 10 next years for CAPEX and R&D investments related to reduction of carbon emissions. - internal shadow carbon price for investment and R&D supporting the development of low carbon technologies even in places where carbon is not yet regulated.

As case study, we can highlight that our facilities being part of the EU-ETS have decreased their scope 1 emissions by 2% between 2017 and 2019 (last year without impact of 2020 pandemic) thanks to our reduction activities such as process optimization and waste heat recovery.

Allowances may be purchased in the future in case of remaining gap, this is continuously checked by the CO2 committee including Purchasing, Finance and Sustainable Development departements.

**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, updated to 50€/ton in February 2021, 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 70 countries where we operate.

Actual price(s) used (Currency /metric ton)
50

Variance of price(s) used
We updated the value to 50€/ton in February 2021 to consider carbon price evolution at worldwide level

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, particularly in the frame of our net zero carbon commitment.
The other internal price of carbon is much higher (100€ per ton, updated to 150€/ton in February 2021) 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 70 countries where we operate.

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

- 150

**Variance of price(s) used**

We updated the value to 150€/ton in February 2021 to consider carbon price evolution at worldwide level

**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**
  - Code of conduct featuring climate change KPIs

- **% of suppliers by number**
  - 20.7

- **% total procurement spend (direct and indirect)**
  - 78

- **% of supplier-related Scope 3 emissions as reported in C6.5**
Rationale for the coverage of your engagement

45,170 suppliers signed our Responsible Purchasing Charter. They represent 78% of our spent and 20.7% of the total number of suppliers (218,262). As rationale for coverage of our engagement, we can highlight that we first focus on percentage covered in spend rather than in number, i.e., where the biggest impact is. We track these data through the R-Net online platform, a private website entirely dedicated to the subject of responsible purchasing.

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 78% of our suppliers signed our Responsible Purchasing Charter vs. 77.2% in 2019. The increase in the number of suppliers represents a greater adherence to the principles of the 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 2020, 39,216 contacts of suppliers are registered on our online platform, 23,727 suppliers’ subsidiaries are covered by a fulfilled questionnaire. About 57% 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

Collect climate change and carbon information at least annually from suppliers

% of suppliers by number

44.2

% total procurement spend (direct and indirect)

65.4

% of supplier-related Scope 3 emissions as reported in C6.5
Rationale for the coverage of your engagement
The responsible purchase program (https://www.saint-gobain.com/en/ensure-ethical-business-practices) 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. 4,873 of them are considered as potentially risky regarding CSR and 65.4% of them in spent (44.2% by number) have been concerned by documentation reviews and audits.

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 2155 suppliers have been concerned by documentation reviews and audits by a third party: this represents an increase of 9.4% compared to 2019. The suppliers with unsatisfactory grades to those CSR evaluations have to work to improve their overall performance according to the detailed scorecard evaluation recommendation.
Linked to our 2050 net-zero carbon objective and 2030 SBT validated objective of -16% scope 3 emissions vs 2017, specific attention is paid to suppliers having the biggest impact on our scope 3 category 1 (purchase of goods/raw materials) and 4 (upstream transportation). Specific work is being done in the frame of our scope 3 assessment to have a better overview of the origin and carbon performance of our most impacting purchased raw materials with the final aim at reducing the impact through specific action plans. 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.

<table>
<thead>
<tr>
<th>Type of engagement</th>
<th>Education/information sharing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Details of engagement</td>
<td>Run an engagement campaign to educate customers about the climate change impacts of (using) your products, goods, and/or services</td>
</tr>
<tr>
<td>% of customers by number</td>
<td>80</td>
</tr>
</tbody>
</table>
% 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 80% of our sales. Craftsmen and installers are of particular relevance for educating whereas informing the full actors of the construction sector such as architects or professional schools is of particular interest for the Group. The use of our products in that context helps to avoid emissions, meaning that there is no link with scope 3 emissions. Indeed, the use of sold products linked to building insulation does not enter the category 11 of the scope 3 as per GHG protocol standard.

Impact of engagement, including measures of success

Some of the training courses delivered by local teams cover energy efficiency and reducing the environmental impact of buildings. Building distribution is particularly active in that area and plays a key role in supporting craftsmen, thereby facilitating the marketing and use of sustainable products. These services put in place by distribution accelerate the transition to more sustainable construction and reduce the carbon impact of buildings. In France, as company-specific example, POINT.P has developed a simulator called CapRenov+ to evaluate a project’s energy efficiency which is made available to our customers. As measure of success, we can highlight the evolution of simulations made along the years: 3,184 in 2017, 9,723 in 2018, 14,610 in 2019, 38,385 in 2020 and 42,395 for the first five months of 2021. In addition, 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 Renoprim+. 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 energies. 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 sales and marketing teams are involved with eight apprenticeship training centers (CFAs) for partnerships for training services or support for trainers specific to the establishment. A website dedicated to training 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. Finally, a web platform called Green Buildings Saint-Gobain enables the Group’s customers to evaluate the contribution of its products and solutions to obtaining LEED, BREEAM, WELL or international HQE certifications.

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?*

<table>
<thead>
<tr>
<th>Focus of legislation</th>
<th>Corporate position</th>
<th>Details of engagement</th>
<th>Proposed legislative solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy efficiency</td>
<td>Support</td>
<td>Saint Gobain has followed the launch of the EU Green Deal in 2019 and the preparation of specific policies and pieces of legislation that will be part of the EU “Fit for 55” package, such as the Renovation Wave, the review of the Energy Efficiency Directive (EED) and of the Energy Performance of Buildings Directive (EPBD). At European level, activities have 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 and our local advocacy networks. We have also engaged in supporting the implementation work for the current EU Clean Energy Package, notably regarding the Long Term Renovation Strategies, which were due by March 2020. In addition, Saint-Gobain has taken a pro-active role in the design and deployment of the EU recovery package, notably by contributing to ensure that renovation activities would be part of National Recovery and Resilience Plans.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>We have engaged on the Renovation Wave and its related legislative elements, such as the revision of the Energy Efficiency Directive (EED) and the Energy Performance of Buildings Directive (EPBD). On the EED, Saint-Gobain supports an ambitious binding target for energy efficiency by 2030, the integration of the Energy Efficiency First principle, renovation obligation for all public buildings, as well as a solid scheme to support the deployment of energy efficiency obligation schemes, as a major driver to the uptake of energy renovation measures. Regarding the EPBD, Saint-Gobain supports stronger national renovation strategies, with 2030 and 2040 milestones, to secure that the potential for energy savings and GHG reduction of existing buildings is effectively tapped. We also advocate for the phased introduction of Minimum Energy Performance Requirements (MEPS) in existing buildings, for improving Energy Performance Certificates (EPCs) and deploying Building Renovation Passports. All these measures should lead to the adequate consideration of the building envelope (incl. insulation, glazing).</td>
<td></td>
</tr>
<tr>
<td>Cap and trade</td>
<td>Support with minor exceptions</td>
<td>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.</td>
<td>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 the “at least – 55%” 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. We are supportive of the main principles of a Carbon Border Adjustment Mechanism.</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Trade association</th>
<th>Is your position on climate change consistent with theirs?</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFEP</td>
<td>Consistent</td>
</tr>
</tbody>
</table>
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. In 2020, Saint-Gobain took part in a number of AFEP work streams, notably on the EU taxonomy and on the positioning on the EU “Fit for 55 package”.

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 2020, we have supported the WGBC work stream on embracing a whole life cycle approach in buildings policies, notably via taking an active “champion” role in their Building Life Campaign. We are strongly supportive of the project Level(s), the voluntary European framework for sustainable construction published in 2020, and preparing for the evolution of building policies in the areas of decarbonisation, carbon, circularity, or health & well-being.
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. Further work is being done since 2018 to support the recommendations from the ZEN2050 study.

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, expresses a unique consolidated voice of industrial actors 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, notably via the Renovate Europe Campaign.

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 2020, EuroACE has been very active in ensuring the adequate recognition of buildings’ efficiency in the EU Green Deal by the new European Commission and in the recovery plans.

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 and circularity 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, working for positive regulations and standards in all fields covered by the association. Saint-Gobain holds the Chairmanship of Eurima as well as Convenorship of the Technical Committee and of the Sustainable Construction Committee, as well as the Vice-Convenorship of the Energy Efficiency Committee. In 2020, Eurima has been particularly active on topics such as the Renovation Wave, the EU “Fit For 55” package, the EU Circular Economy Action Plan, or the EU Taxonomy.

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 buildings 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. Saint-Gobain was notably involved in the regional work linked to decarbonisation roadmaps, which were 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, to industrial strategy 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 the European federation of national associations of gypsum products manufacturers. Eurogypsum promotes a sustainable built environment for Europe thanks to the environmental, social and economic credentials of gypsum products and solutions. Eurogypsum advocates for circularity in the construction sector notably via encouraging better collaboration between actors of the value chain and the development of replicable circular economy models.

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, sustainability and circularity. Saint-Gobain chairs the Sustainable Construction and the Circular Economy WGs and the CSO chairs Eurogypsum since May 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 has 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 TCFD Construction and Building Materials Forum or to the Energy Solutions which was still in progress in 2020.

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, part of the advisory group, and take part to working groups such as the one related to carbon pricing of the construction sector.

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 in April 2020, 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 team in charge of sustainable business development (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 business development team defines and coordinates the Group’s strategy for influencing sustainable 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 team and network work towards the maximal reduction of environmental impacts, and the corporate EHS team states mid-term and long-term targets for emissions reduction and energy consumption. Such orientations are 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 Business Development 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 2030, 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 2020 EN.pdf

**Page/Section reference**
Pages 92-102

**Content elements**
- Governance
- Strategy
- Risks & opportunities
- Emissions figures
- Emission targets
- Other metrics

**Comment**
Universal Registration Document 2020

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**Publication**
In voluntary communications

**Status**
Complete

**Attach the document**

- press release roadmaps2.pdf
- press release roadmaps.pdf

**Page/Section reference**
full documents

**Content elements**
- Strategy
- Risks & opportunities
- Emissions figures
- Emission targets
- Other metrics

**Comment**
Press release regarding our carbon roadmaps plus the related presentation to investors
Publication
In voluntary communications

Status
Complete

Attach the document

press release PPA.pdf

Page/Section reference
full document

Content elements
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment
Press release regarding our Power Purchase Agreement in the US

Publication
In voluntary communications

Status
Complete

Attach the document

press release plasterboard.pdf

Page/Section reference
Full document

Content elements
Strategy
Risks & opportunities
Emissions figures
Emission targets

Comment
Press release regarding our first net-zero carbon plasterboard plant in Norway

Publication
In voluntary communications
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.

<table>
<thead>
<tr>
<th>Job title</th>
<th>Corresponding job category</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Senior Vice President in charge of Human Resources and Member of the Executive Board, having the overall responsibility of the Sustainable Development department</td>
<td>Board/Executive board</td>
</tr>
</tbody>
</table>