

## C0. Introduction

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### C0.1

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

##### Company Profile

As the world's global leader in building solutions, Holcim is reinventing how the world builds to make it greener and smarter for all. On its way to becoming a net zero company, Holcim offers global solutions such as ECOPact, enabling carbon-neutral construction and Firestone roofing systems for higher energy-efficiency in buildings. With its circular business model, the company is a global leader in recycling waste as a source of energy and raw materials through products like Susteno, its leading circular cement. Innovation and digitalization are at the core of the company's strategy, with more than half of its R&D projects dedicated to greener solutions. Holcim's 70,000 employees are committed to improving quality of life across more than 70 markets through its four business segments: Cement, Ready-Mix Concrete, Aggregates and Solutions & Products.

Cement is manufactured through a large-scale, capital-and-energy-intensive process. At the core of the production process is a rotary kiln, in which limestone and clay are heated to approximately 1,450 degrees Celsius. The semi-finished product, clinker, is created by sintering. In the cement mill, gypsum is added to the clinker and the mixture is ground to a fine powder – traditional Portland cement. Other high-grade materials such as granulated blast furnace slag, fly ash, pozzolan, and limestone can be added in order to modify the properties of the cement for special uses or specific application.

Aggregates include crushed stone, gravel, and sand. They can also be recycled from concrete wastes. They are typically produced by blasting hard rock from quarries and then extracting it and crushing it. Aggregate production also involves the extraction of sand and gravel from both land and underwater, which generally requires less crushing. Aggregates are used as raw materials for concrete, masonry, and asphalt and as base materials for roads, landfills, and buildings. As such, they are a key component of construction projects worldwide. There is a very broad range of customers for aggregates. Major customers include concrete and asphalt producers, manufacturers of prefabricated concrete products, and construction and public works contractors of all sizes.

Concrete is the world's second most consumed good by volume after water. One cubic meter consists of approximately 280 kilograms of cement, 175 liters of water, and two tonnes of aggregates. Ready-mix concrete is one of the largest markets for the cement and aggregates industries.

##### Sustainability Strategy

The global megatrends of population growth, urbanization and rising living standards offer significant business and growth opportunities in our industry. The global building materials market is worth CHF 2.5 trillion annually and is continually growing. At the same time, these trends are challenging our planet through increased carbon emissions, depletion of natural resources and an increase of waste. As countries develop, solutions for sustainable prosperity are needed.

Buildings and infrastructure have come into focus in this challenge. While on one side they form the very basis for societal development, they also account for 30 to 40 percent of worldwide CO2 emissions, with around 5 percent occurring during the construction phase. Also, they consume substantial amounts of raw materials and generate significant volumes of waste. Society thus urgently needs to find solutions for a more sustainable built environment.

At Holcim we are committed to contribute our share along the value chain. Our commitment to sustainability leadership rests on four strategic pillars: **Climate and Energy, Circular Economy, Nature and People**

We are leading the transition towards more low-carbon construction by introducing more low-carbon products and solutions to our customers worldwide and by being at the forefront of innovation in building materials.

Our business also puts us in a leading position to address society's waste problem and to promote a circular economy. As building materials draw on natural resources, protecting nature is also a strategic priority. And finally, as our business is fundamentally local, we make sure to create value for the communities in which we live and work.

In the center of all our activities to address the four drivers is Innovation. We will continue to develop innovative products and solutions for a built environment that meet these criteria, satisfying a continuously growing market demand for sustainable solutions.

### C0.2

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

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	January 1 2020	December 31 2020	Yes	1 year

**C0.3**

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

Algeria  
Argentina  
Australia  
Austria  
Azerbaijan  
Bangladesh  
Belgium  
Brazil  
Bulgaria  
Canada  
China  
Colombia  
Costa Rica  
Croatia  
Czechia  
Ecuador  
Egypt  
El Salvador  
France  
Germany  
Greece  
Hungary  
India  
Iraq  
Italy  
Jordan  
Kenya  
Lebanon  
Madagascar  
Malawi  
Mexico  
New Zealand  
Nicaragua  
Nigeria  
Philippines  
Poland  
Réunion  
Romania  
Russian Federation  
Serbia  
South Africa  
Spain  
Switzerland  
Uganda  
United Kingdom of Great Britain and Northern Ireland  
United Republic of Tanzania  
United States of America  
Zambia  
Zimbabwe

**C0.4**

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

CHF

**C0.5**

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**(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.**

Financial control

C-CE0.7

**(C-CE0.7) Which part of the concrete value chain does your organization operate in?**

- Limestone quarrying
- Clinker production
- Portland cement manufacturing
- Blended cement
- Belite cements
- Alternative 'low CO2' cementitious materials production
- Aggregates production
- Concrete production
- Concrete pavement / asphalt / tarmac

C1. Governance

C1.1

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

Yes

C1.1a

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

Position of individual(s)	Please explain
Board-level committee	The Holcim Board of Directors consists of 12 members, all of whom are independent, were not previously members of the Holcim management, and have no important business connections with Holcim. Holcim keeps the functions of Chairman of the Board of Directors and Group CEO separate. The Board of Directors has a dedicated Committee with a specific remit on Sustainability and Health and Safety (HSSC). The committee consists of five Board members and meets at least quarterly. This committee's mission is to provide advice on strategic direction and on the development and promotion of climate related topics. The HSSC's key climate related responsibilities: - informs, reviews and approves the Holcim's climate strategy framework - is briefed on a quarterly basis on key climate related aspects as well as on performance against key indicators - the full Board approves the consolidated Group mid term plan, including the budget. They also approve major capital expenditures, acquisitions and or divestments (exceeding CHF 400 million). The Board is also regularly informed about important transactions under the authority of the Executive Committee. This includes climate related expenditures. In 2020, the HSSC approved the decision to invest CHF 100m investment in India in waste heat recovery systems to accelerate its net zero journey. This investment across six sites will be completed in the next two years, doubling Holcim's waste heat recovery systems, which use thermal heat to produce decarbonized electricity.
Other C-Suite Officer	The Holcim Executive Committee consists of 10 members. Holcim aims to achieve a balanced relationship between management and control by keeping the functions of Chairman of the Board of Directors and CEO separate. The Holcim Executive Committee is ultimately responsible for the Holcim Climate and Energy strategy execution. On a quarterly basis, the Executive Committee is briefed on key climate related aspects as well as on performance against key climate performance indicators. The Group Executive Committee's key climate related responsibilities: - informs and reviews the Holcim's climate strategy framework and ambition review process - is briefed on a quarterly basis on key climate related aspects as well as on performance against key indicators - approves climate-related capital expenditures, acquisitions and /or divestitures. In 2020, the Executive Committee approved the decision to invest CHF 100m investment in India in waste heat recovery systems to accelerate its net zero journey. This investment across six sites will be completed in the next two years, doubling Holcim's waste heat recovery systems, which use thermal heat to produce decarbonized electricity.

C1.1b

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

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – all meetings	<ul style="list-style-type: none"> <li>Reviewing and guiding strategy</li> <li>Reviewing and guiding major plans of action</li> <li>Reviewing and guiding risk management policies</li> <li>Reviewing and guiding annual budgets</li> <li>Reviewing and guiding business plans</li> <li>Setting performance objectives</li> <li>Monitoring implementation and performance of objectives</li> <li>Overseeing major capital expenditures, acquisitions and divestitures</li> <li>Monitoring and overseeing progress against goals and targets for addressing climate-related issues</li> </ul>	<Not Applicable>	The Board of Directors has a dedicated Committee with a specific remit on Sustainability and Health and Safety (HSSC). The committee consists of five Board members and meets at least quarterly. This committee's mission is to provide advice on strategic direction and the development and promotion of safety and sustainability, explicitly including Climate and Energy related topics. The entire Board of Directors is included in the Business Risk Management (BRM) process and are thus regularly updated on climate related risks and opportunities, as well as potential scenarios in carbon price regulation systems such as EU-ETS. The Holcim process for approval of major climate-related capital expenditures, acquisitions and /or divestitures, includes climate and other environmental and societal considerations in the assessment and ultimately requires the approval of the Board. In 2020, the Health, Safety and Sustainability Committee (HSSC) members have: - informed, reviewed and approved the Holcim's climate strategy framework and ambition review process - being briefed on a quarterly basis on key climate related aspects as well as on performance against key indicators - the full Board approves the consolidated Group mid term plan, including the budget. They also approve major capital expenditures, acquisitions and or divestments (exceeding CHF 400 million) The Board is also regularly informed about important transactions under the authority of the Executive Committee. This includes climate and other environmental and societal considerations.

**C1.2**

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

Name of the position(s) and/or committee(s)	Reporting line	Responsibility	Coverage of responsibility	Frequency of reporting to the board on climate-related issues
Other C-Suite Officer, please specify (Health and Safety and Sustainability Board Committee)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Chief Executive Officer (CEO)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Chief Sustainability Officer (CSO)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly
Chief Risks Officer (CRO)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Quarterly
Public affairs manager	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Not reported to the board

**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).**

**1 - Health and Safety and Sustainability Board Committee (HSSC):**

i). ii) Holcim Board of Directors is the highest management-level Committee with responsibility for climate-related issues and has a dedicated Committee with a specific remit on Sustainability and Health and Safety (HSSC).

iii) Its mission is to provide advice on strategic direction and the development and promotion of safety and sustainability topics, including climate and energy. It consists of five Board members and meets at least quarterly. In 2020, the HSSC has been working closely with the sustainability team reviewing Holcim climate strategy framework and receiving regular updates on key climate related aspects as well as on performance against key indicators. HSSC's key climate related responsibilities:

- informs, reviews and approves the Holcim's climate strategy framework and ambition review process
- is briefed on a quarterly basis on key climate related aspects as well as on performance against key indicators
- the full Board approves the consolidated Group mid term plan, including the budget. They also approve major capital expenditures, acquisitions and or divestments (exceeding CHF 400 million) The Board is also regularly informed about important transactions under the authority of the Executive Committee. This includes climate and other environmental and societal considerations

## 2 - Chief Executive Officer (CEO):

i) The Group CEO reports to the Holcim Board of Directors, ii) He is the ultimate responsible for operational management of the company, including corporate climate strategy proposals and executing respective Boards resolutions.

iii) The Group CEO oversees the operational performance of the company against climate and energy targets. Their key climate related responsibilities:

- informs and reviews the Holcim's climate strategy framework and ambition review process
- is briefed on a quarterly basis on key climate related aspects as well as on performance against key indicators
- approves climate-related capital expenditures, acquisitions and /or divestitures, includes climate and other environmental and societal considerations

## 3 - Chief Sustainability and Innovation Officer (CSIO):

i) Holcim Group's CSIO is a member of the Executive Committee and reports directly to the Group CEO. ii) She heads the Group Sustainability team, a cross-discipline department which is responsible for overseeing the deployment of the Holcim Sustainability Ambition including its Net-Zero Pledge.

iii) The CSIO is responsible for continuous reviews and guides climate-related items that could influence business strategy. In addition, she closely monitors any developments concerning climate-related issues by engaging with investors and analysts, NGOs, policy makers and trade associations. Her key climate related responsibilities:

- develops the Holcim's climate strategy framework and ambition review process
- briefs on a quarterly basis the Holcim Board of Directors and Executive Committee on key climate related aspects as well as on performance against key indicators
- reviews the climate-related capital impact of expenditures, acquisitions and /or divestitures
- represents Holcim Group in a variety of climate related sectoral associations, such as the GCCA and WBCSD

## 4 - Head of Group Risk Management:

i) Holcim's Head of Group Risk Management is a member of the leadership team and reports directly to the Group CFO. He has direct access to the Audit Committee

ii) The Head of Group Risk Management oversees the Group Holcim Enterprise Risk Management process, consolidates business risks and reports any relevant water risks to the Executive Committee and the Audit Committee of the Board.

iii) His key climate related responsibilities:

- develops and manages the Holcim Enterprise Risk Management process, ensuring the inclusion of all sustainability topics including climate and energy related aspects
- ensures proper implementation of the Holcim Enterprise Risk Management process throughout the Group
- briefs on a quarterly basis the Audit Committee on climate related risks and opportunities if necessary or if there were indications of high climate-related risk. A meeting is specifically dedicated to the Group Risk Report where sustainability and climate-related risks are presented and discussed

## 5 - Public Affairs Head:

i) The Head of Public Affairs reports directly to the Group Head of Corporate Communications and ii) is responsible for the coordination of advocacy actions within Holcim and holds direct and specific responsibility for climate change related issues. As such, he ensures that the Group's long-term interests – in line with broader societal interests – are taken into account by public authorities. iii) He represents Holcim Group in a variety of climate related sectoral associations such as Cembureau and GCCA and monitors the evolving legislative environment on carbon pricing mechanisms in the countries where we operate.

### C1.3

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

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	In recognition of the importance of mitigating the company's impact on the environment, the Nomination, Compensation and Governance Committee of the Board decided to introduce a sustainability objective for the performance shares. The sustainability objective will account for one-third of the performance share award and will encompass three pillars of the sustainability strategy: • Climate and energy: reduction of CO2 emissions with a 50% weight • Circular economy: increased re-use of waste derived resources with a 25% weight • Environment: reduction of freshwater withdrawal with a 25% weight The specific targets will be determined based on the mid-term (2022) objectives communicated in the context of the sustainability strategy and reporting.

**C1.3a**

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

Entitled to incentive	Type of incentive	Activity incentivized	Comment
Corporate executive team	Monetary reward	Emissions reduction target	The Holcim Group CEO and Executive Committee compensation is designed to reinforce the Holcim strategy. Its structure balances short-term and long-term performance, combines absolute and relative performance, and financial and non-financial metrics in measuring performance, and delivers compensation through a mix of cash and company shares. The compensation for members of the Executive Committee includes the following elements: - Fixed base salary - Pensions and benefits - Variable compensation: annual and long-term incentives In recognition of the importance of mitigating the company's impact on the environment, the Nomination, Compensation and Governance Committee of the Board decided to introduce a sustainability objective for the performance shares. The sustainability objective accounts for one-third of the performance share award and will encompass three pillars of the sustainability strategy: • Climate and energy: reduction of CO2 emissions with a 50% weight • Circular economy: increased re-use of waste derived resources with a 25% weight • Environment: reduction of freshwater withdrawal with a 25% weight The specific targets will be determined based on the mid-term (2022) objectives communicated in the context of the sustainability strategy and reporting. In addition, the performance share plan is designed to provide further forward-looking incentives for sustained Group performance. Please note that this is not only the case for the CEO but also for some other Executive Committee members. For instance, in Europe the existing carbon cap and trade mechanism is impacting the region's performance with all climate related optimization activities being key to maintain EBITDA and revenue growth - both directly linked to compensation.
Business unit manager	Monetary reward	Efficiency target	Cement plant managers receive variable compensation which is linked to a yearly climate-related sustainability assessment done jointly between Cement Excellence Manufacturing and Sustainable Development. Two criteria and reference values are relevant for this question: 1 ) Specific Thermal and Electrical Energy consumption 2) Specific net CO2 emissions (kg CO2/t of cementitious) They could be categorized under "emissions reductions", "energy reduction" and "efficiency". In addition, business unit managers who are part of the top 200 leaders are also linked to a sustainability objective for the performance shares Long Term Incentive.

**C2. Risks and opportunities**

**C2.1**

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

Yes

**C2.1a**

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

	From (years)	To (years)	Comment
Short-term	0	3	Our horizon for the risk management cycle is a 3 year time frame in alignment with the mid-term plan (MTP) as we define the risk as an uncertainty on the achievement of company objectives.
Medium-term	3	10	We extend the framework to 10 years in order to capture potential disruptions regarding sustainability as our targets aims at achieve decrease in greenhouse emissions by 2030.
Long-term	10	40	In alignment with the International Energy Agency Low-carbon Technology Road Transition for the Cement Industry, our vision expands until 2050 to explore all opportunities of the scale-up phase of innovative technologies.

**C2.1b**

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

The Holcim risk management process is structured around several coordinated approaches conducted within the Group and it is subject to continuous improvement.

It includes a bottom-up and top-down risk assessments which cover all kinds of risks: strategic, environmental, sustainability, climate change, market, industrial, operational, financial, legal, compliance and reputational risks, whether under our control or not.

These assessments are used as a basis for the Group risk map, which is updated every year and submitted and reviewed by the Group's Executive Committee and the Audit Committee.

The bottom-up assessment is performed at the country level and includes several stages: i) Risk identification and assessment, ii) Description of current mitigation or action plans, iii) Monitoring and reporting.

The top-down assessment at Group level is performed through interviews with Heads of functions, Board of Directors and Executive Committee members and External Auditors.

At Group level, the top-down identification includes specific climate related focus areas:

- Reputation: reputational risks related to external references or stigmatization of the sector and engagement with the relevant stakeholders is being managed between the Group Sustainability Stakeholder and Group Media
- Environmental policies and Regulations: Relevant risks related to policies and regulations such as evolution of carbon pricing schemes are analysed and monitored by the Group Sustainable Development teams and Public Affairs Team
- Technology: The Holcim Cement Manufacturing Excellence Team oversees the cement technology related risks and opportunities, such as carbon capture technologies or optimization of existing processes and technologies.
- Product, services and market related: The impact of climate change risks and opportunities on Holcim's business is assessed by all stakeholders affected somehow by such risks or opportunities, both on the supply and the commercial side.

At country level management assesses and evaluates the potential impact and likelihood of climate related risks that could have a material adverse effect on the current or future operation of the business (including physical impact of climate change).

We define substantive impact as all major adverse events or missed opportunities that may impact our ability to achieve our financial and strategic objectives. We consider strategic objectives, **our financial objectives as well as our sustainability commitments and operational targets**, among which climate is a key element. **The risk horizon where climate risks are assessed** includes both the short- to medium-term, typically a 3 year period of time as for any other business risks and the medium- to long term (10 years) in alignment with our sustainability targets and CO2 roadmap (2030).

- Risk assessment at the country level involves all business areas. Involvement of the country ExCo and country CEO is required before submission (to Group)
- The objective is to make sure that all potential areas of concerns are included in the risk map, and also to ensure that the risk assessment follows a forward-looking approach integrating the potential risks arising from the strategic initiatives / projects that might occur in the next 3 years
- We collect risk assessments from the countries, then all risks are consolidated and aggregated assessments adjusted in order to take into consideration insights from stakeholders at Group level. So both local and global impacts are considered.

### Scope of value chain

- In the assessments we considered both direct operations and supply chain (especially as regards to business interruption, supplier qualification, compliance, availability of raw materials)

### Definition of likelihood

We define the likelihood as the probability of occurrence of climate related events in the next 3 years.

- Virtually certain > 90%
- Very likely between 75% and 90%
- Likely between 60% and 75%
- More likely than not between 45% and 60%
- About as likely as not between 30% and 45%
- Unlikely between 15% and 30%
- Very unlikely between 5% and 15%
- Exceptionally unlikely <5%

### Definition of significance

We define significance (substantive financial impact) based on:

a) The overall financial impact of the respective risk against the yearly average of the next 3 years of Group's operating EBIT.

- Impacts below 5% of operating EBIT are considered as Low
- Impacts between 5-10% of operating EBIT are considered as Medium
- **Impacts between 10-15% of operating EBIT are considered as High**
- **Impacts above 15% of operating EBIT are considered as Very High**

An impact would be considered as substantive for the Group as soon as it is High or Very high.

Aligned with our Risk Management process we consider risks below 10% of EBIT to be not substantive

b) Also considered is the impact on the Group's or local operations reputation, including impairment of reputation with investors, rating agencies, regulators and external stakeholders such as NGO or media.

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**(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**

Process and frequency: Holcim's Enterprise Risk Management (ERM) aims to systematically address and mitigate major risks including environmental, energy and climate change related risks. The Group's risk profile is assessed both from top down and bottom up perspectives. These assessments are used as a basis for the Group risk map, which is updated every year and submitted to and analyzed by the Executive Committee. The bottom-up assessment is performed at the country level. Entities have to use a shared risk library in order to ensure that all aspects of transition and physical risks have been addressed by the countries as per the TCFD risk framework. Countries assess climate-related risks and opportunities that have the potential to impact our financial and non-financial targets over a short- (0-3 years), medium- (3-10 years) time horizon. Long term risks (10-40 years) are considered in our scenario analysis at Group level. At the top-down level, interviews with top management, function heads and experts, complement the aggregated country assessments. As part of the top-down risk assessments, the Group Risk team captures additional insights regarding the climate-related risks with regards to Group's Reputation, Policies & regulations, Technology, Product, services and market-related expectations and physical impacts of climate change. Same assessment methodology and scales than for the bottom-up are used. Risk and opportunities are assessed according to their likelihood of occurring and their potential magnitude of impact and potential financial impact and presented on a materiality matrix. Any risk that is considered to have a 'Likely' chance of occurring, with a 'High' potential magnitude and that exceeds our threshold for substantive financial or strategic impact of impacting at least 10% of operating EBIT is determined as having a substantive financial or strategic impact on the business. Boundaries: Our risk universe takes into consideration our direct operations, upstream supply chain and downstream supply chain. Thus, the business assesses the risks arising from the failure of processes whose objectives are to our direct operations, secure our upstream and downstream supply chain from an operational, compliance, reputational or sustainability perspective. Risk mitigation: Respective actions and/or controls are defined by the management. Risk transfer through insurance solutions an integral part of risk. In case substantive risks and/or opportunities related to climate change are identified, specific actions to mitigate risks or capture identified opportunities are proposed to the HSSC and Executive Committee. Monitor & Reporting: Regular progress on the actions/controls are followed up by risk leads and reported to the Group through the Holcim Risk Management tool. At least twice a year, progress on mitigating actions, controls and overall risk exposure is reported to the Group. On a quarterly basis, climate related risks and opportunities are discussed with the Group Board of Directors Health and HSSC. Verification & Remediation: Group Internal Audit performs independent assessments of the effectiveness of mitigating actions and controls and on the risk assessment process. The annual audit plan approved by the Audit Committee takes into account the various analyses described above. The results presented to the Group Executive Committee and Audit Committee can lead to more in-depth analyses and contributes to the continuous risk identification process. Case study Transition risk/opportunity: Our Risk Management process has been fundamental to effectively manage transition risks. During the interviews performed at the Group level (top-down approach) the major evolutions of the European regulatory framework (ETS phase IV) were anticipated 2 years in advance, enabling our Group to establish the decarbonization taskforce and design a specific short term response plan established to support the transition to the phase 4 of the new European Trading System which has been enforced in 2021. The new EU-ETS phase brings with it risks of stricter CO2 credit allocation systems, increased fossil fuel prices and scarcity of alternative mineral components. This risk was assessed according to our materiality framework and was determined as being "Virtually Certain" with a "High" potential magnitude over the medium- and long-term. The assessment found that it exceeded our threshold of substantive financial impact, as potential impacts could affect more than 10% of EBIT. The boundary of this risk was established as affecting our direct operations, upstream and downstream supply chain. To mitigate against this risk, a specific European decarbonization strategy was presented to the HSSC and Executive Committee which included a short-term response to improve our CO2 and energy performance and conduct a scenario analysis to evaluate impacts on profitability. CHF 160 million are invested until 2022 into 80 emissions reduction projects. Progress on these is monitored and reported to the Group regularly. Case study Physical risk/opportunity: As part of our bottom-up risk assessment, in the Spring of 2019 the Holcim team in the US identified and reported the increased risk of flooding down the Mississippi River that had the potential to impact our operations. Heavy rainfall was expected to lead the banks of the Mississippi River to burst, disrupting our operations as Holcim uses this route to transport Cement and Limestone filler to cities such as St. Louis and Memphis. This risk was therefore identified as having a 'Very Likely' chance of occurring with a financial impact (worst case scenario) of 5% on our EBIT in this region. On the inbound side, the entity had about 3 million USD in additional expense from having to truck in raw materials and fuels instead of the more efficient and cost-effective modes of barge and/or rail. On the outbound side, the entity incurred an additional 6 million USD of unplanned spend in network shifts directly due to the flood and 11 million USD due to increased shipping costs during the flooding. The rest of the losses resulted from business interruption and revenue losses. To mitigate this risk, our US division's logistics department implemented a response plan which consisted of changing the means of transportation and production sourcing, utilizing temporary seasonal floating storage and short term rail track. In 2020 and 2021, 1.4 million USD will be spent through offsite railcar storage and filling up a dome in St. Paul in the winter. This decision would provide about a 2 million USD benefit in case of another flood event. Should this risk reoccur with the same magnitude, this would represent less than 2% of our Group EBIT which is not considered to be a substantive impact to our company.

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**C2.2a**

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

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Holcim operates in countries where carbon pricing mechanisms are already in place, in the form of both cap and trade systems and carbon taxes. An example of the risk type - The risk of carbon prices to increase in the short term under the current regulation is therefore considered in our risk management process and used to inform our short term strategy and yearly financial planning on a regular basis. In Europe under the transition from phase 3 to phase 4 of the EU-ETS, the CO2 price has increased from the range of 20 € / ton CO2 to more than 50€ / ton in the first part of 2021. This is being closely monitored and respective financial impacts assessed on a monthly basis for a number of years. Euro's EU-ETS carbon tax of 50 € per ton is a potential risk to Holcim where we could see an increase in direct costs (including associated fuel). How it is included in climate-related risk assessments - Group level, the Public Affairs Department engages with policy representatives and monitors the evolving legislative environment on carbon pricing mechanisms. The Group Finance and Sustainability teams support the process with the development of different scenarios analysis to quantify the potential impacts. This work is used to inform regional and country existing business plans and short term strategies when significant risks are identified. At country level, Country Public Affairs Managers engage with local and regional policy representatives and associations. This informs representative groups of CEOs and functional managers, who regularly meet and monitor latest regulatory developments and activities influencing policy, that could have a material adverse effect on the current or future operation of the business. Updates on current carbon pricing regulations are regularly presented to our main governing bodies, mainly the Country and Group Executive Committees. The results of this work are also included in our Group Risk Report.
Emerging regulation	Relevant, always included	Holcim operates in countries where existing carbon pricing mechanisms are evolving, or new ones are being considered / being implemented. The introduction of new or changes to existing carbon pricing regulations could have a significant impact on our operations as a large carbon emitter, leading to additional operational and distribution costs, and reduced profitability of our business. An example of the risk type - The risk of carbon prices to be included in the short and mid term is therefore considered in our risk management process and used to inform our short and mid term strategy and yearly financial planning on a regular basis. A tangible example is the European Decarbonization Roadmap, an action plan aimed to manage the potential impact of the phase 4 under the EU-ETS, after having assessed a range of plausible scenarios of regulation developments. Potential legislation such as government mandated GHG reporting is a potential risk on Holcim where we could see a negative perception and increased fees if Holcim does not accurately and frequently report on Holcim's emissions. How it is included in climate-related risk assessments - At Group level, the Public Affairs Department monitors the evolving legislative environment on carbon pricing mechanisms in the countries where we operate. This is done in collaboration with Country Public Affairs Managers, who in their respective countries, monitor regulatory developments and activities influencing policy, that could have a material adverse effect on the future operation of the business. Local and Group Finance and Sustainability teams support the process with the development of different scenarios analysis to quantify the potential impacts. This work is used to inform regional and country business plans as well as our short and mid term strategies when significant risks are identified. Updates on emerging carbon pricing regulations are regularly presented to our main governing bodies, mainly the Country and Group Executive Committees.
Technology	Relevant, always included	Innovation is a key pillar in our climate strategy. Risks and opportunities associated with technological innovations or improvements that help us to reduce our CO2 emissions and energy consumption are an integral part of our risk management process. An example of the risk type - An example of the risks being considered is the risk of the cost of carbon capture technology being significantly higher than existing carbon pricing mechanisms in place and the lack of integrated deployment of Carbon Capture and required supply chain ecosystems (transportation, sequestration, etc.), preventing a successful and economically viable implementation of carbon capture technologies. Holcim could face the risk of increased operating costs if we do not assess and incorporate lower-carbon, energy efficient processes into our operations. How it is included in climate-related risk assessments - Their identification and assessment is centrally coordinated by our Group Cement Manufacturing Excellence team based in Holderbank and our R&D Center in Lyon, supported by regional and country teams. Technology related risks and opportunities have already been identified and respective mitigation measures and action plans have been considered in our Group-wide and Regional initiatives. These initiatives focus among others, on increasing the use of alternative fuels, the production of low carbon binders and the innovation of CO2 neutral technologies such as carbon capture and storage. With regards to increasing the use of alternative fuels and the production of low carbon binders, the availability of both levers has to be managed at regional and business unit level. This needs to be managed with the support of both, our Group Cement Manufacturing Excellence team based in Holderbank, our R&D Center in Lyon and our Group Strategy department. Risks related to carbon capture and storage technologies are directly assessed and managed by our Group Cement Manufacturing Excellence team based in Holderbank and our R&D Center in Lyon. As result of this work, in 2018 Holcim has launched a Group-wide initiative to future-proof its sites summarized under the flagship ambition, "The Plants of Tomorrow", which aims to create vertically integrated, intelligent and interconnected digital plants that harness disruptive technologies
Legal	Relevant, always included	Climate change related litigation risk is an emerging phenomenon, with cases being brought before the courts in a limited number of jurisdictions in which we operate. An example of the risk type - As a large carbon emitter, the risk of Holcim being increasingly targeted, and potentially causing reputational damage and increased public scrutiny in this regard. This calls for management attention to mitigate possible risks. An example is the case in the Philippines where in 2017, the Human Rights Commission investigated whether the collective contribution to global warming by 47 coal, cement, oil and gas companies has violated Filipinos' basic rights to life, water, food, sanitation, adequate housing and self determination. Holcim subsidiaries were subject to investigation. Failure to account for regulatory and litigation risks that could potentially result in fines and non-monetary sanctions on Holcim if we do not properly consider and address legal operating requirements. How it is included in climate-related risk assessments - Holcim maintains a comprehensive risk-based compliance program with dedicated resources at local, regional and Group level with central steering under the Group Legal and Compliance Team. Group Legal manages all competition investigations, information requests and enforcement cases through a central team of legal specialists. Group Legal also tracks all Group-relevant litigation cases, and provides support to the relevant operating companies in defense and dispute resolution.
Market	Relevant, always included	Evolution of market demands are considered in our risk process. As the carbon debate intensifies, our main products, cement and concrete could be challenged as the building material of first choice because of perceived high embodied CO2. An example of the risk type - An example being considered is the risk of changing building materials preferences by our customers. In France for instance, timber is increasingly being favored against concrete in public tenders. There is a potential risk of decreased in market share if we do not continually progress towards products and services that customers are shifting towards. How it is included in climate-related risk assessments - At Group level, our R&D center is responsible for development of new low carbon solutions, in response to Global and country specific market developments. At country level, Country Sustainability and Public Affairs Managers liaise regularly with respective Sales' teams to monitor trends in demands of these products. Holcim has an important range of products and brands which can be considered as low carbon products: ECOPEX®, ECOPlanet®, Ductal®, Agilia®, Thermania 6B®, Aether®, and other solutions to provide the best solutions to its customers, and developing new products with higher CO2 savings potential. In addition, our Group Sustainability Team engages regularly with relevant stakeholders to ensure sufficient transparency is provided on the environmental, social and economic responsibility of concrete, cement and aggregate companies' operations and their supply chains. Holcim is a founder member of the Concrete Sustainability Council (CSC) designed to provide the required transparency through a certification system. The CSC certification system consists of an operational manual and assessment criteria with guidance on their application. A typical certification process is applicable to all sizes of concrete companies, currently comprising three levels: bronze, silver and gold. Aggregate and cement suppliers can achieve a CSC supplier certificate to support their concrete clients with their CSC assessments
Reputation	Relevant, always included	An example of the risk type - The risk of being perceived as a large carbon emitter could reduce our attractiveness to stakeholders such as customers, investors, and potential employees. Additionally, not meeting our CO2 reduction targets can have a negative impact on reputation, as stakeholder engagement and communication programs have been put in place. A recent example can be found in the Guardian publication where the concrete industry without clear distinction between respective players was subject to a series of articles pointing to concrete's responsibility in climate change. Such campaigns could lead to a negative perception of our products by our final customers, thus influencing building material preferences. Link: <a href="https://www.theguardian.com/cities/series/guardian-concrete-week">https://www.theguardian.com/cities/series/guardian-concrete-week</a> Risks from failure to cater towards customers that demand energy-efficient products or services could impact Holcim where we could potentially lose market share if we do not implement an energy efficient process into our operations. How it is included in climate-related risk assessments - Our Group Sustainability, Investors Relations and Corporate Communications teams run a regular process of monitoring and engaging with relevant stakeholders to assess and mitigate reputational risks
Acute physical	Relevant, always included	An example of the risk type - The risk of Holcim's operations to be affected by extreme weather conditions such as flooding or water shortages. Acute physical risks are included in our risk process. Countries assess and evaluate the impact and likelihood of potential supply chain interruptions plans in the event of natural disasters and build contingency plans. The mentioned risks can have an effect on logistics costs and/or sales volumes in the affected area. Examples are flooding on the Mississippi in 2019 or low water on the Rhine in 2018. An example includes severe hurricanes which can pose a significant potential risk where we could face financial losses of operations if we do not properly mitigate climate related impacts such as flooding. How it is included in climate-related risk assessments - The financial impact is estimated based on the production volumes and revenues potentially affected. These risks are often part of insurance solutions. Additionally, our geographic and business diversification serves as a natural hedge.
Chronic physical	Relevant, sometimes included	Our broad geographical presence makes it more likely that at one or other of our operations we could be affected by chronic physical risks such as rising sea levels or water scarcity due to global warming. Chronic disciplinary collaboration including stronger regulations and effective carbon pricing mechanisms are and will be required. An example of the risk type - Rising mean temperatures poses a risk on our operations where we could potentially see an increase in operating costs as energy demands (and in turn, costs) would increase to cool facilities. How it is included in climate-related risk assessments -

**C2.3**

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

Yes

**C2.3a**

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

**Identifier**

Risk 1

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type & Primary climate-related risk driver**

Emerging regulation	Carbon pricing mechanisms
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**Primary potential financial impact**

Increased direct costs

**Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

**Company-specific description**

Cement production is a process which emits a significant amount of CO2 from the raw materials and fuels (direct) as well as the electricity (indirect). Consequently existing and emerging carbon pricing mechanisms are a key component of our risk management process and are used to inform our strategy and financial planning on a regular basis. Holcim's direct emissions are currently regulated by carbon pricing mechanisms in the EU and Canada. In Canada, we are regulated by the Alberta CCIR for our Exshaw Cement Plant, Cement Terminal in Winnipeg and Bath Cement Plant in Loyalist. Currently under the CCIR, we are subject to pay CHF 25 million annually. In Europe, we are regulated by the EU-ETS for all of our European operations, which includes 13 countries and impacts 32 integrated cement plants. The EU-ETS is introducing Phase IV in 2021, which will see an increase in direct costs to Holcim through: a) Increased price of EUAs on the market associated with the mechanism. b) Imports of clinker and cement from outside the EU and thus not subject to the EU-ETS becoming more cost competitive at the EU borders During the interviews performed at the Group level (top-down approach) the major evolutions of the European regulatory framework (ETS phase IV) were anticipated two years in advance, enabling our Group to establish the decarbonization taskforce and design a specific short term response plan. If no mitigation strategies had been put in place, we could have had a yearly financial impact of up to CHF 160,000,000. As a result of this risk, in 2019 Holcim decided to put in place a regional-wide decarbonization roadmap and to invest CHF 160 million until 2022 into 80 emissions reduction projects across Europe. This will result in an annual CO2 emission reduction in Europe by a further 15 percent like-for-like, representing 3 million tons, by 2022.

**Time horizon**

Medium-term

**Likelihood**

Likely

**Magnitude of impact**

Low

**Are you able to provide a potential financial impact figure?**

Yes, an estimated range

**Potential financial impact figure (currency)**

<Not Applicable>

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

40000000

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

160000000

**Explanation of financial impact figure**

To estimate the potential of future CO2 costs we have estimated the yearly EU Allowances requirements based on EU production levels and free allowance allocation. To arrive at our financial impact figures, we have applied a sensitivity analysis as part of our scenario modeling. The financial impact provided in this example aims to represent one of many results from our sensitivity analysis and should not be considered as a financial forecast. In the model, we have assumed a CO2 price between 40 CHF / EUA (low) and 80 CHF / EUA (high) to determine the range of the impact. In our sensitivity analysis we have also considered different scenarios of EU Allocation that included both, being in deficit and / or surplus. Purely for the purpose of the financial figures calculation we have used a scenario that considers between 1 Mio (low) and 2 Mio (high) EU Allowances needs per year if no mitigating actions are included after 2021, and at constant production volumes. The minimum and maximum financial impacts were estimated to range between 40'000'000 and 160'000'000 (Minimum: 1,000,000 EUAs x 40 CHF = 40,000,000 CHF; Maximum: 2,000,000 EUAs x 80 CHF = 160,000,000 CHF). In any case the magnitude of this scenario is considered low since it is < 5% of Group operating EBIT.

**Cost of response to risk**

1000000

**Description of response and explanation of cost calculation**

An example of company-specific activities to manage the risk: Ahead of the implementation of Phase IV of the EU-ETS, Holcim recognized that it must implement further emissions reduction activities to reduce the financial impact of increased costs of fossil fuels. As a result, in 2020 we implemented a Europe-wide decarbonization roadmap for all of our facilities in this region such as our Austrian Cement Plant in Retznei, where we have achieved more than 90% of fuel substitution. The roadmap focuses on 4 key areas; i) Energy efficiency improvements and acceleration of Alternative Fuel usage ii) Enhanced product portfolio optimization to accelerate the production of low carbon products iii) Network optimization iv) and innovation of CO2 neutral technologies. This program is executed by respective countries, supported by Group functions and closely monitored by the Executive Committee. In addition, as of 2020, we are undergoing 20 piloted CCUS projects and announced a further 4, launched our 2030 net zero target to reduce our Scope 1 emissions to 475 kg net CO2 per ton of cementitious material and are working to research alternative raw materials for use in our products. How the figure for the cost is calculated: Assuming that 10 people at regional level are dedicated to coordinate the initiative and regional average management cost for senior staff of CHF 100k, the total cost could be in the range of CHF 1 million: 10 FTEs x 100'000 CHF = 1'000'000 CHF

**Comment**

No additional comments

**Identifier**

Risk 2

**Where in the value chain does the risk driver occur?**

Downstream

## Risk type & Primary climate-related risk driver

Technology	Unsuccessful investment in new technologies
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### Primary potential financial impact

Increased capital expenditures

### Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

### Company-specific description

Beyond its 2030 targets and journey to net-zero, Holcim is preparing the future today by piloting more than twenty CCUS projects in Europe and North America. Working with other multinationals and start-ups, the pilots are evaluated in terms of cost, technical feasibility, compatibility with CO2 usage opportunities, and aspects of viability and scalability. Our objective is to develop a handful of solutions for use and storage that can be combined in different ways and environments. However, no single solution will be perfectly scalable as different environments present different conditions, from local partners to geological conditions favorable for storage. In order to catalyze the investment required for operating carbon-capture, a widespread multi-disciplinary collaboration including stronger regulations and effective carbon pricing mechanisms are required. Holcim is engaged in several initiatives which require large investments and others that are still under evaluation. In Europe, based on the extensive research undertaken by the European Cement Research Academy (ECRA), the project Westküste100, CO2 from our Lägerdorf cement plant in Germany will be transformed into synthetic fuel. This nine-company consortium is focused on the creation of low-carbon solutions and the development of end-to-end sustainable business practices. In North America, Canada, we initiated a project partnership with Svante and Total to develop and demonstrate the first full-cycle solution to capture and reuse CO2 from a cement plant while reducing greenhouse gas emissions. This project CO2MENT will demonstrate and evaluate Inventys' CO2 Capture System and a selection of CO2 utilization technologies at Holcim's Richmond, BC plant. Large-scale deployment of CCU/S will require the development of large-scale CO2 transportation and storage networks, going beyond specific industrial clusters. It is highly dependent on political and regulatory support that is necessary to build the investment business case (e.g. recognition and compensation for carbon removal in installations where carbon is captured for use as a feedstock or for storage). The risk of the cost of technology being significantly higher than existing carbon pricing mechanisms and the lack of integrated deployment of carbon capture and required supply chain ecosystems (transportation, sequestration, etc.), could hence prevent Holcim from a successful and economically viable implementation of carbon capture technologies.

### Time horizon

Short-term

### Likelihood

More likely than not

### Magnitude of impact

Low

### Are you able to provide a potential financial impact figure?

Yes, an estimated range

### Potential financial impact figure (currency)

<Not Applicable>

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

30000000

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

60000000

### Explanation of financial impact figure

The potential financial impact figures relate only to the capital expenditure required, and it is consistent with Holcim's recent projects and assessments. To estimate this potential financial impact figure we have referred to the four CCUS on-going activities i) the project Westküste100, where CO2 from the Lägerdorf cement plant in Germany will be transformed into a synthetic fuel, ii) the CO2MENT project in Canada that is testing an innovative end-of-pipe solution for CO2 removal and reuse from a cement plant. We have estimated an investment effort to be around CHF 30 million per initiative. Maximum financial impact figure: 2 initiatives x 30,000,000 CHF = 60 Mio CHF Minimum financial impact figure: 1 initiative x 30,000,000 CHF = 30 Mio CHF The magnitude of this scenario is considered low since the estimated amount remains below < 5% of Group operating EBIT.

### Cost of response to risk

3000000

### Description of response and explanation of cost calculation

Holcim realizes that it must implement emissions reduction activities to achieve its Net Zero target by 2030. Holcim is investing in a number of pilot CCUS projects to refine the process and increase efficiency, as well as working with partners. For example, as of 2020 we have piloted over 20 CUS projects in the US, Canada, France and the Philippines, and announced a further four. We have also initiated a project partnership with Svante to develop and demonstrate the first full-cycle solution to capture and reuse CO2 from a cement plant. This is a joint partnership and Holcim invested 50% to the research at a cost of CHF 200 million. The project, CO2MENT, is expected to result in 80% of carbon being reduced at our Richmond, British Columbia facility. The costs of the management actions have been estimated assuming a project management cost of approximately 10% the investment effort per initiative. These have been estimated under the explanation of the total financial impact figure at 30 Mio CHF:  $0.1 \times 30'000'000 \text{ CHF} = 3'000'000 \text{ CHF}$

### Comment

No additional comments

### Identifier

Risk 3

### Where in the value chain does the risk driver occur?

Direct operations

## Risk type & Primary climate-related risk driver

Chronic physical	Changes in precipitation patterns and extreme variability in weather patterns
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### Primary potential financial impact

Decreased revenues due to reduced production capacity

**Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

**Company-specific description**

Being present in 70 countries increases Holcim's exposure to meteorological and geological events such as natural disasters or climate hazards which could damage Holcim's property or lead to business interruption with a material adverse effect on the Group's operations. We have operations in locations that are at particular risk of extreme variability in weather patterns. For instance in India, where increased flooding is projected to have an impact on our subsidiaries Ambuja Cements and ACC operate with more than 30 cement and grinding operations. If one of our sites were impacted by a flooding event this could result in a decrease in our revenues from reduced production capacity. According to our risk assessment, interruption from flooding in just one facility in India could impact revenues by up to 20,000,000 CHF. Previously, Holcim has been impacted by flooding in regions where we operate, and this has impacted our revenues. For example, in 2019 heavy rainfall led to flooding of the Mississippi River which affected our ability to transport Cement and Limestone filler to ongoing projects in St. Louis and Memphis and led to an estimation of the impact on EBIT up to 5%. Through scenario modeling, we have estimated the financial impact of a potential sales volume decrease resulting from meteorological conditions or geological events, considering a number of variables like: (demand forecasts, cement price development, length of business interruption).

**Time horizon**

Short-term

**Likelihood**

More likely than not

**Magnitude of impact**

Low

**Are you able to provide a potential financial impact figure?**

Yes, an estimated range

**Potential financial impact figure (currency)**

<Not Applicable>

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

10000000

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

20000000

**Explanation of financial impact figure**

For the potential financial impact range, we have estimated a Holcim cement plant located in India, with an annual sales volume of 1 million tons of cement that suffers a business interruption due to severe weather conditions. We have estimated the period required to overcome the interruption and be fully operational in the range of 3 to 6 months. The derived loss of volume sold will be [250'000 - 500'000] tons of cement. The calculation of the potential financial impact is completed by assuming a commercial margin of 40 CHF per tonne of product leads to a potential financial impact of [10 - 20] CHF million. Minimum: 250,000 t / year x 40 CHF / t cement = 10,000,000 CHF Maximum: 500,000 t / year x 40 CHF / t cement = 20,000,000 CHF The magnitude of this scenario is considered low since it is < 5% of Group operating EBIT.

**Cost of response to risk**

1500000

**Description of response and explanation of cost calculation**

Holcim's crisis Management System sets out the requirements for each operation to respond against physical risks, including Emergency Response Plan, Crisis Management Plan, Business Continuity Plan, Evacuation Plan. Our leading positions worldwide and a balanced portfolio serves as a buffer against sales variations in the markets where we operate. In case of this event to occur, we foresee production level adjustments in business operations that are in the proximity of the affected site combined with ad-hoc delivery routes to mitigate the impact. For example, as part of our bottom-up risk assessment, in the Spring of 2019 the Holcim team in the US identified and reported the increased risk of flooding down the Mississippi River. Heavy rainfall was expected to lead the banks of the Mississippi River to burst, disrupting our operations as Holcim uses this route to transport Cement and Limestone filler to cities such as St. Louis and Memphis. This risk was noted as having a 'Very Likely' chance of occurring with a maximum financial impact of 5% on our EBIT in this region. On the inbound side, the entity had about 3 million USD in additional expense from having to truck in raw materials and fuels instead of the more efficient and cost-effective modes of barge and/or rail. On the outbound side, the entity incurred an additional 6 million USD of unplanned spend in network shifts directly due to the flood and 9 million USD due to increased shipping costs. Our US division implemented a response plan which consisted of changing the means of transportation and production sourcing, utilizing temporary seasonal floating storage and short term rail track. In 2020 and 2021, 1.4 million USD will be spent through offsite railcar storage and filling up a dome in St. Paul in the winter. This decision would provide about a 2 million USD benefit in case of another flood event. Should this risk reoccur with the same magnitude, this would represent less than 2% of our Group EBIT which is not considered to be substantive. The costs associated to amend transportation routes are an estimate of the resources involved in the decision making process. Assuming that a team of 15 FTEs at Group level is dedicated to ensuring the coverage of volume demands through logistics and trading routes and assuming a global management cost of CHF 100k per manager, the total cost is in the range of 1,5 Mio CHF on management costs: 15 FTEs x 100'000 CHF = 1'500'000 CHF

**Comment**

No additional comments

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

Yes

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

Opp1

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

Downstream

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Development and/or expansion of low emission goods and services

**Primary potential financial impact**

Increased revenues resulting from increased demand for products and services

**Company-specific description**

One of Holcim's main products, concrete, is an intrinsically low-carbon, resilient, recyclable and versatile material, and it is used across our built environment. It is an essential material for resilient infrastructure and for responding to societal expectations. Buildings consume 90% of their total energy during usage through heating, lighting and air-conditioning; only 10% of consumption is linked to the manufacture of building materials and the construction phase. As a growing market opportunity, Holcim focuses on developing products and solutions that contribute to improving buildings' energy efficiency. Half of our resources and 40% of our patents are aimed at finding sustainable solutions, with a strong focus on low carbon construction. Holcim is continuously developing low and ultra-low carbon products, such as: Susteno 3R, which saves up to 20% CO<sub>2</sub> compared to an average cement type, and which is the world's first cement that is upcycling construction and demolition waste materials. Solida is a special application cement which absorbs carbon in the binding process with a potential up to 70% reduction in carbon. Our green concrete ECOPact is meeting an increasing customer interest, as construction projects are putting a focus not only on their operational carbon emissions but also want to reduce their embodied carbon footprint. Here we have a tailored offer with at least 30% carbon reduction and the offer to offset the remaining carbon footprint with the ECOPact ZERO line. <https://www.holcim.com/ecopact-the-green-concrete> Beyond material carbon emissions, we are offering products and services which help customers to reduce their life cycle carbon footprint. Our insulating foam AIRIUM™ is a high performance insulating product, fully recyclable, fireproof, with one of the lowest carbon footprints in the industry. <https://www.holcim.com/airium> Our ORIS tool is a digital platform for holistic data-driven decisions on road sustainability. <https://www.holcim.com/oris> Currently 22% of Holcim net sales are derived from low carbon products. We expect a growth in low-carbon product demand of 5% to 10% on a yearly basis. Therefore a short-term time horizon is considered for this opportunity to materialize. The Group's strategy will further focus now on expanding the deployment of our existing low and carbon-neutral concrete in other markets and continue to grow our portfolio of low carbon products.

**Time horizon**

Medium-term

**Likelihood**

Likely

**Magnitude of impact**

Medium-low

**Are you able to provide a potential financial impact figure?**

Yes, an estimated range

**Potential financial impact figure (currency)**

<Not Applicable>

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

254562000

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

509124000

**Explanation of financial impact figure**

By investing in R&D and the development of new low carbon products we aim to cover the expected increase in low carbon construction products demand. We expect a growth in low-carbon product demand of 5% to 10% on a yearly basis. The financial impact has been estimated computing this expected growth to the Holcim 2020 net sales derived from low carbon solutions representing about 22% our total CHF 23.142 bn. Low carbon solutions Minimum: 23'142 mCHF x 0.22 x 0.05 CHF = 254,562,000 CHF Maximum: 23'142 mCHF x 0.22 x 0.10 CHF = 509,124,000 CHF These figures are to be seen as an annual additional net sales derived from low carbon solutions as opposed to the cost of realizing this opportunity. The magnitude of this scenario is considered medium since it falls within the range 6-12% of Group operating EBIT. Low carbon solutions are Products and solutions - primarily Green Cement types and Green Concretes such as ECOPact.

**Cost to realize opportunity**

175000000

**Strategy to realize opportunity and explanation of cost calculation**

Holcim continues to focus on developing new low carbon products and further deploy the existing ones. There are two main business activities involved: i) Our innovation Center in Lyon acts as a hub in a network of local laboratories and country-level innovation teams. The innovation organization counts more than 200 researchers within Holcim. Thanks to this networked approach, customers around the world have benefited from tailored solutions to build more quickly and efficiently, and even to reduce their impact on the environment. ii) The Holcim Foundation for Sustainable Construction promotes and encourages the development and design of a sustainable built environment. It is a key lever to identify relevant innovations in an early stage. i) Some examples: Holcim's subsidiary, Holcim Mexico, has launched an innovative insulating concrete Ecoterm® that can bring energy consumption savings up to 25% compared to regular concrete. ii) Another example is the Thermedia® range of structural, insulating concrete, and our Efficient Building™ construction systems, such as double-skin concrete walls or UHPC lightweight insulated facades. The annual cost associated with developing this opportunity is included in the Group's operating profit are the research and development costs of CHF 171 million of which CHF 124 million was incurred in Holcim's innovation centers (2019: CHF 155 million of which CHF 96 million in Holcim's innovation centers) (annual report 2020 page 189) and the annual budget of the Holcim Foundation for Sustainable Construction in an awards year (CHF 4 million). The sum of the two results in (171+ 4) Mio CHF = 175 Mio CHF

**Comment**

No additional comments

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**Identifier**

Opp2

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

Direct operations

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Development and/or expansion of low emission goods and services

**Primary potential financial impact**

Reduced indirect (operating) costs

**Company-specific description**

It is during the production of clinker, the main component of cement, when most CO2 emissions associated with cement occur. The majority of these emissions are unavoidable, as they result from the chemical reaction that occurs when the raw material (limestone) calcinates into clinker in the kiln. This decarbonation process is our largest source of CO2 emissions, accounting for 68 percent of our total Scope 1 emissions in cement production. One of the key Holcim levers to reduce the carbon emissions from our operations, is by replacing the volumes of clinker in our final cement products with alternative mineral components such as pozzolan, slag or fly ash that reduces the carbon intensity of the cement. A significant portion of these constituents come from waste or byproducts recovered from other industries. This is a company-wide initiative. Currently, Holcim products use an average of 29 percent of constituents to replace clinker, resulting in one of the lowest levels of clinker content in the sector. However, in markets where these factors are favorable, our replacement rates have reached 50 percent, presenting this as a great opportunity to further scale up this level of performance. Thanks to the replacement of clinker in our final cement products among other levers, Holcim Net emissions per ton of cementitious products are roughly 5 percent lower than the industry average (see Getting the Number Rights report 2018).

#### Time horizon

Short-term

#### Likelihood

Likely

#### Magnitude of impact

Low

#### Are you able to provide a potential financial impact figure?

Yes, an estimated range

#### Potential financial impact figure (currency)

<Not Applicable>

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

12488000

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

24976000

#### Explanation of financial impact figure

To estimate the potential to save future CO2 costs we have assumed the scenario of reducing our clinker factor by 1 percentage point a year in our business operations in Europe. We have estimated the impact of a 1% improvement in the clinker factor equals a reduction in our carbon intensity of 7 kg CO2 / cementitious. Assuming an EUA price in the range of 40 to 80 CHF/t of CO2 impacting our European production the financial range estimate is [ 12,488,000 CHF - 24,976,000 CHF ]. Assuming a volume of cementitious of 44,600,000 t cem: Minimum:  $1 \times 44,600,000 \text{ t cem} \times 40 \text{ CHF} / \text{t cem} \times 0.007 \text{ tCO}_2 / \text{t cem} = 12,488,000 \text{ CHF}$  Maximum:  $1 \times 44,600,000 \text{ t cem} \times 80 \text{ CHF} / \text{t cem} \times 0.007 \text{ tCO}_2 / \text{t cem} = 24,976,000 \text{ CHF}$  The estimated figure shows the potential of reducing CO2 costs by reducing the clinker factor. It does not include the required investment and additional operating costs as this is competitively sensitive information. The magnitude of this scenario is considered low since it is < 5% of Group operating EBIT.

#### Cost to realize opportunity

300000

#### Strategy to realize opportunity and explanation of cost calculation

As part of the decarbonization roadmap launched in Europe, a dedicated team of experts oversees and regionally coordinates the strategy of clinker factor reduction of the region, managing our product portfolio against saturation/norms compliance and quality standards. The team also manages relevant capex projects on selected kilns across the region. In Switzerland, the average cement has a clinker content of around 75%, but recent efforts from Holcim Switzerland, in partnership with the Swiss Federal Institute of Technology (ETH) Zürich, have yielded a mass cement with less than 50% clinker. To replace the clinker, a combination of high-quality limestone, calcined shales and fly ash were used. A natural activator that was developed by ETH, as well as specially adapted admixtures from Sika, ensure that this low-clinker cement still retains its quality as a building material. This new cement is currently undergoing practical trials, being used for a construction project in Vorarlberg, Austria. Cost: The annual cost associated with developing this opportunity represents the cost of the Regional Cement Manufacturing Excellence resources to identify and implement the respective projects to reduce our clinker factor. Assuming that a team of 3 FTE in the region is dedicated to coordinating these activities and assuming a regional average management cost for senior staff of 100k CHF, the total cost could be in the range of CHF 0,3 million:  $3 \text{ FTEs} \times 100,000 \text{ CHF} = 300'000 \text{ CHF}$  It does not include the required investment and additional operating costs as this is competitively sensitive information.

#### Comment

No additional comments

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#### Identifier

Opp3

#### Where in the value chain does the opportunity occur?

Direct operations

#### Opportunity type

Energy source

#### Primary climate-related opportunity driver

Use of lower-emission sources of energy

#### Primary potential financial impact

Reduced direct costs

#### Company-specific description

Another key lever to reduce the carbon intensity of our cement production is to use pretreated waste and low-carbon fuels. These serve as a replacement for fossil fuels that provide the energy needed to operate a cement kiln. Globally, Holcim currently sources 21% of its energy from alternative fuels, low-carbon fuels and biomass. In some of our operations, we have been able to meet more than 90% of our energy requirements with alternative fuels, thus we are convinced of the potential to increase this rate significantly in the coming years. Using these alternative energy sources diverts waste from incineration or landfill, providing a solution to the growing waste disposal problems faced by society, and helping to keep fossil fuels in the ground. At the same time they help to reduce our CO2 emissions, as most of them emit less CO2 than traditional fuels. Other sources, such as biomass, are considered carbon neutral. Holcim is exploring alternative fuels to replace conventional fossil fuels in its operations. Globally, we currently source 21% of our energy from alternative fuels such as biomass which accounts for 7%. In some of our operations such as Reztnei in Austria we have been able to meet more than 90% of our energy requirements with alternative fuels. We are expecting to see the use of alternative fuels in operations increase by 75% in the next 5-years.

#### Time horizon

Short-term



**Likelihood**

Likely

**Magnitude of impact**

Low

**Are you able to provide a potential financial impact figure?**

Yes, an estimated range

**Potential financial impact figure (currency)**

&lt;Not Applicable&gt;

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

12488000

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

24976000

**Explanation of financial impact figure**

To estimate the potential to save future CO2 costs we have assumed the scenario of increasing our substitution rate of alternative fuels by 2 percentage points a year in our business operations in Europe. We have estimated the impact of a 1% improvement in the TSR equals a reduction in our carbon intensity of 3.5 kg CO2 / cementitious. Assuming an EUA price in the range of 40 to 80 CHF/t of CO2 impacting our European production the financial range estimate is [ 12,488,000 CHF - 24,976,000 CHF ]. Minimum: 2 x 44,600,000 t cem x 40 CHF / t cem x 0.0035 tCO2 / t cem = 12,488,000 CHF Maximum: 2 x 44,600,000 t cem x 80 CHF / t cem x 0.0035 tCO2 / t cem = 24,976,000 CHF The estimated figure shows the potential of reducing CO2 costs by reducing the clinker factor. It does not include the required investment and additional operating costs as this is competitively sensitive information. The magnitude of this scenario is considered low since it is < 5% of Group operating EBIT.

**Cost to realize opportunity**

500000

**Strategy to realize opportunity and explanation of cost calculation**

Through Holcim's business Geocycle, we offer safe and ecological waste solutions, applying the highest international standards – including the German development agency GIZ guidelines on co-processing waste and the Basel Convention. Geocycle offers strategic waste assessment and expertise regarding local regulations. It also provides logistics to transport waste to its state-of-the-art pre-processing facilities, where it is transformed into fuel and raw materials. In 2020, 21 percent of our thermal energy demand for clinker production was covered by alternative fuels. Our Austrian cement plant based in Retznei continued to operate with more than 90% of thermal substitution rate leading to negative fuel cost. In Retznei, the preheater kiln was replaced by a precalciner, bringing a major advantage to the kiln feeding and enabling total thermal energy costs to be reduced significantly. Retznei is seen as a role model for other plants within the Group and industry. The annual cost associated with developing this opportunity represents the cost of the Regional EU Geocycle resources dedicated to manage these projects to increase the substitution rate of alternative fuels. Assuming that a team of 5 FTE in the region is dedicated to coordinating these activities and assuming a regional average management cost for senior staff of 100k CHF, the total cost could be in the range of CHF 0,5 million: 5 FTEs x 100,000 CHF = 500,000 CHF It does not include the required investment and additional operating costs as this is competitively sensitive information.

**Comment**

No additional comments

**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)?**

	Is your low-carbon transition plan a scheduled resolution item at AGMs?	Comment
Row 1	Yes	Pursuing its rigorous science-based approach, Holcim is currently working with SBTi to set the industry's very first benchmark for aligning climate goals to a 1.5°C future for cement. Upon completion of this work, Holcim will publish its very first climate transition report in 2022. Consistent with its governance, this report will be submitted to its shareholders for a non-binding vote in 2022.

**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.

Climate-related scenarios and models applied	Details
2DS IEA B2DS IEA Sustainable development scenario	<p>i) ii) Selection of scenarios, inputs, assumptions, analytical methods used, description and relevance of time horizons: Key inputs used in the scenario analysis included our global 2018 Scope 1 emissions from cement of 121mtCO<sub>2</sub>e as a baseline, and all of our owned and operated facilities financially consolidated. Key assumptions considered under the IEA 2DS and B2DS were used in Holcim's scenario analysis, including: 1) Global Cement production based on Global GDP to reach ~ 4700 Mt cement / year by 2050, 2) Time-horizons: we considered 2022, 2030 and 2050 to define our short, mid and long term time horizons with net-zero being achieved 2070, 2060 and in 2050 to reflect potential 1.5°C pathways, 3) we considered 3 scenarios of carbon price evolution with high, medium and low variability respectively. The key analytical methods projected in the future trends of the IEA 2DS and B2DS to the regulatory requirements, frameworks and technologies were used to project potential impact on our operations. The relevance to our organization lies in the risks and opportunities of the successful deployment and scale-up of innovative technologies such as carbon capture and storage. iii) Areas covered: a) Supply chain: impact of increasing the price of fuels and alternative raw materials availability. Risks of business interruption due to changes in weather precipitations. b) Geocycle: waste derived resources availability and increasing number of waste-related regulations supporting the business case of traditional fuels replacement in cement kilns and construction materials (recycled aggregates). c) Procurement: increasing price of traditional fuels and alternative binders, leading to a need of securing these sources for the time horizons considered. iv) Company specific results: The scenario analysis highlighted a number of risks and opportunities: In the short term, in Europe and in the absence of any action plan, 32 integrated cement plants could have had financial impacts between 40 and 160 million CHF annually until 2025. It also detailed how as fossil fuels become depleted this will lead to increased cost of purchasing. Currently 71% of our energy comes from traditional fuels, presenting significant business opportunities to reduce direct and CO<sub>2</sub> costs through our Geocycle operations, of up to 25,000,000 CHF annually in EU. In the long term, the results also showed that 8 of our plants representing less than 5% of Group's clinker production and located in The Philippines, Colombia, El Salvador and Bangladesh are either 'Vulnerable' to being 'Severely' impacted by the increased frequency and severity of extreme weather events such as flooding and typhoons by 2050. It is projected that this could have a potential financial impact in infrastructure damage and CHF 20 million in revenue loss per plant from operational disruption each year by 2050. v) Information of results on business, vi) influence on business objectives and strategy The results of the scenario analysis have influenced our business strategy and objectives to set our decarbonization strategy and commit to net zero by 2030. To support this, we have joined the Business Ambition for 1.5°C with validated intermediate targets by science-based target initiative. In 2020, Holcim accelerated its efforts to establish a solid roadmap to revise its CO<sub>2</sub> targets, by setting a dedicated task force with. In parallel, it engaged with SBTi to complete the formal target submission letter to assess the alignment of its CO<sub>2</sub> targets against a B2DS scenario, first in industry. In September 2020, Holcim announced its net-zero pledge strategy and the implementation of a robust roadmap to ensure its execution, increasing its CO<sub>2</sub> reduction initiatives. In 2020, Holcim has continued its plan to invest CHF 160 million in 80 emissions reductions projects in 19 countries in Europe by 2022, and announced additional 100 CHF investment in Waste Heat Recovery in India.</p>

C3.3



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

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	i) Influence of risks/opportunities to strategy & time horizon Risks and opportunities related to the growing demand for low carbon products in the construction sector have influenced our product-related strategy and product portfolio. These are generating substantial revenues and their demand in the markets where we operate continue to increase. We expect a growth in low-carbon product demand of 5% to 10% on a yearly basis. Therefore a short-term time horizon is considered for this opportunity to materialize. This opportunity has influenced Holcim's product portfolio strategy. Since 2017, Holcim has developed low carbon products and brands such as Susteno®, ECOPact, ECOPlanet, or AIRIUM® that enable us to reduce both CO2 emissions generated by the production process and CO2 emissions for our clients in the building sector. The Group's strategy will further focus now on expanding the deployment of our existing low and carbon-neutral concrete in other markets and continue to grow our portfolio of low carbon products. ii) Case study of the most substantial strategic decision 1) Situation: An ever-increasing share of our net sales come from sustainable solutions. Expanding that range of products and solutions is part of our 2030 commitment as we continue our net zero journey. 2) Task: As part of our strategy, there was a need to expand Holcim's portfolio of low and neutral carbon products. 3) Action: In 2020, the Group decided to expand the integration of sustainable products in its portfolio of solutions and introduce a new range of green cements, concrete and building materials in new markets. 4) Result: Due to growing demand for low-carbon products in the construction sector, in 2020 Holcim dedicated CHF 171 million to research and development costs. In 2020, Holcim made the most substantial decision to launch ECOPact, the industry's broadest range of low carbon concrete for high-performing, sustainable and circular construction. After a successful initial market adoption in Germany and Switzerland, ECOPact is now available across 24 markets in all regions. This is an essential component of our strategy to advance the transition towards low-carbon and circular construction and expected to increase revenues as a result of increased demand for our sustainable products.
Supply chain and/or value chain	Yes	i) Influence of risks/opportunities to strategy & time horizon In recent years, extreme weather events such as flooding or water shortages have impacted the continuity of operations in our supply chain. As a result, Holcim's strategy has been influenced to implement mitigation measures to reduce the impact from such weather events and build resiliency programs into our supply chain operations such as developing amended transportation routes to reduce potential delays and extra costs in our supply chain. A short-term time horizon is considered for this risk to materialize. ii) Case study of the most substantial strategic decision 1) Situation: Holcim has been experiencing an increase in more frequent business interruptions in recent years due to increased frequency and severity of physical risks such as flooding and hurricanes. As a result, we have so far reduced delays in shipping by 65% due to the creation of alternative routes and stockpiling to ensure that we meet consumer demand. 2) Task: In 2019, our operations in the US were impacted from the flooding of the Mississippi River which caused disruptions in the delivery of our products for up to 3 weeks and resulted in revenue losses equivalent to 5% of the operation' EBIT, higher logistic costs and even reputational damages. 3) Action: To be prepared to deal with these events, our logistics departments have developed well prepared response plans which involve a change in product sourcing from our network of plants, additional storage options for inventory and an adaptation of the modes of transport used, reducing the impact. Consequently, the most substantial decision Holcim has made to date in this area was to implement a response plan to adapt the distribution of our products. The response plan consisted of changing the means of transportation and production sourcing for our major shipping routes in the US, utilizing temporary seasonal floating storage and short term rail track. 4) Result: As a result, Holcim US reduced delays in shipping due to the creation of alternative routes and stockpiling to ensure that we meet consumer demand. This decision brought upon a financial impact of a maximum of \$50,000,000 for our 2 entities in the US (cement and aggregates).
Investment in R&D	Yes	i) Influence of risks/opportunities to strategy & time horizon Risks and opportunities related to the growing demand for low carbon products in the construction sector, which requires solutions and innovations for a more sustainable built environment, have influenced our strategy to invest in research and development. With the strongest innovation organization in the industry and an extended global network of regional labs, reducing carbon emissions is a key priority of our innovation agenda. We expect a growth in low-carbon product demand of 5% to 10% on a yearly basis. Therefore a short-term time horizon considered for this opportunity to materialize. Half of our resources and 44% of our patents relate to low-carbon solutions, the most recent focusing on low-carbon products and carbon capture and use from our cement plants. ii) Case study of the most substantial strategic decision 1) Situation: In recent years, we have seen the demand for low carbon products from our customers increase by 85%. 2) Task: As an industry leader Holcim is required to develop new innovations towards a low carbon and circular built environment. With the strongest innovation organization in the industry and an extended global network of regional labs, reducing carbon emissions is a key priority of our innovation agenda. Holcim realized this as a business opportunity to increase its revenues by meeting this customer demand and gain a competitive advantage. 3) Action: As such, the most substantial strategic decision made to date in this area was to dedicate CHF 171 million to research and development costs, included in the Group's operating profit, out of which CHF 124 million was incurred in Holcim's innovation centers. Through this research network, research and development projects are carried out with a view to generate added value for customers focusing on development of low carbon products and solutions such as Susteno 3R, which saves up to 20% of CO2 compared to the average cement type. 4) Result: Half of our resources and 44% of our patents are now aimed at finding sustainable solutions with a strong focus on low-carbon construction. Since the launch of our new low-carbon products such as ECOPact, ECOPlanet, or Susteno 3R, we have seen revenues of low carbon products increasing on a monthly basis.
Operations	Yes	i) Influence of risks/opportunities to strategy & time horizon Our commitment to climate action, our stakeholders' request to reduce the CO2 emissions associated with operations and increased costs associated with carbon pricing mechanisms, have influenced our strategy to work towards increasing energy efficiency measures within our day-to-day operations, and explore alternative low-carbon fuels. Our cement plants continue to be the subject of continuous modernization projects to reduce CO2 emissions. Our Group-wide initiatives focus on lowering the calorific consumption, increasing the use of alternative fuels, the production of low carbon binders and the implementation of CO2 neutral technologies in our operations. These projects require large investments, influencing directly the Group's strategy on capital expenditures. This requires a yearly deployment of our decarbonation efforts. Therefore a short-term time horizon is considered for this risk to materialize. ii) Case Study 1) Situation: With our Scope 1 emissions accounting for over 60% of our total carbon emissions, respective risks and opportunities to decarbonize Holcim's portfolio of operations were assessed. As a result, in 2020 Holcim made its most substantial decision to date to set our net zero climate pledge. This pledge implies to reduce our Scope 1 emissions to 475 kg net CO2 per ton of cementitious material by 2030 from a 2018 base year. 2) Task: To fulfill our decarbonisation roadmap a range of actions to improve the energy efficiency of our operations and enhance the capacity to replace thermal energy consumption with alternative fuels. 3) Action: The Holcim Group-wide CO2 reduction strategy includes capital expenditure allocation to roll-out the actions. More specifically in Europe, a range of carbon reduction investments was approved in 2018 and are being implemented since then. 4) Result: A number of emissions reduction initiatives have been rolled out in 2020 such as co-processing 5.2 million tons of waste as fuels in 2020 providing 21% of thermal energy needed for our plants. In 2021 and following years, a large number of new projects are expected to commence or conclude. In Europe, Holcim is in the process to invest CHF 160 m and work on more than 80 projects across 19 European countries with a focus on low-carbon fuels, recycled materials and carbon-efficient solutions.

**C3.4**

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

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Direct costs Capital expenditures Capital allocation Acquisitions and divestments Access to capital Assets	Case study and specification of the time horizon covered by the financial planning of the elements selected: Holcim is subject to the EU-Emissions Trading System (EUETS), which is releasing its Phase IV bringing stricter CO2 free credit allocation systems. From our modelling, we have estimated that this would have a financial impact on our direct costs of approximately CHF 40 million to our European operations. Consequently, this has informed our financial planning strategy in the short- and medium-term to increase our capital expenditures to implement further emissions reduction activities to reduce the financial impact from the EU-ETS. As a result, in 2019 we announce a program invest CHF 160 million in more than 80 projects across 19 European countries such as Germany and France with a focus on low-carbon fuels, recycled materials and carbon efficient solutions. With this investment, we are aiming to reduce our net specific CO2 emissions in Europe by 3 million tonnes by 2022.

**C3.4a**

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

No additional comments

## C4. Targets and performance

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### C4.1

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

Intensity target

### C4.1b

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

**Target reference number**

Int 1

**Year target was set**

2018

**Target coverage**

Company-wide

**Scope(s) (or Scope 3 category)**

Scope 1

**Intensity metric**

Other, please specify (Net specific CO<sub>2</sub> per tonne cementitious)

**Base year**

2018

**Intensity figure in base year (metric tons CO<sub>2</sub>e per unit of activity)**

0.576

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

95

**Target year**

2030

**Targeted reduction from base year (%)**

17.5

**Intensity figure in target year (metric tons CO<sub>2</sub>e per unit of activity) [auto-calculated]**

0.4752

**% change anticipated in absolute Scope 1+2 emissions**

-11.8

**% change anticipated in absolute Scope 3 emissions**

0

**Intensity figure in reporting year (metric tons CO<sub>2</sub>e per unit of activity)**

0.555

**% of target achieved [auto-calculated]**

20.8333333333332

**Target status in reporting year**

Revised

**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)**

Leading the way in green construction, Holcim is the first global building materials company to sign the "Business Ambition for 1.5°C" pledge, setting a net zero target with intermediate targets approved by the Science-Based Targets initiative (SBTi). In 2020, the SBTi approved Holcim's commitment to reduce scope 1 and scope 2 GHG emissions 21% per ton of cementitious materials by 2030 from a 2018 base year. With this target, Holcim commits to reduce scope 1 GHG emissions 17.5% per ton of cementitious material and scope 2 GHG emissions 65% per ton of cementitious materials within the same timeframe. The target boundary includes biogenic emissions and removals from bioenergy feedstocks. The targets are consistent with reductions required to keep warming to Well-below 2°C. In 2020 we reduced our net CO<sub>2</sub> emissions per ton of cementitious material to 555 kg per ton. Going one step further, Holcim is partnering with SBTi to develop a roadmap for aligning climate targets to a 1.5°C future in the cement sector, pushing the boundaries of green construction.

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**Target reference number**

Int 2

**Year target was set**

2018

**Target coverage**

Company-wide

**Scope(s) (or Scope 3 category)**

Scope 2 (market-based)

**Intensity metric**

Other, please specify (CO2 Scope 2 per tonne cementitious)

**Base year**

2018

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

0.038

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

95

**Target year**

2030

**Targeted reduction from base year (%)**

65

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

0.0133

**% change anticipated in absolute Scope 1+2 emissions**

-3.4

**% change anticipated in absolute Scope 3 emissions**

0

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

0.036

**% of target achieved [auto-calculated]**

8.09716599190284

**Target status in reporting year**

Revised

**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)**

Leading the way in green construction, Holcim is the first global building materials company to sign the "Business Ambition for 1.5°C" pledge, setting a net zero target with intermediate targets approved by the Science-Based Targets initiative (SBTi). In 2020, the SBTi approved Holcim's commitment to reduce scope 1 and scope 2 GHG emissions 21% per ton of cementitious materials by 2030 from a 2018 base year. With this target, Holcim commits to reduce scope 1 GHG emissions 17.5% per ton of cementitious material and scope 2 GHG emissions 65% per ton of cementitious materials within the same timeframe. The target boundary includes biogenic emissions and removals from bioenergy feedstocks. The targets are consistent with reductions required to keep warming to Well-below 2°C. In 2020 we reduced our scope CO2 emissions per ton of cementitious material to 36 kg per ton. Going one step further, Holcim is partnering with SBTi to develop a roadmap for aligning climate targets to a 1.5°C future in the cement sector, pushing the boundaries of green construction.

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

Net-zero target(s)

Other climate-related target(s)

**C4.2b**

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

**Target reference number**

Oth 1

**Year target was set**

2020

**Target coverage**

Business activity

**Target type: absolute or intensity**

Absolute

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

Other, please specify	Other, please specify (Scope 3 emissions in metric tons of CO2.)
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**Target denominator (intensity targets only)**

<Not Applicable>

**Base year**

2020

**Figure or percentage in base year**

13831768

**Target year**

2030

**Figure or percentage in target year**

11065414

**Figure or percentage in reporting year**

13831768

**% of target achieved [auto-calculated]**

0

**Target status in reporting year**

New

**Is this target part of an emissions target?**

In addition to this pledge to reduce scope 1 and scope 2 emissions, Holcim will expand its actions across its value chain to include scope 3 emissions. With this holistic approach Holcim will reduce its transportation and fuel-related emissions by 20% by 2030, taking 2020 as baseline year.

**Is this target part of an overarching initiative?**

Other, please specify (Extended commitment as part of Holcim's Net-Zero pledge (required formally for scope 1 and 2 emissions only))

**Please explain (including target coverage)**

Despite, as part of our commitment to Business Ambition for 1.5°C, we are required by SBTi to set up targets for scope 1 and 2 emissions, and our scope 3 emissions represent only 20% of our total footprint, at Holcim we wanted to take a holistic approach with regards to the most material Scope 3 sources. In 2020 we improved the way we measure and account the CO2 in our supply chain, using a comprehensive and rigorous approach. A methodology aligned with Greenhouse Gases (GHG) and Global Concrete and Cement Association (GCCS) protocols and assured by EY. Based on the methodology, we identified that 50% of the emissions are concentrated in 2 categories: Transportation (outbound logistics) = 27% and Fuels & Energy = 24% which are the initial focus of our reduction target on Scope 3 emissions.

**C4.2c**

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

**Target reference number**

NZ1

**Target coverage**

Company-wide

**Absolute/intensity emission target(s) linked to this net-zero target**

Int1

Int2

**Target year for achieving net zero**

2050

**Is this a science-based target?**

Yes, and we have committed to seek validation of this target by the Science Based Targets initiative in the next 2 years

**Please explain (including target coverage)**

Leading the way in green construction, Holcim is the first global building materials company to sign the "Business Ambition for 1.5°C" pledge, setting a net zero target with intermediate targets approved by the Science-Based Targets initiative (SBTi). Going one step further, Holcim is partnering with SBTi to develop a roadmap for aligning climate targets to a 1.5°C future in the cement sector.

**C4.3**

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

Yes

### C4.3a

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

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	50	0
To be implemented*	30	1000000
Implementation commenced*	19	750000
Implemented*	53	1055000
Not to be implemented	0	0

### C4.3b

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

#### Initiative category & Initiative type

Low-carbon energy consumption	Other, please specify (Waste-derived fuels including biomass and efficiency measures)
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#### Estimated annual CO2e savings (metric tonnes CO2e)

430000

#### Scope(s)

Scope 1

#### Voluntary/Mandatory

Voluntary

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

5700000

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

35000000

#### Payback period

1-3 years

#### Estimated lifetime of the initiative

21-30 years

#### Comment

This includes 40 alternative fuels projects implemented across the Group. Annual CO2 Net savings are estimated from replacement of traditional fossil fuels with biomass and alternative fuels, driven by an increase of our thermal energy substitution rate of +1 percentage point (21% in 2020 vs 20% in 2019) (Sustainability Performance Report 2020, page 6). The average payback period reflects those projects implemented.

#### Initiative category & Initiative type

Energy efficiency in production processes	Process optimization
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#### Estimated annual CO2e savings (metric tonnes CO2e)

510000

#### Scope(s)

Scope 1

#### Voluntary/Mandatory

Voluntary

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

9000000

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

36000000

#### Payback period

4-10 years

#### Estimated lifetime of the initiative

6-10 years

#### Comment

This includes 13 process efficiency projects implemented across the Group. Annual CO2 Net savings are estimated from savings that do not originate from the replacement of traditional fuels with alternative fuels but from the increased kiln efficiency and reduction of calcination CO2 emissions. The average payback period reflects those

projects implemented.

**Initiative category & Initiative type**

Low-carbon energy consumption	Other, please specify (Renewable Electricity)
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**Estimated annual CO2e savings (metric tonnes CO2e)**

115000

**Scope(s)**

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

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

0

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

0

**Payback period**

No payback

**Estimated lifetime of the initiative**

16-20 years

**Comment**

In the 2020 reporting year, 253,000 MWh of additional renewable electricity were purchased or produced. Considering our average grid emission factor of 454 kg CO2/MWh, a total of around 115'000 t CO2 of Scope 2 emissions were avoided. The purchase of renewable electricity did not require additional investments (on top of the standard price of electricity) neither has it generated monetary savings.

**C4.3c**

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

Method	Comment
Dedicated budget for low-carbon product R&D	Innovation through research and development projects plays a key part in the Group's CO2 emissions reduction activities. Holcim's innovation centers in France, Switzerland, and a worldwide network of laboratories are delivering locally tailored solutions backed by global expertise. Through this research network, research and development projects are carried out with a view to generate added value for customers through end user oriented products and services focusing on i) the development of low carbon products and solutions aiming at environmental protection and lowering the Group's environmental footprint, ii) breakthrough technologies aiming at production systems improvements and iii) innovation through digital technology into all areas of Holcim's business, fundamentally changing how the Group operates and delivers value to customers. Included in the Group's operating profit are the research and development costs of CHF 171 million of which CHF 124 million was incurred in Holcim's innovation centers (2019: CHF 155 million of which CHF 96 million in Holcim's innovation centers) (annual report 2020 page 189). Half of our innovation projects are aimed at finding low-carbon solutions, whether they are digital tools to empower greener building, breakthroughs in the chemical processes underlying our cement or shaping the construction industry of the future through our contributions to 3D-printed buildings. In 2020 we gave a special push to green building with our EcoLabel, which transparently brands all cement and concrete with at least 30% lower CO2 footprint compared to local industry standard or 20% recycled content. Recycled materials such as Aggneo, our range of high-quality aggregates processed from recycled concrete, help make it circular. Materials like Airium improve energy efficiency. Services such as Lafarge360 or our contributions to 3D-printed buildings help builders measure the CO2 impact of different material choices, promote sustainable design and building solutions. To keep a full pipeline of sustainable solutions, our Innovation Center in Lyon, France dedicates over 50% of its resources to green construction and low carbon solutions, and over 40% of its patents are in this area.
Compliance with regulatory requirements/standards	Finance, Public Affairs and Sustainability teams develop in collaboration different scenarios analysis to quantify the potential impacts of regulatory requirements / standards. This work is used to inform regional and country existing business plans and short term strategies when significant risks are identified, leading to investments in emissions reduction activities where needed. An example is the transition to the phase 4 of the new European Trading System where Holcim has implemented a regional-wide decarbonization roadmap. As part of this roadmap, a number of CAPEX projects are being considered or / and under execution, aiming to improve our operations' energy efficiency and reduce carbon intensity.
Internal price on carbon	Holcim promotes the use of the Integrated (Economic, Social and Environmental) Profit and Loss Statement (IPL) methodology as a fundamental tool to assess the future investments to achieve the company's sustainability ambition. This methodology quantifies the equivalent economic value on the social and environmental externalities related to the company's new projects, to raise awareness of how they may or may not affect Holcim's business, and to assess their relative importance in the decision making process. In this process a list of initiatives are proposed to achieve defined targets. A Social and Environmental PL assessment can be conducted for each of the initiatives, considering a price for carbon and other externalities. In 2013, legacy Holcim completed a pilot project in India – the largest cement market for Holcim that assigned a price to CO2, determined a cost abatement curve and subsequently derived investment decisions for the period 2013 – 2020 to reduce its carbon footprint, while improving its profitability.

**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**

Group of products

**Description of product/Group of products**

Holcim low carbon products can be considered such because of having lower CO2 emissions during the production of the clinker - and/or lower clinker content in cement, and/or lower transportation CO2 impact due to the weight, and/or increase a construction's efficiency over its entire life cycle. Holcim has a specific Definition relating to low carbon: Low carbon materials and solutions are those with at least a 30% lower carbon footprint in comparison to local market baselines. This criteria is applied for our EcoLabels. Definition introduced in 2020: We previously aligned with our SBTi-aligned 2030 target of 520 kgCO2/ton cementitious. In 2020, we introduced ECOPact, the industry's broadest range of green concrete, delivering high performing, sustainable and circular benefits. Examples: Solidia, Susteno, Holcim EcoPact, Holcim Evopact, Lafarge Galaxim Planet, specifically designed towers for windmills (renewable power) Energy Efficiency Solutions: Solutions that improve the energy efficiency in buildings (heating and cooling) while providing better indoor comfort, compared to the next best alternative. Examples: AIRIUM, Thermedia, Geothermal mortars Circular economy solutions: Solutions which save raw material extraction and hence carbon emissions by reuse of mineral materials for aggregates, concrete or cement, e.g. by: Alternative aggregates used for roads and infrastructure Excavation materials backfilling integrated in the aggregates commercial offer Concrete or asphalt which includes a high proportion of alternative aggregates Examples: Aggneo®, Full depth reclamation for road maintenance Solutions which save carbon emissions through waste management services, e.g.: Waste management services Use of waste derived materials as alternative fuels and raw materials Examples: Geocycle on-site total waste management services for L'Oreal, Mexico Resource efficient solutions: Solutions that compared to the next best alternative: Have a longer service life and decreasing needs for maintenance Require less material to achieve the same performance Examples: Ductal®, Holcim road solutions, Extensia® We are measuring the commercial success and growth of our low carbon solutions on an annual basis. Out of the 26% net sales with sustainable solutions in total, low carbon solutions account for approximately 22% of our net sales [2020 figures].

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

Low-carbon product and avoided emissions

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

Other, please specify (Holcim Sustainable Solution Guidelines)

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

22

**% of total portfolio value**

<Not Applicable>

**Asset classes/ product types**

<Not Applicable>

**Comment**

Holcim's wide range of low-carbon products (Susteno®, EcoPact or ECOPact, AIRIUM®) enables us to reduce both CO2 emissions generated by the production process and CO2 emissions for our clients in the building sector. Furthermore, we are developing with our Innovation Centre new products with higher CO2 savings potential (e.g. Solidia with a potential up to 70% CO2 reduction).

**C-CE4.9**

**(C-CE4.9) Disclose your organization's best available techniques as a percentage of Portland cement clinker production capacity.**

	Total production capacity coverage (%)
4+ cyclone preheating	92
Pre-calcliner	79

**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 2018

**Base year end**

December 31 2018

**Base year emissions (metric tons CO2e)**

121057822

**Comment**

2018 Net global Scope 1 emissions for Cement operations as reported in the 2019 CDP disclosure. The boundary covers the entities covered in the 2018 Group consolidated financial statements.

**Scope 2 (location-based)**

**Base year start**

January 1 2018

**Base year end**

December 31 2018

**Base year emissions (metric tons CO2e)**

7841245

**Comment**

Global Scope 2 (location-based) emissions for Cement operations as reported in the 2019 CDP disclosure. The boundary covers the entities covered in the 2018 Group consolidated financial statements.

**Scope 2 (market-based)**

**Base year start**

January 1 2018

**Base year end**

December 31 2018

**Base year emissions (metric tons CO2e)**

7960538

**Comment**

Global Scope 2 (market-based) emissions for Cement operations as reported in the 2019 CDP disclosure. The boundary covers the entities covered in the 2018 Group consolidated financial statements.

**C5.2**

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

WBCSD: The Cement CO2 and Energy Protocol

**C6. Emissions data**

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**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)**

109508107

**Start date**

January 1 2020

**End date**

December 31 2020

**Comment**

Total Scope 1 emissions as per 2020 consolidation for all segments: Cement, Aggregates, Ready Mix Concrete , Asphalt and Own power generation.

**Past year 1**

**Gross global Scope 1 emissions (metric tons CO2e)**

120820137

**Start date**

January 1 2019

**End date**

December 31 2019

**Comment**

Total global Scope 1 emissions for all segments: Cement, Aggregates, Ready Mix Concrete , Asphalt and Own power generation, as reported in the last year CDP disclosure. (Used as reference emissions in C7.9a)

**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 are reporting a Scope 2, market-based figure

**Comment**

Please note that the number published in the 2020 sustainability performance report follows the market based approach as our operations have the possibilities to update the national grid average with the supplier specific data when available and relevant. Location based Scope figures are publicly disclosed in the CDP submission.

**C6.3**

---

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

**Reporting year**

**Scope 2, location-based**

6387520

**Scope 2, market-based (if applicable)**

6910207

**Start date**

January 1 2020

**End date**

December 31 2020

**Comment**

Please note that the number published in the 2020 sustainability performance report follows the marked based approach as our operations have the possibilities to update the national grid average with the supplier specific data when available and relevant. Location based Scope figures are publicly disclosed in the CDP submission.

**Past year 1**

**Scope 2, location-based**

6872752

**Scope 2, market-based (if applicable)**

7525825

**Start date**

January 1 2019

**End date**

December 31 2019

**Comment**

Gross global Scope 2 emissions for all segments: Cement, Aggregates, Ready Mix Concrete , Asphalt and Own power generation, as reported in the last year CDP disclosure. (Used as reference emissions in C7.9a)

**C6.4**

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**(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**

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

**Purchased goods and services**

**Evaluation status**

Relevant, calculated

**Metric tonnes CO2e**

12988679

**Emissions calculation methodology**

Calculation method (for ALL purchased goods & services, except purchased Clinker & cement): "Spend-based method" Data used: Annual spend & volumes per country, classified by product category Data source: ERP - Procurement Total Spend Analysis (TSA) Emission Factors - source: extended Exiobase I/O model database For clinker & cement, Calculation method "Average-data" is used: annual volumes and specific EFs from GCCA GNR database (available and more accurate than spend-based)

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

0

**Please explain**

Extraction, production and transportation of goods and services purchased in the reporting year, except Fuels & Electricity (cradle-to-gate emissions). Including Transportation and distribution in vehicles and facilities owned by suppliers.

**Capital goods**

**Evaluation status**

Not relevant, explanation provided

**Metric tonnes CO2e**

<Not Applicable>

**Emissions calculation methodology**

<Not Applicable>

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

<Not Applicable>

**Please explain**

As Capital goods for the cement industry are used for a very long time period (often 40 or 50 years), allocating emissions in a reporting year is insignificant. As we adhere to the Cement Sector- Scope 3 Guidance methodology, this GHG category is categorized as not material for companies to disclose.

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

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

6864140

### Emissions calculation methodology

Emissions from fuel purchased in the reporting period (material + transportation) Emissions related to materials: calculation method "Average-based method" Data used: Annual spend & volumes per country, classified by product category. Volumes for Extraction, Production and Tier 2 transportation are from data source Fuels (including LH Trading) Data source: GLOBI - Procurement Total Spend Analysis (TSA) Emission Factors - source: GABI Database - EF based on LCA Emissions related to Road Transportation: calculation method "Distance-based method" Assumptions: Avg 100 KM leg for Liquid fuels and 200 KM leg for others - Vehicle Type: Diesel Truck (same as outbound) Emissions related to Sea Transportation: Calculation method "Diesel-based" Data used: daily fuel consumption per vessel at voyage (sailing + port operation), depending on shipment size. Estimations based on vessel speed, sea distance in nautical miles extracted from AXSMarine or similar platforms. Vessel speed assumed at 12 knots for all voyages. 3 days for loading + 3 days for unloading is assumed for all voyages Data source: Data gathered ship owners and estimations based on International Maritime Organization (IMO) standards Emission Factors - source: : IMO (Third IMO GHG Study 2014) (assuming consumption of heavy fuel oil). Emissions from Alternative Biomass Fuels: only emissions from Transportation are estimated. Emissions from Liquid fuels emissions based on Diesel and Heavy Fuel Oils. Emissions from Electricity purchased in the reporting period Calculation method: "Average-based method" Data used: Electricity Consumption Data source: iCare indicator ENV502 (Electricity consumed from the grid) Emission Factors - source: DEFRA database (UK) emission factors of the upstream (WTT) and the T&D of electricity for some countries and regions (tab "WTT- UK & overseas elec"). Mapping table to link GRUs and the best fitted country/region of the DEFRA database (not all countries are available)

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

0

### Please explain

Fuels Cradle-to-Gate emissions from purchased Fuels and Electricity in the reporting year. Including Transportation and distribution in vehicles and facilities not owned by LH. Electricity Upstream emissions of purchased electricity (extraction, production and transportation of fuels consumed in the generation of electricity, steam, heating, and cooling consumed by the reporting company) including Transmission and distribution (T&D) losses

## Upstream transportation and distribution

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

5364005

### Emissions calculation methodology

Inbound Transportation Calculation method for upstream - 3rd parties and LH Trading: same as used in Category 3 (Fuels & energy) Distribution (outbound logistics) Calculation method for Distribution : "Distance-based method" Data used: Volumes transported, average KM leg and representative vehicle, for each transportation mode Data source: TAC (Transport Analytics Center) consolidation data extracted from SAP and country operating systems, with support of Group IT and ITSCs. Data validated by country responsible for each business segment Emission Factors - source: GABI Database - EF based on LCA for Transportation AND Loading/Unloading

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

0

### Please explain

Upstream Transportation and distribution of products purchased by LH between the company's tier 1 supplier and its own operation (in vehicles or facilities not owned or controlled by LH). Transportation and distribution in vehicles and facilities NOT owned by LH. All volumes are disclosed as transported by third parties (as ~ <10% of global fleet is owned by LH and Vehicle ownership per trip is not yet available). Bulk goods: aggregates, slag, fly ash, gypsum, alternative raw material, pozzolane, sand, limestone chalk marl, alumina & ferrous

## Waste generated in operations

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Please explain

According to GCCA Guidelines for the sector to disclose Scope 3 emission, this category is considered not relevant for the Cement sector, based on materiality assessment.

## Business travel

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

41690

### Emissions calculation methodology

Calculation method: "Spend-based method" Data used: Annual spend with 3rd parties per country, classified by product category Data source: GLOBI - Procurement Total Spend Analysis (TSA) Emission Factors - source: extended Exiobase I/O model database

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

0

### Please explain

Transportation of employees for business-related activities during the reporting year (in vehicles not owned or operated by the reporting company) 86% reduction versus previous year due to COVID impact on Travel restrictions

## Employee commuting

### Evaluation status

Relevant, calculated

### Metric tonnes CO2e

69850

### Emissions calculation methodology

Calculation method: "Spend-based method" Data used: Employee number Data source: iCare Emission Factors - source: GABI Database - EF avg diesel and petrol medium car All employees assumed to commute for 30 km each day, equivalent to 6600 km / year per employee

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

0

### Please explain

Transportation of employees between their homes and their worksites during the reporting year (in vehicles not owned or operated by the reporting company)

## Upstream leased assets

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Please explain

According to GCCA Guidelines for the sector to disclose Scope 3 emission, this category is considered not relevant for the Cement sector, based on materiality assessment.

## Downstream transportation and distribution

### Evaluation status

Not relevant, calculated

### Metric tonnes CO2e

3834308

### Emissions calculation methodology

Calculation method for Distribution (outbound logistics) : "Distance-based method" Data used: Volumes transported, average KM leg and representative vehicle, for each transportation mode Data source: TAC (Transport Analytics Center) consolidation data extracted from SAP and country operating systems, with support of Group IT and ITSCs. Data validated by country responsible for each business segment Emission Factors - source: GABI Database - EF based on LCA for Transportation AND Loading/Unloading KM legs and vehicles: As the information is not gathered in our system, we use the same KM leg and vehicle type as used for outbound logistics in category 4

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

0

### Please explain

Transportation and distribution of products sold LH to distribute sold products (outbound logistics) if not paid for by LH, in vehicles and facilities not owned or controlled by LH (Customer pickups).

## Processing of sold products

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Please explain

According to GCCA Guidelines for the sector to disclose Scope 3 emission, this category is considered not relevant for the Cement sector, based on materiality assessment.

## Use of sold products

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Please explain

According to GCCA Guidelines for the sector to disclose Scope 3 emission, this category is considered not relevant for the Cement sector, based on materiality assessment.

## End of life treatment of sold products

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Please explain

According to GCCA Guidelines for the sector to disclose Scope 3 emission, this category is considered not relevant for the Cement sector, based on materiality assessment.

## Downstream leased assets

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Please explain

According to GCCA Guidelines for the sector to disclose Scope 3 emission, this category is considered not relevant for the Cement sector, based on materiality assessment.

## Franchises

### Evaluation status

Not relevant, explanation provided

### Metric tonnes CO2e

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Please explain

According to GCCA Guidelines for the sector to disclose Scope 3 emission, this category is considered not relevant for the Cement sector, based on materiality assessment.

**Investments**

**Evaluation status**

Not relevant, explanation provided

**Metric tonnes CO2e**

<Not Applicable>

**Emissions calculation methodology**

<Not Applicable>

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

<Not Applicable>

**Please explain**

According to GCCA Guidelines for the sector to disclose Scope 3 emission, this category is considered not relevant for the Cement sector, based on materiality assessment.

**Other (upstream)**

**Evaluation status**

Not relevant, explanation provided

**Metric tonnes CO2e**

<Not Applicable>

**Emissions calculation methodology**

<Not Applicable>

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

<Not Applicable>

**Please explain**

According to GCCA Guidelines for the sector to disclose Scope 3 emission, this category is considered not relevant for the Cement sector, based on materiality assessment.

**Other (downstream)**

**Evaluation status**

Not relevant, explanation provided

**Metric tonnes CO2e**

<Not Applicable>

**Emissions calculation methodology**

<Not Applicable>

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

<Not Applicable>

**Please explain**

According to GCCA Guidelines for the sector to disclose Scope 3 emission, this category is considered not relevant for the Cement sector, based on materiality assessment.

**C6.7**

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

Yes

**C6.7a**

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

	CO2 emissions from biogenic carbon (metric tons CO2)	Comment
Row 1	3180595	No comment

**C6.10**

---

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

**Intensity figure**

0.00472

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

116418313

**Metric denominator**

unit total revenue

**Metric denominator: Unit total**

24682000000

**Scope 2 figure used**

Market-based

**% change from previous year**

1.17

**Direction of change**

Decreased

**Reason for change**

0.00472 kg CO2/USD revenue in 2020 vs 0.00477 kg CO2/USD revenue in 2019 - Despite the challenging conditions in the pandemic year leading to lower cement production volumes on a like for like basis, our intensity per revenue figures normalized to USD decreased in 2020 thanks to our ongoing emission reduction initiatives such as: i) Increasing thermal substitution rate, which went up from 20% in 2019 to 21% in 2020; ii) Decreasing the content of clinker in our cements (clinker factor), which decreased from 70.8 in 2019 to 70.6 in 2020 and iii) Increasing share of low carbon electricity consumption, by entering new power purchase agreements in 2020 and reducing our grid electricity emission intensity. Further details of these initiatives as explained in chapter C4.3b

**C-CE6.11**

**(C-CE6.11) State your organization's Scope 1 and Scope 2 emissions intensities related to cement production activities.**

	Gross Scope 1 emissions intensity, metric tons CO2e per metric ton	Net Scope 1 emissions intensity, metric tons CO2e per metric ton	Scope 2, location-based emissions intensity, metric tons CO2e per metric ton
Clinker	0.826	0.785	0.052
Cement equivalent	0.629	0.598	0.039
Cementitious products	0.585	0.555	0.036
Low-CO2 materials	0.51	0.446	0.023

**C7. Emissions breakdowns**

**C7.1**

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

No

**C7.2**

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

Country/Region	Scope 1 emissions (metric tons CO2e)
Africa and Middle East	19994056
Asia Pacific (or JAPA)	34724350
Europe	26709607
Latin America (LATAM)	12761353
North America	15318741

**C7.3**

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

By activity

C7.3c

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

Activity	Scope 1 emissions (metric tons CO2e)
Clinker and Cement	105187344
Aggregates	431407
Asphalt	156272
Captive Power Plants	3618411
Concrete Products	29487
Ready Mix Concrete	85186

C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4

(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.

	Gross Scope 1 emissions, metric tons CO2e	Net Scope 1 emissions, metric tons CO2e	Comment
Cement production activities	105187343	100026481	
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Electric utility activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (midstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

C7.5

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

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
Africa and Middle East	1438083	1502646	2751643	6727
Asia Pacific (or JAPA)	1665130	1867781	2467964	194010
Europe	1606411	1596664	4830322	1212093
Latin America (LATAM)	634719	662195	2215629	56222
North America	1043177	1280921	2970699	302420

C7.6

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

By activity

C7.6c

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

Activity	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Clinker and Cement	6059301	6563947
Aggregates	217793	221427
Asphalt	17090	12595
Captive Power Plants	39083	72853
Concrete Products	10199	4494
Ready Mix Concrete	44054	34891



**(C-CE7.7IC-CH7.7IC-CO7.7IC-MM7.7IC-OG7.7IC-ST7.7IC-TO7.7IC-TS7.7) Break down your organization’s total gross global Scope 2 emissions by sector production activity in metric tons CO2e.**

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Cement production activities	6059301	6563947	No comment
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (midstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

**C7.9**

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

Decreased

**C7.9a**

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

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	115117	Decreased	0.09	Renewable electricity production and purchases increased by 253,343 MWh from 2019 to 2020. To estimate the emissions saved, we multiply with the average CO2 intensity of electricity purchase in 2020 (which would have been the alternative) (253,343 MWh * 454 kg CO2/MWh =115,117 t CO2). These savings represent 0.1% of our 2018 gross scope 1 + 2emissions reported in the CDP 2020 ((253,343 t / 128,345,961 t)*100 = 0.09%). As a reference, please see our response in the section C4.3b. Please find our changes in emissions visualized consulting the following spreadsheet: <a href="https://docs.google.com/spreadsheets/d/1z4EU7shJW9ySY8w42UNjm9eiKlyeBiTCwzIYI977AK4/edit#gid=427608021">https://docs.google.com/spreadsheets/d/1z4EU7shJW9ySY8w42UNjm9eiKlyeBiTCwzIYI977AK4/edit#gid=427608021</a>
Other emissions reduction activities	3775105	Decreased	2.94	We decreased our Emissions by 3,775,105 t by reducing both our CO2 intensity of cement production and by reducing the CO2 intensity of non cement production activities (Aggregates, RMX, Asphalt, Products & Solutions, Captive power plants). This translates into an emission decrease of 2.9% ((3,775,105t / 128,345,961 t)*100 = 2.94 %) respective to the 2019 gross scope 1 + 2 emissions declared in the CDP 2020. Please find our changes in emissions visualized consulting the following spreadsheet: <a href="https://docs.google.com/spreadsheets/d/1z4EU7shJW9ySY8w42UNjm9eiKlyeBiTCwzIYI977AK4/edit#gid=427608021">https://docs.google.com/spreadsheets/d/1z4EU7shJW9ySY8w42UNjm9eiKlyeBiTCwzIYI977AK4/edit#gid=427608021</a>
Divestment	0	No change	0	N/A
Acquisitions	0	No change	0	N/A
Mergers	0	No change	0	N/A
Change in output	7564822	Decreased	5.89	Considering a like-for-like consolidation of the 2020 reporting year, the production of cementitious material decreased by 12,851,154 t from 2019. Multiplying the 2019 specific emission factor for the production with the production decrease, emissions decreased by 7,564,822 t. This translates into an emission decrease of 5.89% compared to the 2019 Gross Scope 1+2 Emissions reported in the CDP 2020 ((7,564,822/ 128,345,961 t)*100 = 5.89%). Please find our changes in emissions visualized consulting the following spreadsheet: <a href="https://docs.google.com/spreadsheets/d/1z4EU7shJW9ySY8w42UNjm9eiKlyeBiTCwzIYI977AK4/edit#gid=427608021">https://docs.google.com/spreadsheets/d/1z4EU7shJW9ySY8w42UNjm9eiKlyeBiTCwzIYI977AK4/edit#gid=427608021</a>
Change in methodology	0	No change	0	N/A
Change in boundary	0	No change	0	N/A
Change in physical operating conditions	0	No change	0	N/A
Unidentified	0	No change	0	N/A
Other	898827	Decreased	0.7	The amount of 898,827 t was not allocated to a specific reduction type from above and reflects a decrease of 0.7% ((898,827 t / 128,345,961 t)*100= 0.70%). Please find our changes in emissions visualized consulting the following spreadsheet: <a href="https://docs.google.com/spreadsheets/d/1z4EU7shJW9ySY8w42UNjm9eiKlyeBiTCwzIYI977AK4/edit#gid=427608021">https://docs.google.com/spreadsheets/d/1z4EU7shJW9ySY8w42UNjm9eiKlyeBiTCwzIYI977AK4/edit#gid=427608021</a>

**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?**

Market-based

**C8. Energy**

C8.1

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

More than 15% but less than or equal to 20%

C8.2

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

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

C8.2a

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

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	9215322	140436186	149651509
Consumption of purchased or acquired electricity	<Not Applicable>	2803304	12432952	15236256
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	518253	<Not Applicable>	518253
Total energy consumption	<Not Applicable>	12536879	152869138	165406018

C-CE8.2a

**(C-CE8.2a) Report your organization's energy consumption totals (excluding feedstocks) for cement production activities in MWh.**

	Heating value	Total MWh
Consumption of fuel (excluding feedstocks)	LHV (lower heating value)	128682067
Consumption of purchased or acquired electricity	<Not Applicable>	14298973
Consumption of other purchased or acquired energy (heat, steam and/or cooling)	<Not Applicable>	<Not Applicable>
Total energy consumption	<Not Applicable>	142981040

C8.2b

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

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

C8.2c

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

**Fuels (excluding feedstocks)**

Coal

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

42224801

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

15794362

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

26430439

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

**Emission factor**

96

**Unit**

kg CO2 per GJ

**Emissions factor source**

CO2 Accounting and Reporting Standard for the Cement Industry WBCSD-CSI: Default CO2 Emission Factors for Fuels, Version 3.1

**Comment**

N/A

---

**Fuels (excluding feedstocks)**

Petroleum Coke

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

45803933

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

0

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

45803933

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

**Emission factor**

92.8

**Unit**

kg CO2 per GJ

**Emissions factor source**

CO2 Accounting and Reporting Standard for the Cement Industry WBCSD-CSI: Default CO2 Emission Factors for Fuels, Version 3.1

**Comment**

N/A

---

**Fuels (excluding feedstocks)**

Diesel

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

4231228

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

560544

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

3670684

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

**Emission factor**

74.1

**Unit**

kg CO2 per GJ

**Emissions factor source**

CO2 Accounting and Reporting Standard for the Cement Industry WBCSD-CSI: Default CO2 Emission Factors for Fuels, Version 3.1

**Comment**

N/A

---

**Fuels (excluding feedstocks)**

Natural Gas

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

25637262

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

1814181

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

23823081

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

**Emission factor**

56.1

**Unit**

kg CO2 per GJ

**Emissions factor source**

CO2 Accounting and Reporting Standard for the Cement Industry WBCSD-CSI: Default CO2 Emission Factors for Fuels, Version 3.1

**Comment**

N/A

---

**Fuels (excluding feedstocks)**

Lignite Coal

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

1772687

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

0

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

1772687

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

**Emission factor**

101

**Unit**

kg CO2 per GJ

**Emissions factor source**

CO2 Accounting and Reporting Standard for the Cement Industry WBCSD-CSI: Default CO2 Emission Factors for Fuels, Version 3.1

**Comment**

N/A

---

**Fuels (excluding feedstocks)**

Other, please specify (Heavy fuel)

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

3420569

---

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

0

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

3420569

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

**Emission factor**

77.3

**Unit**

kg CO2 per GJ

**Emissions factor source**

CO2 Accounting and Reporting Standard for the Cement Industry WBCSD-CSI: Default CO2 Emission Factors for Fuels, Version 3.1

**Comment**

N/A

**Fuels (excluding feedstocks)**

Other, please specify (Other traditional fuels)

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

430099

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

0

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

430099

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

**Emission factor**

86.6

**Unit**

kg CO2 per GJ

**Emissions factor source**

Calculated from reported emission factors.

**Comment**

The emission factor provided above is the actual emission factor, which is calculated using specific emission factors reported by our plants

**Fuels (excluding feedstocks)**

Other, please specify (Alternative kiln fuels excluding Biomass)

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

16915608

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

0

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

16915608

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

**Emission factor**

84.7

**Unit**

kg CO2 per GJ

**Emissions factor source**

Calculated from emission factors reported by our plants.

**Comment**

The emission factor provided above is our actual alternative fossil fuels (without biomass) emission factor, which is calculated using specific emission factors reported by our plants

---

**Fuels (excluding feedstocks)**

Other, please specify (Biomass fuels)

**Heating value**

LHV (lower heating value)

**Total fuel MWh consumed by the organization**

9215322

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

0

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

9215322

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

**Emission factor**

0

**Unit**

kg CO2 per GJ

**Emissions factor source**

Calculated from emission factors reported by our plants. An emission factor of 0 is applied to biomass fuels.

**Comment**

N/A

---

C-CE8.2c

---

(C-CE8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel for cement production activities.

**Fuels (excluding feedstocks)**

Coal

**Heating value**

LHV

**Total MWh fuel consumed for cement production activities**

26430439

**MWh fuel consumed at the kiln**

25927834

**MWh fuel consumed for the generation of heat that is not used in the kiln**

502605

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

0

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

<Not Applicable>

---

**Fuels (excluding feedstocks)**

Petroleum Coke

**Heating value**

LHV

**Total MWh fuel consumed for cement production activities**

45803933

**MWh fuel consumed at the kiln**

45803933

**MWh fuel consumed for the generation of heat that is not used in the kiln**

0

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

0

---

MWh fuel consumed for self-cogeneration or self-trigeneration  
<Not Applicable>

---

**Fuels (excluding feedstocks)**

Diesel

**Heating value**

LHV

**Total MWh fuel consumed for cement production activities**

1559673

**MWh fuel consumed at the kiln**

184582

**MWh fuel consumed for the generation of heat that is not used in the kiln**

1375092

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

0

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

<Not Applicable>

---

**Fuels (excluding feedstocks)**

Natural Gas

**Heating value**

LHV

**Total MWh fuel consumed for cement production activities**

23133738

**MWh fuel consumed at the kiln**

21978481

**MWh fuel consumed for the generation of heat that is not used in the kiln**

1155257

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

0

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

<Not Applicable>

---

**Fuels (excluding feedstocks)**

Lignite Coal

**Heating value**

LHV

**Total MWh fuel consumed for cement production activities**

1772687

**MWh fuel consumed at the kiln**

1772687

**MWh fuel consumed for the generation of heat that is not used in the kiln**

0

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

0

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

<Not Applicable>

---

**Fuels (excluding feedstocks)**

Other, please specify (Other traditional fuels)

**Heating value**

LHV

**Total MWh fuel consumed for cement production activities**

430099

**MWh fuel consumed at the kiln**

0

**MWh fuel consumed for the generation of heat that is not used in the kiln**

430099

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

0

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

<Not Applicable>

---

**Fuels (excluding feedstocks)**

Other, please specify (Alternative kiln fuels excluding Biomass)

**Heating value**

LHV

**Total MWh fuel consumed for cement production activities**

16915608

**MWh fuel consumed at the kiln**

16915608

**MWh fuel consumed for the generation of heat that is not used in the kiln**

0

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

0

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

&lt;Not Applicable&gt;

**Fuels (excluding feedstocks)**

Other, please specify (Biomass fuels)

**Heating value**

LHV

**Total MWh fuel consumed for cement production activities**

9215322

**MWh fuel consumed at the kiln**

9215322

**MWh fuel consumed for the generation of heat that is not used in the kiln**

0

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

0

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

&lt;Not Applicable&gt;

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

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	4539727	4522776	562867	545916
Heat	126539	84910	126539	84910
Steam	0	0	0	0
Cooling	0	0	0	0

**C-CE8.2d****(C-CE8.2d) Provide details on the electricity and heat your organization has generated and consumed for cement production activities.**

	Total gross generation (MWh) inside the cement sector boundary	Generation that is consumed (MWh) inside the cement sector boundary
Electricity	449861	432910
Heat	35466	0
Steam	0	0

**C8.2e****(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero emission factor in the market-based Scope 2 figure reported in C6.3.****Sourcing method**

Power purchase agreement (PPA) with a grid-connected generator without energy attribute certificates

**Low-carbon technology type**

Low-carbon energy mix

**Country/area of consumption of low-carbon electricity, heat, steam or cooling**

India



**MWh consumed accounted for at a zero emission factor**

114434

**Comment**

N/A

---

**Sourcing method**

Power purchase agreement (PPA) with a grid-connected generator without energy attribute certificates

**Low-carbon technology type**

Low-carbon energy mix

**Country/area of consumption of low-carbon electricity, heat, steam or cooling**

Argentina

**MWh consumed accounted for at a zero emission factor**

24453

**Comment**

N/A

---

**Sourcing method**

Power purchase agreement (PPA) with a grid-connected generator without energy attribute certificates

**Low-carbon technology type**

Low-carbon energy mix

**Country/area of consumption of low-carbon electricity, heat, steam or cooling**

Ecuador

**MWh consumed accounted for at a zero emission factor**

9350

**Comment**

N/A

---

**Sourcing method**

Power purchase agreement (PPA) with a grid-connected generator without energy attribute certificates

**Low-carbon technology type**

Low-carbon energy mix

**Country/area of consumption of low-carbon electricity, heat, steam or cooling**

Belgium

**MWh consumed accounted for at a zero emission factor**

820

**Comment**

N/A

---

**Sourcing method**

Power purchase agreement (PPA) with a grid-connected generator without energy attribute certificates

**Low-carbon technology type**

Low-carbon energy mix

**Country/area of consumption of low-carbon electricity, heat, steam or cooling**

Switzerland

**MWh consumed accounted for at a zero emission factor**

667

**Comment**

N/A

---

**Sourcing method**

Power purchase agreement (PPA) with a grid-connected generator without energy attribute certificates

**Low-carbon technology type**

Low-carbon energy mix

**Country/area of consumption of low-carbon electricity, heat, steam or cooling**

United States of America

**MWh consumed accounted for at a zero emission factor**

3448

**Comment**

N/A

---

**Sourcing method**

Unbundled energy attribute certificates, Guarantees of Origin

**Low-carbon technology type**

Low-carbon energy mix

---

**Country/area of consumption of low-carbon electricity, heat, steam or cooling**

India

**MWh consumed accounted for at a zero emission factor**

59296

**Comment**

N/A

---

**Sourcing method**

Unbundled energy attribute certificates, Guarantees of Origin

**Low-carbon technology type**

Low-carbon energy mix

**Country/area of consumption of low-carbon electricity, heat, steam or cooling**

United Kingdom of Great Britain and Northern Ireland

**MWh consumed accounted for at a zero emission factor**

25627

**Comment**

N/A

---

**Sourcing method**

Unbundled energy attribute certificates, Guarantees of Origin

**Low-carbon technology type**

Low-carbon energy mix

**Country/area of consumption of low-carbon electricity, heat, steam or cooling**

Ecuador

**MWh consumed accounted for at a zero emission factor**

22409

**Comment**

N/A

---

**Sourcing method**

Unbundled energy attribute certificates, Guarantees of Origin

**Low-carbon technology type**

Low-carbon energy mix

**Country/area of consumption of low-carbon electricity, heat, steam or cooling**

Italy

**MWh consumed accounted for at a zero emission factor**

107442

**Comment**

N/A

---

**Sourcing method**

Unbundled energy attribute certificates, Guarantees of Origin

**Low-carbon technology type**

Low-carbon energy mix

**Country/area of consumption of low-carbon electricity, heat, steam or cooling**

Switzerland

**MWh consumed accounted for at a zero emission factor**

201610

**Comment**

N/A

---

**Sourcing method**

Unbundled energy attribute certificates, Guarantees of Origin

**Low-carbon technology type**

Low-carbon energy mix

**Country/area of consumption of low-carbon electricity, heat, steam or cooling**

Poland

**MWh consumed accounted for at a zero emission factor**

112895

**Comment**

N/A

---

**Sourcing method**

Green electricity products (e.g. green tariffs) from an energy supplier, not supported by energy attribute certificates

**Low-carbon technology type**

Low-carbon energy mix

**Country/area of consumption of low-carbon electricity, heat, steam or cooling**

Canada

**MWh consumed accounted for at a zero emission factor**

297822

**Comment**

N/A

---

**Sourcing method**

Green electricity products (e.g. green tariffs) from an energy supplier, not supported by energy attribute certificates

**Low-carbon technology type**

Low-carbon energy mix

**Country/area of consumption of low-carbon electricity, heat, steam or cooling**

Australia

**MWh consumed accounted for at a zero emission factor**

20280

**Comment**

N/A

---

**Sourcing method**

Green electricity products (e.g. green tariffs) from an energy supplier, not supported by energy attribute certificates

**Low-carbon technology type**

Low-carbon energy mix

**Country/area of consumption of low-carbon electricity, heat, steam or cooling**

Germany

**MWh consumed accounted for at a zero emission factor**

1104

**Comment**

N/A

---

**Sourcing method**

Green electricity products (e.g. green tariffs) from an energy supplier, not supported by energy attribute certificates

**Low-carbon technology type**

Low-carbon energy mix

**Country/area of consumption of low-carbon electricity, heat, steam or cooling**

Switzerland

**MWh consumed accounted for at a zero emission factor**

21006

**Comment**

N/A

---

**Sourcing method**

Green electricity products (e.g. green tariffs) from an energy supplier, not supported by energy attribute certificates

**Low-carbon technology type**

Low-carbon energy mix

**Country/area of consumption of low-carbon electricity, heat, steam or cooling**

France

**MWh consumed accounted for at a zero emission factor**

740813

**Comment**

N/A

---

**Sourcing method**

Green electricity products (e.g. green tariffs) from an energy supplier, not supported by energy attribute certificates

**Low-carbon technology type**

Low-carbon energy mix

**Country/area of consumption of low-carbon electricity, heat, steam or cooling**

Malawi

**MWh consumed accounted for at a zero emission factor**

6718

**Comment**

N/A

---

**Sourcing method**

Green electricity products (e.g. green tariffs) from an energy supplier, not supported by energy attribute certificates

**Low-carbon technology type**

Low-carbon energy mix

**Country/area of consumption of low-carbon electricity, heat, steam or cooling**

United States of America

**MWh consumed accounted for at a zero emission factor**

1150

**Comment**

N/A

**Sourcing method**

Green electricity products (e.g. green tariffs) from an energy supplier, not supported by energy attribute certificates

**Low-carbon technology type**

Low-carbon energy mix

**Country/area of consumption of low-carbon electricity, heat, steam or cooling**

Poland

**MWh consumed accounted for at a zero emission factor**

42

**Comment**

N/A

**Sourcing method**

Green electricity products (e.g. green tariffs) from an energy supplier, not supported by energy attribute certificates

**Low-carbon technology type**

Low-carbon energy mix

**Country/area of consumption of low-carbon electricity, heat, steam or cooling**

Italy

**MWh consumed accounted for at a zero emission factor**

68

**Comment**

N/A

## C9. Additional metrics

### C9.1

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

C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6

**(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?**

	Investment in low-carbon R&D	Comment
Row 1	Yes	N/A

### C-CE9.6a

**(C-CE9.6a) Provide details of your organization's low-carbon investments for cement production activities over the last three years.**

Technology area	Stage of development in the reporting year	Average % of total R&D investment over the last 3 years	R&D investment figure in the reporting year (optional)	Comment
Alternative low-CO2 cements/binders	Full/commercial-scale demonstration	≤20%	171000000	In 2020, Research and development costs of CHF 171 million were charged directly to the consolidated statement of income, of which CHF 124 million was incurred in Holcim's innovation centers (2019: CHF 155 million of which CHF 96 million in Holcim's innovation centers) (annual report 2020 page 189).
Carbon capture and storage (CCS)	Pilot demonstration	≤20%	171000000	In 2020, Research and development costs of CHF 171 million were charged directly to the consolidated statement of income, of which CHF 124 million was incurred in Holcim's innovation centers (2019: CHF 155 million of which CHF 96 million in Holcim's innovation centers) (annual report 2020 page 189).
Low clinker cement	Full/commercial-scale demonstration	≤20%	171000000	In 2020, Research and development costs of CHF 171 million were charged directly to the consolidated statement of income, of which CHF 124 million was incurred in Holcim's innovation centers (2019: CHF 155 million of which CHF 96 million in Holcim's innovation centers) (annual report 2020 page 189).

**C10. Verification**

**C10.1**

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

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

**C10.1a**

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

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Limited assurance

**Attach the statement**

Holcim\_Sustainability\_Performance\_Report\_2020\_EN.pdf

**Page/ section reference**

Refer to pages 16 to 19, section "ASSURANCE STATEMENT"

**Relevant standard**

ISAE3000

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

100

**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 market-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**

Holcim\_Sustainability\_Performance\_Report\_2020\_EN.pdf

**Page/ section reference**

Refer to pages 16 to 19, section "ASSURANCE STATEMENT"

**Relevant standard**

ISAE3000

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

100

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### C10.1c

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(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**

Please select

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Limited assurance

**Attach the statement**

Holcim\_Sustainability\_Performance\_Report\_2020\_EN.pdf

**Page/section reference**

Refer to pages 16 to 19, section "ASSURANCE STATEMENT"

**Relevant standard**

ISAE3000

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

100

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### C10.2

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(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?

In progress

### C11. Carbon pricing

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#### C11.1

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(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

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

Alberta Carbon Competitive Incentive Regulation (CCIR) – ETS  
BC carbon tax  
Canada federal Output Based Pricing System (OBPS) - ETS  
Colombia carbon tax  
EU ETS  
Mexico carbon tax  
Québec CaT - ETS  
Switzerland ETS

**C11.1b**

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

**Alberta Carbon Competitive Incentive Regulation (CCIR) – ETS**

**% of Scope 1 emissions covered by the ETS**

0.79

**% of Scope 2 emissions covered by the ETS**

0

**Period start date**

January 1 2020

**Period end date**

December 31 2020

**Allowances allocated**

1009510

**Allowances purchased**

0

**Verified Scope 1 emissions in metric tons CO<sub>2</sub>e**

920809

**Verified Scope 2 emissions in metric tons CO<sub>2</sub>e**

0

**Details of ownership**

Facilities we own and operate

**Comment**

ALBERTA (Exshaw Plant)

**Canada federal OBPS - ETS**

**% of Scope 1 emissions covered by the ETS**

0.6

**% of Scope 2 emissions covered by the ETS**

0

**Period start date**

January 1 2020

**Period end date**

December 31 2020

**Allowances allocated**

679491

**Allowances purchased**

15728

**Verified Scope 1 emissions in metric tons CO<sub>2</sub>e**

695219

**Verified Scope 2 emissions in metric tons CO<sub>2</sub>e**

0

**Details of ownership**

Facilities we own and operate

**Comment**

Ontario (Bath Cement Plant) falls under the Canada federal OBPS system.

## EU ETS

### % of Scope 1 emissions covered by the ETS

17.02

### % of Scope 2 emissions covered by the ETS

0

### Period start date

January 1 2020

### Period end date

December 31 2020

### Allowances allocated

20022062

### Allowances purchased

0

### Verified Scope 1 emissions in metric tons CO2e

19813928

### Verified Scope 2 emissions in metric tons CO2e

0

### Details of ownership

Facilities we own and operate

### Comment

## Québec CaT

### % of Scope 1 emissions covered by the ETS

0.56

### % of Scope 2 emissions covered by the ETS

0

### Period start date

January 1 2020

### Period end date

December 31 2020

### Allowances allocated

567787

### Allowances purchased

0

### Verified Scope 1 emissions in metric tons CO2e

651173

### Verified Scope 2 emissions in metric tons CO2e

0

### Details of ownership

Facilities we own and operate

### Comment

QUEBEC (St. Constant Plant)

## Switzerland ETS

### % of Scope 1 emissions covered by the ETS

1.13

### % of Scope 2 emissions covered by the ETS

0

### Period start date

January 1 2020

### Period end date

December 31 2020

### Allowances allocated

1525440

### Allowances purchased

0

### Verified Scope 1 emissions in metric tons CO2e

1320178

### Verified Scope 2 emissions in metric tons CO2e

0

### Details of ownership

Facilities we own and operate

### Comment



C11.1c

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

**BC carbon tax**

**Period start date**

January 1 2020

**Period end date**

December 31 2020

**% of total Scope 1 emissions covered by tax**

0.46

**Total cost of tax paid**

2499468

**Comment**

BC CARBON TAX (Richmond )

**Colombia carbon tax**

**Period start date**

January 1 2020

**Period end date**

December 31 2020

**% of total Scope 1 emissions covered by tax**

0.01

**Total cost of tax paid**

46444

**Comment**

**Mexico carbon tax**

**Period start date**

January 1 2020

**Period end date**

December 31 2020

**% of total Scope 1 emissions covered by tax**

0.5

**Total cost of tax paid**

167770

**Comment**

C11.1d

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

**i) A description of your strategy for complying with the systems in which you participate**

Holcim CO2 ambition, targets and aspirations for 2022 and 2030, have been cascaded across all business units by the integration in the business management plan of the respective levers.

At the moment, the levers we are currently employing to reduce carbon intensity are focused to reduce our scope 1 and 2 emissions related to process, fuel emissions and energy purchased mainly, being fully aligned with the nature of the carbon systems under which we currently operate.

- **Clinker substitution:** Substitution of clinker with mineral components such as limestone, pozzolan, slag or fly ash. Currently, the products we market use on average 29 percent of constituents to replace clinker.
- **Waste-derived fuels and biomass:** To be used as replacement for fossil fuels that provide the energy needed to operate a cement kiln. We are currently able to source 21 percent of our energy needs from low-carbon fuels and biomass.
- **Increased energy efficiency:** We are optimizing our low-carbon power-producing assets across our production plant portfolio. We are also investing in or purchasing renewable power when it is economically advantageous and investigating opportunities to generate renewable energy by using our land for windmills or solar panel farms, or using quarries as water reservoirs for hydropower.
- **Innovation:** We are continually exploring new strategies and technologies, such as carbon capture and usage and developing new low-carbon solutions.
- **Risk and opportunities:** Monitoring and modeling of distinct and plausible carbon scenarios are used to increase the robustness of our strategy.
- **Transparency:** The Group supports transparency and improved disclosure in carbon-related performance and risks.

**ii) A description of your strategy for complying with the system in which you anticipate to participate in, and identification of when you anticipate being regulated in the next 3 years**

In our Brookfield Cement, in Nova Scotia, Canada a Cap & Trade program similar in design to the Quebec system has been recently put into place. For the last years, the country Public Affairs managers and Sustainability colleagues have been closely monitoring and modeling what would be the impact on our plant and determining the levers to ensure a smooth transition. In the country, innovative solutions such as carbon technologies are being piloted in other regions which are currently under an existing system. Key learnings are expected to be replicated throughout the cement division.

In Europe we are managing closely the transition to the phase 4 of the new European Trading System which will come into force in 2021, bringing more strict CO2 free credit allocation systems and the likely increase of fossil fuels' costs and scarcity of alternative mineral components. Holcim has already implemented a dedicated regional-wide decarbonization roadmap. The initiative has been distributed in four key areas, aligned with our global strategy:

- Energy efficiency improvements and acceleration of Alternative Fuel usage
- Enhanced product portfolio optimization to accelerate the production of low carbon binders
- Network optimization to evaluate production thresholds and network optimization synergies
- Innovation of CO2 neutral technologies such as carbon capture and storage

**iii) An example of how you have applied your strategy**

We are regulated by the EU-ETS for all of our European Operations. We have been closely managing the transition to Phase IV of this scheme, which will come into effect in 2021 and bring more strict CO2 free credit allocation systems and likely increase the cost of fossil fuels. We have calculated that these new regulations could lead to a significant increase of our direct costs. We realized the need to increase investment in emissions reduction activities, to reduce the financial impact from this scheme. As a result, the company decided to invest CHF 160 million and work on more than 80 projects across 19 European countries such as France and Germany, with a focus on low-carbon fuels, recycled materials and carbon efficient solutions. With this investment we are aiming to reduce our CO2 emissions in Europe by 3million tonnes by 2022 on a like for like basis, compared to 2018 baseline.

**C11.2**

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

Yes

**C11.2a**

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**(C11.2a) Provide details of the project-based carbon credits originated or purchased by your organization in the reporting period.**

**Credit origination or credit purchase**

Credit origination

**Project type**

Forests

**Project identification**

The Cerro Blanco Forest is a private reserve of 6,078 hectares and it is one of the last remnants of dry forest on the Ecuadorian coast. The Foundation 'Pro-bosque' protects and rehabilitates this Tropical Dry Forest Region in collaboration with Holcim Ecuador. Holcim Ecuador has an agreement with the Foundation 'Pro-Bosque' to offset the carbon footprint of their products by taking into account the carbon captured by the forest preserved. External Annual audits are carried out to monitor the forest's CO2 capture rate (currently by 'Sambito' Auditing corporation). The Ecuadorian Government recognizes the process and the external audits, 3,300 hectares are currently available to compensate emissions.

**Verified to which standard**

Not yet verified

**Number of credits (metric tonnes CO2e)**

4016.17

**Number of credits (metric tonnes CO2e): Risk adjusted volume**

4016.17

**Credits cancelled**

Yes

**Purpose, e.g. compliance**

Voluntary Offsetting

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**C11.3**

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

Yes

**C11.3a**

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

**Objective for implementing an internal carbon price**

Navigate GHG regulations  
Stakeholder expectations  
Change internal behavior  
Drive energy efficiency  
Drive low-carbon investment  
Stress test investments  
Identify and seize low-carbon opportunities

**GHG Scope**

Scope 1  
Scope 2  
Scope 3

**Application**

Our climate policy vision supports effective carbon pricing mechanisms. In Europe, our financial teams use carbon pricing aligned with EU-ETS forecast to assess our capital expenditures. In addition, Holcim promotes the use of an Integrated Profit and Loss statement as a tool to assess the initiatives proposed for future investments to achieve our sustainability ambition. This tool quantifies the equivalent economic value on the social and environmental externalities related to the company's new projects, to raise awareness of how they may or may not affect Holcim's business, and to assess their relative importance in the decision making process. A Social and Environmental P&L assessment can be conducted for each of the initiatives considering a price for carbon and other externalities. The methodology is publicly available and covers scope 1,2 and 3 emissions.

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

35

**Variance of price(s) used**

We based our figure on a combination of reports, including the Stern report (assuming USD 25/t in 2007), analysis made by the Environmental Protection Agency (taking the midpoint of 3% and 5% discount rates in 2020 and inflating this number to 2020: USD 35/t), combined with prevalent assumptions used by governments that internalize the cost of CO2. Notably, for the purposes of comparison, we considered that, in its impact assessment of the Emission Trading Directive, the European Commission assumed a range of prices between [ 40 CHF and 80 CHF].

**Type of internal carbon price**

Shadow price

**Impact & implication**

Specific description of how organization uses internal price on carbon According to the existing carbon pricing schemes, Holcim uses an internal price of carbon to estimate the economic impact on the production cost of the sites that are under the defined mechanisms in each country or region. Regarding the efficiency of each production site and the existing and projected market demand, Holcim makes decisions based on the overall financial impact that the asset has and may have in the future. Based on the obtained results roadmaps are defined to achieve the goals of our sustainability ambition, giving priority to those initiatives (new products, investments or R&D activities) that matched in high integrated P&L value, high feasibility and high estimated net present value. In addition, Holcim promotes the use of the Integrated (Economic, Social and Environmental) Profit and Loss Statement (IPL) methodology as a fundamental piece of information in its mainstream reports. The Holcim IPL assumptions are made publicly available: [https://www.holcim.com/sites/holcim/files/atoms/files/lafargeholcim\\_ip1\\_15\\_june\\_2020.pdf](https://www.holcim.com/sites/holcim/files/atoms/files/lafargeholcim_ip1_15_june_2020.pdf)

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**C12. Engagement**

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**C12.1**

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

Yes, our suppliers  
Yes, our customers  
Yes, other partners in the value chain

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**C12.1a**

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

**Type of engagement**

Innovation & collaboration (changing markets)

**Details of engagement**

Run a campaign to encourage innovation to reduce climate impacts on products and services

Other, please specify (1) Partner with suppliers in specific projects to drive innovation, CO2 reduction, 2) Joined the "Transport Decarbonization Alliance" for heavy duty vehicles. 3) Signed the "Sea Cargo Charter" committed to reduce CO2 from Sea Transportation)

**% of suppliers by number**

35

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

65

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

67

**Rationale for the coverage of your engagement**

i) Clear rationale for the coverage of your engagement ii) Clear description of measures of success iii) A company-specific description of the impact of climate-related supplier engagement according to the measure of success chosen i) Supplier sustainability compliance and performance is an integral part of sourcing decisions. We engage with suppliers to encourage innovation and reduce climate impacts from products and services purchased. To do it, we prioritize our supplier base to identify those with high ESG impact and focus our engagement efforts with them. Our main focus is on 35% of our supplier base (35'000 suppliers from 101'000 total active suppliers) representing 65% of the annual spend (CHF 9.3 billion from total spend CHF 15 billion). Suppliers identified as having high environmental impact, such as suppliers of energy, fuels and transportation, account for approximately 95% of our Scope 3 CO2 emissions (equivalent to 28 mio tons CO2), and represent 35% of the active suppliers. Through our supplier qualification process, we verify that they have an environmental management system in place to manage their impact and we identify partnership opportunities to drive CO2 reduction in our supply chain. For example, we partnered with our transportation suppliers worldwide as approximately 95% of road vehicles moving our materials are owned and operated by third parties. Through this type of engagements, we implemented in-vehicle management systems, to improve road safety and eco-driving (we provide training and monitor drivers performance in our Transport Analytics Center) as it is one of the levers to reduce the kilometers driven and consequently the resulting CO2 scope 3 emissions. We are also working on fleet optimization (eco-friendly fuels) and network optimization (eco-friendly transportation modes).

**Impact of engagement, including measures of success**

ii) and iii) We measure success in terms of the percentage (%) of the total annual spend from high ESG impact suppliers covered by our ESG qualification process. This ensures that they demonstrate their continuous improvement towards having a recognized Environmental Management System in place including climate related aspects. This illustrates the impact of our effort, covering a big supplier base across the world and with different ESG challenges. By end 2022, we target to have 100% of high ESG impact suppliers assessed to be in compliance with Holcim's environmental criteria. As part of our ESG qualification process of high ESG impact suppliers, we regularly engage with these suppliers to encourage innovation and reduce climate impacts and identify partnership opportunities to drive CO2 reduction in our supply chain. For example, in our US cement operation, we established a country partnership with our transportation suppliers to optimize the network of our outbound logistics. Actions included building water-ways and rail terminals and balancing volumes between different transportation modes (e.g: road, waterways, rail). As a result of this engagement, in 2020 we managed to save 6 billion tons of CO2 and 19 billion gallons of fuel by shipping rail and marine vs truck. Another example is the partnership with fuel and transportation suppliers in India, where we successfully completed trials to use soya extract-based biofuel in two of our sea cement carriers - Ambuja Mukund and Ambuja Vaibhav. The successful trials influenced changing the International Maritime Organization standards, and consequently the Indian government authorized to scale up the use of that diesel. Switching to biodiesel, will reduce CO2 emissions from our coastal shipping lines by 25 %. <https://www.ambujacement.com/Upload/PDF/Ambuja-Cement-Biofuel-fired-Ships--Media-Release-2021.pdf> As a result of our supplier ESG qualification engagement, by end 2020, a total of 18'870 high ESG impact suppliers were in compliance with Holcim's environmental criteria, accounting for 72% of Holcim's total spend with high ESG impact suppliers (which is equivalent to 45% of the total spend or CHF 6.7 billion CHF). We are on track to achieve our 2022 target, of reaching 100% of these high ESG impact suppliers to be in compliance with Holcim's environmental criteria.

**Comment**

No comment

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**C12.1b**

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

**Type of engagement**

Collaboration & innovation

**Details of engagement**

Run a campaign to encourage innovation to reduce climate change impacts

**% of customers by number**

100

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

0

**Portfolio coverage (total or outstanding)**

<Not Applicable>

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

i) Rationale for selecting this group of customers and scope of engagement Holcim has an important range of products and brands which can be considered as low carbon products. We are continuously encouraging our customers to improve their climate change initiatives, and we have developed and continue to develop low emission products for the construction sector. As a result, we believe that our products can support our customer's ESG goals, and therefore we engage with all our customers to encourage them to use our products for low-carbon, innovative buildings. Scope of engagement: The scope of engagement relates to three main actions: Promotion of our low carbon products: Information available in respective country websites, where we promote our low carbon products, and where customers can gather detailed information about the applications and benefits of our low-carbon product portfolio. Collaboration: Holcim Group Sustainability is engaging with the entire construction value chain including real estate developers and construction companies through its standing stakeholders panel (last meeting in July 2019). Furthermore, dedicated workshop meetings with contractors and construction companies on low carbon construction materials are taking place. Incentivisation: The Holcim Foundation for Sustainable Construction promotes and encourages the development and design of a sustainable built environment. It is a key lever for Holcim to collaborate with key customers, incentivizing relevant innovations in an early stage. The Holcim Foundation for Sustainable Construction runs a 3-year competition with USD 2 million prize money to promote sustainable approaches to creating the built environment with an active focus on reducing CO2 emissions at every stage of a structure's use cycle. The Holcim Awards are material neutral and the world's most significant competition for sustainable design. A series of "Materials Talks" webinars with several hundred participants each conducted by the Foundation in 2020 included renowned experts highlighting the propositions for re-materializing and de-carbonizing construction that were published as outcome of the international Holcim Forum 2019 by Ruby Press Berlin in "The Materials Book" that has already gone into a second edition.

**Impact of engagement, including measures of success**

Since 2003, the Holcim Foundation for Sustainable Construction has stimulated professional and targeted dialogue with over 500 practitioners, prescribers, academics and public authorities from around the globe, which are increasingly interested in our low carbon and sustainable products. In addition, we regularly engage locally with our customers to communicate updates on our respective low-carbon product portfolio. We approach customer engagement in a twofold manner; The formation of dedicated influencer teams, that reach out to and lead the conversation with customers and, secondly the level of local engagement, measured by the number of meetings local teams hold with customers. We measure the success of this engagement if we are able hold at least 10 meetings per year with our local customers with regards to the launch of new low carbon products. In 2020 and despite Covid 19, we exceeded our objective and managed to engage with our customers of ECOPact through a number of channels and in many countries, to encourage the uptake of our innovative products to reduce climate change impacts. In the last year, we held more than 15 virtual meetings with our customers in Switzerland, Germany, Belgium, USA, Canada and UK with more than 50 different contractors and construction companies to present our green concrete ECOPact. Furthermore, we expanded our engagement capabilities or formed new teams and functions in key markets like Germany, France, Australia and Romania with more to follow. These meetings addressed the key decision makers of projects across segments, and were focused around the roll out of our new low-carbon ECOPact products. As a result of our continuous engagements, new customers adopted ECOPact. The extension of the UK's high-speed rail network, for example, will use 800,000m<sup>3</sup> of ready-mix concrete from our ECOPact range, supplied by Holcim, to meet the project's performance and low-carbon requirements. Marking its first anniversary, ECOPact green concrete is now available globally in 24 markets across all five regions just one year after its global launch.

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**C12.1d**

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**(C12.1d) Give details of your climate-related engagement strategy with other partners in the value chain.**

*i) A company specific description of your climate-related engagement strategy with other partners in the value chain*

Holcim is a founding member and the Vice-Chair of the Concrete Sustainability Council (CSC). The system is designed to provide transparency on the climate, environmental, social and economic responsibility of concrete, cement and aggregate companies' operations and their supply chains. By creating a certification system for responsibly sourced concrete, the CSC aims to improve the transparency of the concrete sector, highlighting the essential role of concrete in creating a sustainable construction sector by getting recognition in 'green' procurement government policies and building rating systems. The CSC certification system consists of an operational manual and assessment criteria with guidance on their application. This criteria includes climate related measures such as energy consumption and CO2 intensity. A typical certification process is applicable to all sizes of concrete companies, and currently comprises three levels: bronze, silver and gold. Aggregate and cement suppliers can achieve a CSC supplier certificate to support their concrete clients with their CSC assessments.

*ii) A clear explanation of who 'other partners in the value chain' constitutes*

The CSC certification system has been developed together with a large group of the industry as well as certification institutes (i.e: HeidelbergCement, Cemex, CRH, IUCN, WWF). IUCN convened a consultation process with environmental experts and representatives from civil society focused on providing feedback on the system's environmental and social criteria. The revised technical manual addresses some of the feedback received and aims for continuous improvement. In this respect, CSC will continue the dialogue with civil society organizations and other stakeholders.

*iii) A case study/example of your climate-related engagement strategy with other partners in the value chain.*

As a founding member of the CSC, we engage with the CSC partners and members on a monthly basis. We engage with partners through holding monthly workshops and / or seminars with architects, environmental and industry experts to educate companies and practitioners about the latest sustainability innovations and technologies in the sector and to train them on carbon reduction potentials at building or infrastructure level. Since its inception, the CSC now has over 20 members who have adopted our certification, with more than 500 certifications issued which equate to a growth increasing more than 30% year on year over the last two years. We engage with the other partners of CSC on a monthly basis, to discuss latest ideas and improve the CSC system. As a founding member, Holcim has also adopted the CSC system into its operations since 2003. 60 of our concrete, cement and aggregates plants in 8 countries hold CSC certificates, 5 of them being CSC Gold.

**C12.3**

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**(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
- Funding research organizations

**C12.3a**

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

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Cap and trade	Support	Holcim is engaging proactively and transparently with its external stakeholders, including regional and national governments, international organisations and the civil society on the issue of carbon pricing. This includes: At country level: In the USA, as an example, Holcim is part of the "CEO Climate Dialogue" - a group of corporate and NGO CEOs who are all united in their call for carbon reduction policy and carbon pricing at federal level. At Regional level: in the EU, for example, Holcim engages directly with the European Commission services on carbon pricing policy (EU ETS), as well as through affiliated organisations such as Cembureau. At global level we engage and promote the carbon pricing agenda through organisations such as the Carbon pricing Leadership coalition (CPLC), hosted by the World Bank and on which Holcim sits on the Steering Committee. Holcim initiated a specific study looking at the impact of existing carbon pricing schemes on the construction sector. Holcim advocates for carbon pricing mechanisms that: Respond dynamically to unforeseen macro-economic evolutions; Provide an unconditional level playing field across regions and industries; Target entire value chains by tackling both supply and demand sides; Enable carbon cost pass-through, thereby creating financial incentives for carbon-efficient solutions. Ultimately, carbon pricing mechanisms must lead to an acceptance of carbon costs across value chains, as carbon costs must increasingly be absorbed in products and solutions. By creating competitive advantages for carbon-efficient products and solutions, carbon pricing mechanisms can then become a key driver for accelerating the demand for low-carbon products.	Carbon pricing mechanisms are central to the carbon neutrality transition. They must be designed in a way that stimulates much needed innovation in advanced technologies (e.g. CO2 capture) and rewards carbon-efficient products and solutions (and thus become a key driver for the demand of low-carbon products). Two particular legislative avenues that Holcim advocates for are the following: The preservation of a level playing field in relation to carbon costs in countries or regions where carbon pricing mechanisms are in place (e.g. through the establishment of carbon border adjustment mechanisms), which would foster investments in low-carbon technologies and innovation; Shift the focus of carbon pricing mechanisms from emissions to consumption. The adoption of carbon-neutrality in construction is tributary to the acceptance of carbon constraints and costs by all actors of the highly fragmented construction value chain. Carbon costs must progressively be absorbed in products and solutions in order to render the carbon-efficient products and solutions more competitive (thus reversing the current situation). This is necessary to build the necessary business case to deploy, on a large scale, advanced technologies such as Carbon Capture Utilization and Storage (CCUS) on the manufacturing side and low carbon binders on the product side. It requires a dynamic carbon pricing mechanism that is centered on carbon consumption (e.g. carbon consumption charges), integrated across value chains and addressing both supply and demand.
Other, please specify (Carbon border adjustments (CBAM))	Support	Holcim has been engaging broadly on the issue of carbon border adjustments, with a specific focus on Europe where the topic is on the climate policy agenda. Engagement takes the form of direct discussions with legislators as well as public discussion organised by external parties and stakeholders, such as the OECD Sustainable Development Roundtable or dedicated platforms such as the European Roundtable on Climate Change and Sustainable Transition.	In a European context, Holcim's position is as follows: the establishment of a CBAM forms a cornerstone for Europe's competitiveness in a carbon neutral economy. The objective must be for non-EU importers to bear the same CO2 costs as EU domestic producers. In order to ensure any form of "double protection", free allocations that are awarded to EU producers must be discounted from the carbon costs levied on imports. Such a mechanism is necessary for EU-based manufacturing to compete fairly with non-EU imports that do not have equivalent carbon costs. Furthermore, it forms an essential policy tool to build the "low-carbon business case" in the long run and secure continued investments in low carbon technologies across European assets.
Other, please specify (Taxonomy and sustainable finance)	Support	Since 2015 Holcim has taken part in many initiatives linked to the development of sustainable finance tools, and in particular carbon risks disclosure such as the TCFD and subsequently the development of the Sustainable Finance initiative at EU level. At EU level, Holcim engaged with the EU's Technical Expert Group on taxonomy to provide specialist advice linked to the definition of metrics and thresholds linked to cement manufacturing. Holcim supports the current work of the Platform on Sustainable Finance by participating in public consultations directly or indirectly with partner organisations (CEMBUREAU, Value Balancing Alliance). Holcim fully supports the use of taxonomy in a way to incentives and enables the transition towards low-carbon construction and low carbon manufacturing.	At EU level: Holcim supports the objectives of the Green Deal and believes taxonomy will enable it to accelerate investments to support the green transition. The TEG Report forms a good base to develop the Taxonomy and we welcome the inclusion of cement manufacturing as a mitigation activity to climate change. However, three points of concern are to be considered: 1/ Use of metrics and thresholds: Metrics and thresholds are being defined in order to facilitate the measurement of the mitigation performance of an activity. It seems fundamental that such thresholds are not considered as absolute thresholds leading to a practice of in/out assessments but rather the aim towards which investments should tend. 2/ To evaluate the climate impact of a building, the use of life-cycle assessments should be prioritised. We encourage the TEG report's approach to building assessment on energy performance and on embodied CO2. We also believe that the Taxonomy should remain material-neutral and not favor the use of one material vs. another. It should remain based on performance. 3/ Timing and reporting: the timing imposed on industry to fully implement the taxonomy framework is unrealistically short as it requires complex reporting mechanisms to be put in place, while implementation guidance (with details on the methodologies to be used) is not yet fully available.
Other, please specify (Carbon performance of buildings and construction)	Support	Holcim has been engaging broadly on the integration of carbon performance across the construction value chain. By way of examples, Holcim engaged proactively on this topic in the context of the UN Climate Action Summit and Parallel ClimateWeekNYC 2019. In this context, Holcim organised dedicated panel discussions and took part in many third party initiatives. In Europe, Holcim took part in the real-life testing of LEVEL(s), the EU's sustainability assessment tools for buildings that is under development and provided industrial feedback on the use of the tool in real life environment.	Integration of carbon performance in building standards and codes, ensuring the principles of material- neutrality, life-cycle performance and full value-chain mobilisation. It forms a fundamental step to develop customer acceptance and market-demand for low-carbon solutions, which today remain the exception rather than the rule.
Other, please specify (Waste management)	Support	Holcim engages globally with Government, NGO, civil society and local stakeholders on the use of co-processing technology, which allows to simultaneously substitute fossil fuels with non-recyclable waste-derived fuels and to recycle the mineral contained in the fuel into our production processes. The use of this technology requires a well established regulatory framework on waste management, as is the case in jurisdictions such as Europe, India and many countries around the world. And, it needs adequate recognition as a desirable waste management alternative that responds to the waste management hierarchy.	Enable resource-efficiency and fossil fuels substitution in energy-intensive sectors (such as cement manufacturing) by providing equal treatment across all sectors regarding the carbon-neutrality of non-fossil alternative energy sources. This is particularly important for residual (non-recyclable) waste streams that are co-processed in industrial activities (a process that enables to simultaneously recover the energy and recycle the mineral content of the waste in an industrial product) and would otherwise be landfilled or incinerated.
Other, please specify (Fit for 55 Package)	Support	Holcim engages both directly and indirectly with representatives of the EU institutions on what probably forms the most significant legislative package of the current European Commission. Holcim welcomes the "Fit for 55" package released by the European Commission on 14th July. If elements of the package bring a risk element (increase carbon costs), this package is mostly about providing policy enablers that should in principle allow us to build the necessary business case to deploy low carbon technologies and solutions.	The CBAM is one such example. Much of the detail remains to be confirmed through the legislative process and these major legislative initiatives must be phased-in without creating legislative or financial shocks (see below for a more detailed view on CBAM). The reform of the EU ETS is another important part of the package and forms a complex exercise that has many interlinked components. The mechanisms of free allocation must work in parallel with the proposed CBAM, at least in a transitional period. Innovative financing mechanisms for low carbon technologies are necessary in today's environment and an EU-driven CCfD (carbon contract for a difference) scheme is welcome.

**C12.3b**

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

Yes

**C12.3c**

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

**Trade association**

Cembureau

**Is your position on climate change consistent with theirs?**

Consistent



**Please explain the trade association's position**

Low-carbon manufacturing: The cement industry will continue to invest in the transition to a low-carbon economy. As an energy intensive industry committed to this low-carbon transition, it is essential to maintain the competitiveness of Europe-based manufacturing and ability to invest in Europe. Given The sector's contribution to jobs, growth and innovation in Europe, its track record on energy and resource efficiency and emissions reductions achieved, it is of key importance that the sector has access to competitively priced, carbon-neutral energy on the road to a low carbon economy. A value chain approach: Transitioning to a low-carbon economy is a significant challenge for the EU and the cement sector. Concrete is one of the most long-lasting and durable materials on earth, and EU policies need to acknowledge its contribution to a low carbon transition through the entire life-cycle of buildings. Today's concrete buildings can save up to two-thirds more energy than older structures. Thermally-activated concrete can ensure a better match between energy demand and supply from fluctuating energy sources. Concrete can naturally absorb CO2 in a process called re-carbonisation. Concrete could potentially offset a considerable proportion of production emissions over its life-cycle. The low-carbon transition in the built environment will require a supply chain approach that allows for collaboration across the construction value chain. This can be achieved by focusing on a holistic implementation of material-neutral and life cycle performance, incentivising demand for low-carbon materials and solutions.

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

In 2020 we contributed to the development of the Cembureau's agenda on climate change through active participation in management meetings. Holcim representatives lead the work on standardization for GHG reporting, and are active in 4 working bodies whose main focus is Climate Change. In 2021, the country CEO of Holcim in Spain, was appointed Cembureau's new President.

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**Trade association**

International Emission Trading Association (IETA)

**Is your position on climate change consistent with theirs?**

Consistent

**Please explain the trade association's position**

The International Emission Trading Association deals with regulators, NGOs and external stakeholders to promote the use of ETS systems, to improve the way they work and ensure fungibility and comparability of different carbon systems.

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

Holcim has an active role in the development of IETA agenda; and Holcim representatives are members of several working groups.

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**Trade association**

Zürich Carbon Markets Association (ZCMA)

**Is your position on climate change consistent with theirs?**

Consistent

**Please explain the trade association's position**

The ZCMA provides a network for knowledge sharing for all organisations that are interested in the evolution of sustainability focused and high quality carbon markets with the aim to mitigate greenhouse gas emissions.

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

Holcim has representation actively driving the ZCMA's program of activities.

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**Trade association**

Global Cement and Concrete Association

**Is your position on climate change consistent with theirs?**

Consistent

**Please explain the trade association's position**

The GCCA (Global Cement and Concrete Association) supports the development of national industry roadmaps to define the potential to reduce carbon emissions from the cement industry and the transition to a low carbon economy. Through the GCCA (previously the Cement Sustainability Initiative), the sector has worked together with the International Energy Association on a Technology roadmap consistent with limiting the average global temperature increase to 2 degrees. This roadmap sets out a key strategy for the cement sector to achieve decoupling of expected cement production growth from related direct CO2 emissions. This roadmap sets the pathway for the industry to reduce its emissions by 24% from current levels, despite the anticipated increased production by 2050.

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

Holcim was a founder member of the GCCA and has an active role in the development of the GCCA's agenda. Holcim champions various focus areas on Climate and Energy and Monitoring and reporting. Holcim CEO Jan Jenisch is on the board of the GCCA and EXCO member Miljan Gutovic is on the steering committee. In addition, Holcim subsidiaries are participating in the Low Carbon Technologies Partnership. The use of the roadmap is the first step to developing climate regulations, setting targets for emissions reduction, financed with national resources and reduction financed with international funds.

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**Trade association**

The European Round Table of Industrialists (ERT)

**Is your position on climate change consistent with theirs?**

Consistent

**Please explain the trade association's position**

To reduce CO2 emissions, binding commitments by the developed countries and Nationally Appropriate Mitigation Actions (NAMAs) of developing countries along with robust measurement, reporting and verification (MRV) are necessary to underpin actions and provide clear signals for investment. All governments should be encouraged to develop national, regional and sector based greenhouse gas emission reduction plans including CO2 pricing mechanisms. ERT continues to support the development of carbon markets as the approach that can deliver CO2 reductions at the lowest cost. Industry is a source of sustainable solutions and must be involved in the decision-making and implementation of the various mechanisms and repository of tools that could be used in multilateral and bilateral agreements which may emerge from the on-going negotiations. In particular, industry input should be sought for the development of the framework on the technology mechanism and on the financing of NAMAs through the Green Climate Fund. ERT highlights that Europe is part of a global market and we need to find ways to keep Europe growing while limiting our carbon footprint and increasing energy efficiency. Climate change is foremost a global challenge and the EU should keep convincing other regions to make similar commitments and putting in place policies such as carbon pricing to reach the objectives. Further information on the ERT's position on climate change is available online at <http://www.ert.eu/issue/climate-change>.

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

Holcim is an active participant to the climate and energy working group and plays a leading role in the development of forward-looking engagement on the low-carbon transition.

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## C12.3d

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### (C12.3d) Do you publicly disclose a list of all research organizations that you fund?

Yes

## C12.3f

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### (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?

Updates on advocacy initiatives supporting our climate change strategy are regularly presented to our main governing bodies, Board of Directors and the Executive Committee.

At regional levels, representative groups of CEOs and functional managers regularly meet and exchange on the latest regulatory developments and activities influencing policy, and newsletters on the topic are distributed. Local initiatives are also circulated for potential replication within the group. Regional positions (e.g. reform of EU ETS) are developed with the involvement of all legal entities in the regions, as well as all relevant company departments (such as climate protection, carbon trading and public affairs). All positions are systematically validated by regional leadership teams and consistent with global positions to ensure alignment and consistency.

At Group level, the Group Public Affairs department is responsible for the coordination of advocacy actions within Holcim and holds direct and specific responsibility for climate change related issues. The Public Affairs function ensures alignment on climate policy positions in all parts of the company by sharing on a regular basis position papers and by engaging with the internal lobbying and advocacy network through calls, webinars and newsletters. Positions on policy issues are validated by the relevant internal experts (sustainability, waste management, finance, innovation, etc.) and made available to the Public Affairs community across the Group.

CCEOs and employees that are active in trade associations that we are members of or associated with are systematically engaging in a way that reflects Holcim's climate positions and ambitions. Holcim works to ensure that the positions of these organisations are aligned to its own but it also works in full respect of the governance rules in place in all trade associations. Should major divergences in position appear, Holcim will dissociate itself from the trade association's position and related activities, or in extreme cases, renounce its mandates within the organisation and/or its membership.

As such, it ensures that the Group's long-term interests – in line with broader societal interests – are consistent, and taken into account by public authorities.

## C12.4

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### (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

Holcim\_Sustainability\_Performance\_Report\_2020\_EN.pdf

Holcim\_fy\_2020\_report-full-en.pdf

#### Page/Section reference

i) Integrated Annual Report 2020: Governance: page 81 Strategy: pages 54-66 Emission targets: 59 Other metrics: pages 60-65 Risk & Opportunities: page 98-113 ii) Sustainability Performance Report 2020: Governance: page 2 Strategy: page 3 Emission targets: pages 4-8 Emission figures: pages 4-8

#### Content elements

Governance

Strategy

Risks & opportunities

Emissions figures

Emission targets

Other metrics

#### Comment

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## C15. Signoff

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### C-FI

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

C15.1

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

	Job title	Corresponding job category
Row 1	Chief Financial Officer	Chief Financial Officer (CFO)

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission
I am submitting my response	Investors Customers	Public

Please confirm below

I have read and accept the applicable Terms