

C0. Introduction

C0.1

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

CEMEX, S.A.B. de C.V. is a publicly traded stock corporation with variable capital, or sociedad anónima bursátil de capital variable, organized under the laws of Mexico, with its headquarters located at Avenida Ricardo Margáin Zozaya #325, Colonia Valle del Campestre, San Pedro Garza García, Nuevo León, 66265, Mexico. CEMEX’s main phone number is +52 81 8888-8888. CEMEX, S.A.B. de C.V. was founded in 1906 and was registered with the Mercantile Section of the Public Registry of Property and Commerce in Monterrey, Nuevo León, Mexico, on June 11, 1920 for a period of 99 years. At our 2002 ordinary general shareholders’ meeting, this period was extended to the year 2100 and in 2015 this period changed to be indefinite. Beginning April 2006, CEMEX’s full legal and commercial name is CEMEX, Sociedad Anónima Bursátil de Capital Variable. CEMEX is one of the largest cement companies in the world, based on annual installed cement production capacity as of December 31, 2019, of approximately 93 million tons. CEMEX is the second largest ready-mix concrete company in the world with annual sales volumes of approximately 50 million cubic meters and one of the largest aggregates companies in the world with annual sales volumes of approximately 135 million tons, in each case, based on our annual sales volumes in 2019. CEMEX is also one of the world’s largest traders of cement and clinker. CEMEX, S.A.B. de C.V. is an operating and holding company engaged, directly or indirectly, through its operating subsidiaries, primarily in the production, distribution, marketing and sale of cement, ready-mix concrete, aggregates, clinker and other construction materials throughout the world, and that provides reliable construction-related services to customers and communities in more than 50 countries throughout the world, and maintains business relationships in over 100 countries worldwide. CEMEX operates globally, with operations in Mexico, the United States, Europe, South America, Central America, the Caribbean, Asia, the Middle East and Africa. CEMEX had total assets of approximately US\$29 billion as of December 31, 2019. As of December 31, 2019, CEMEX’s cement production facilities were in Mexico, the United States, the United Kingdom, Germany, Spain, Poland, Czech Republic, Croatia, Colombia, Panama, Costa Rica, the Dominican Republic, Puerto Rico, Nicaragua, Trinidad and Tobago, Jamaica, Barbados, Egypt, and the Philippines. CEMEX has a rich history of improving the well-being of those it serves through innovative building solutions, efficiency advancements, and efforts to promote a sustainable future.

C0.2

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

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	January 1 2019	December 31 2019	No	<Not Applicable>

C0.3

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

- Barbados
- Colombia
- Costa Rica
- Croatia
- Czechia
- Dominican Republic
- Egypt
- France
- Germany
- Guatemala
- Israel
- Jamaica
- Mexico
- Nicaragua
- Panama
- Philippines
- Poland
- Puerto Rico
- Spain
- Trinidad and Tobago
- United Arab Emirates
- United Kingdom of Great Britain and Northern Ireland
- United States of America

C0.4

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

USD

C0.5

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

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
- 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 Sustainability Committee is responsible for ensuring sustainable development in our strategy; supporting our Board of Directors in fulfilling its responsibility to shareholders regarding sustainable growth; evaluating the effectiveness of sustainability programs and initiatives; providing assistance to our Chief Executive Officer and senior management team regarding the strategic direction on sustainability; and endorsing our model of sustainability, priorities, and key indicators. This explicitly includes all topics related to climate change and CO2 emissions. The Sustainability Committee is made of four Directors on the Board. An example of the type of decisions made by the Sustainability Committee is the validation, resources approval and follow up of the "CO2 Reduction roadmap" developed for each cement site to model and assess the carbon mitigation potential that can be seized from each installation considering different factors. Advancements on the Roadmap, as well as in the implementation of CEMEX's CO2 Strategy, business plans and performance are reviewed by the committee in each of the meetings as a fixed topic in the agenda.

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	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding annual budgets Reviewing and guiding business plans Setting performance objectives Monitoring implementation and performance of objectives Overseeing major capital expenditures, acquisitions and divestitures Monitoring and overseeing progress against goals and targets for addressing climate-related issues	<Not Applicable>	The Sustainability Committee pursues CEMEX has board-level oversight on Climate Change and CO2 Management Strategy. The Committee meets four times a year and is normally briefed by the Corporate Director Sustainability or the Executive VP for Sustainability and Operational Development. This includes in-depth reviews of particular topics which are planned in advance (at the end of the previous year) as well as unforeseen recent developments that are considered material enough to be brought to the Board's attention or require guidance from the Sustainability Committee. In 2018, CEMEX developed a CO2 Reduction Roadmap launched across all our cement sites to model and assess the carbon mitigation potential that can be seized from each installation considering different factors; advancements on the Roadmap, as well as in the implementation of CEMEX's CO2 Strategy, business plans and performance are reviewed by the committee in each of the meetings as a fixed topic in the agenda. Besides, in 2019 the scheduled agenda for the Sustainability Committee meetings included the following topics that are also related to climate change: CEMEX's 2019 Integrated Report Structure and Content Sustainability KPI's Annual Performance and Improvement Plan Global and Regional Sustainability Risks Agenda Update Climate Change Strategy and CO2 Management The enriching Sustainability Committee discussions led to valuable outcomes related with climate-change, as the launching of the Sustainability Scorecard in 2018 to closely monitor performance of all countries in core KPIs and ensure progress towards our global objectives, and the CEMEX CO2 Reduction Roadmap by cement installation

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 (Executive Vicepresident Sustainability, Commercial and Operations Development)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly

C1.2a

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

The Executive Vice-president Sustainability, Commercial and Operations Development is a position in the Executive Committee to oversee the areas of:

- Sustainability
- Operations & Technology
- Energy
- R&D & IP Management
- Health & Safety
- Procurement
- Commercial
- Digital Marketing

The Executive Vicepresident Sustainability, Commercial and Operations Development reports directly to the CEO of the company. The sustainability function was assigned to this EVP because this Vice Presidency oversees all cross-functions of the company (all business and all departments) and manages directly sustainability topics which are embedded in all organization, together with the rest of the above-mentioned functions.

The responsibilities with respect to climate change include:

- Monitoring of the company's performance in terms of CO2 emissions and related KPIs
- Monitoring of the company's CO2 Roadmap implementation and resources assurance for the execution of the reduction initiatives and presentation to the ExCo/Board for approval.
- Assessment of climate-related risks and opportunities (responsible for climate-related topics in integrated risk assessment)
- Preparation of targets and initiatives for approval by ExCo / Board
- Implementation of approved targets and initiatives

C1.3

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

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	CEMEX has established a consistent set of internal targets for specific net CO2 emissions (kg CO2/ton of cementitious product) at global, regional, national and plant level. These targets are a mandatory part of the yearly evaluation for the CEO, Executive Committee members (regional level), Country Managers (business unit level), and some other functions (e.g. corporate sustainability, Global Operations and Technology).

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
Chief Executive Officer (CEO)	Monetary reward	Emissions reduction project Emissions reduction target	Variable compensation is linked to achievement of targets. One of these targets is the achievement of a global CO2 reduction target for the year in question that is in line with a credible pathway towards reaching our publicly stated long-term target.
Other C-Suite Officer	Monetary reward	Emissions reduction project Emissions reduction target	Variable compensation is linked to achievement of targets. One of these targets is the achievement of a global CO2 reduction target for the year in question that is in line with a credible pathway towards reaching our publicly stated long-term target. These targets are implemented for the Executive VP of Sustainability and Operations Development (global target) and the regional presidents in the ExCo (with region-specific targets).
Business unit manager	Monetary reward	Emissions reduction project Emissions reduction target Energy reduction project Energy reduction target	Variable compensation for all our country presidents is linked to achievement of targets. One of these targets is the achievement of country-specific CO2 reduction target for the year in question that is in line with a credible pathway towards reaching our publicly stated long-term target.
Corporate executive team	Monetary reward	Emissions reduction project Emissions reduction target	
Environment/Sustainability manager	Monetary reward	Emissions reduction project Emissions reduction target Energy reduction project Energy reduction target	
Energy manager	Monetary reward	Emissions reduction project Emissions reduction target Energy reduction project Energy reduction target	
Risk manager	Monetary reward	Emissions reduction project Emissions reduction target	
Procurement manager	Monetary reward	Environmental criteria included in purchases Supply chain engagement	

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	Please note these definitions of short, medium and long term only apply to this questionnaire, particularly our assessment of risks and opportunities, and should not be used for interpreting any other CEMEX communication.
Medium-term	3	6	Please note these definitions of short, medium and long term only apply to this questionnaire, particularly our assessment of risks and opportunities, and should not be used for interpreting any other CEMEX communication.
Long-term	6	35	Please note these definitions of short, medium and long term only apply to this questionnaire, particularly our assessment of risks and opportunities, and should not be used for interpreting any other CEMEX communication.

C2.1b

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

CEMEX identifies and calculates the impact of every financial or strategic risk, but defines as a "substantive impact" any impact that:

- Affects to at least 15% of our business unit, regardless of its financial or strategic impact.
- OR affects a whole Region, regardless of its financial or strategic impact.
- OR, regardless of the number of business units affected, the financial or strategic impact is higher than 1% over the the total expected yearly EBITDA results within a 10 year period or threaten its competitiveness.
- OR, the impact is higher than 5% over the specific expected EBITDA of a business unit within a 10 year period or threaten its competitiveness.
- OR, customer or communities concerns increase in an specific area (the incidents and concerns are monitored in a daily basis and as soon as the frequency of registry increase it is monitored to evaluate its financial or strategic impact; it is classified as substantive as soon as the EBITDA)
- OR, as per shareholder or Executive Committee request.

C2.2

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

Value chain stage(s) covered

Direct operations
Upstream
Downstream

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term
Medium-term
Long-term

Description of process

CEMEX' Enterprise Risk Management (ERM) system is a network of more than 35 risk management professionals around the world. This includes some corporate risk management specialists that do the assessment in collaboration with regional, national personnel as well as specialists for five key topics (including sustainability, which in turn includes climate change). The sustainability specialist in the network focuses on regulatory and other (such as reputational or market) risks, whereas physical risks related to climate change (e.g. increased probability of flooding, potential interruptions of the supply chain) are covered by regional and local representatives. In addition the sustainability expert in the ERM network is collaborating with regional and local sustainability staff for the monitoring and analysis of corresponding developments. The company's risk agenda is formally updated at least twice a year and it follows a bottom-up approach (plant-country-region-corporate). However, all contributors (direct and indirect) constantly monitor the evolution of important topics (regulatory, scientific and other developments) and changes that are identified as material will trigger an immediate adjustment. For example, regional experts are constantly following legislative developments related to CO2 and meeting in a quarterly basis to share their progress, analyzing potential impacts for CEMEX, and immediately reporting any material changes (such as new emission taxes or important adjustments to emissions trading systems) to the ERM network and Corporate Sustainability. The identification and assessing of the climate-related risks and opportunities scope compress the full value chain, mainly the direct operations but also upstream, where supplies are monitored to evaluate any potential risk of lack or price increase and downstream, where the logistics and market is monitored to identify and evaluate any potential risk in the market (customer behaviour changes to adapt the portfolio, logistics to deliver our products...). Identification and assessing of the climate-related risks and opportunities are analysed in a short, medium and long term time horizon. An example of how the described process is applied to a transitional risk: the most important transitional risk identified is the transition to a new or update of the carbon regulation. 1) Situation: Sustainability and ERM monitor the status of each country in regards to carbon regulation, having different situations: some countries are already regulated and the regulation will evolve in the short-term (i.e. EU and California), in some other countries there is a short-term plan to implement a new carbon regulation (i.e. Mexico) and there are some countries with no short-term risk, but a med or long-term is consider. 2) Task: first the financial impact of the transitional risk is evaluated in terms of CO2 and cost, and the goal is to minimize this impact. 3) Action: the action taken has been the development of the cement site-by-site plan "CEMEX CO2 Roadmap", to identifying and listing all the carbon reduction initiatives specific for each site regardless of a carbon regulation in place. The plan has to be tracked and the resources ensure for full implementation. 4) Result: the result of the action is that, after the implementation of all the identified initiatives, the financial impact can be significantly reduced to close to -20%. An example of how the described process is applied to a physical risk: an example of a physical risk identified is the increase of extreme storm events that can disrupt supply of crucial inputs. 1) Situation: Increased frequency and strength of tropical cyclones (as well as other extreme storms) can cause disruption of the supply of our operations. ERM selects those operations with higher probability of a extreme event to happen, based in mainly historical events derived from climate change patterns (within the scope for example SCAC (South Central America & Caribbean) - Dominican Republic, Colombia and Puerto Rico). 2) Task: first the financial impact of the transitional risk is evaluated and the goal is to minimize this impact. 3) Action: to manage this risk ERM takes a structured and homogeneous approach worldwide by implementing a so called "Business Continuity Program" (BCP) to minimize the potential impact of a disruptive event in our businesses. Under the scope of the BCP a Business Recovery plan is implemented in each identified site, and it the continuity and recovery of operations to keep fulfilling our commitments to our clients by improving operational resiliency and returning to business as usual. ERM develop recovery strategies for PREPSI (People, Resources, Equipment, Premises, Suppliers and Information). The loss of PREPSI is considered in two stages: Operational continuity (by temporary continue providing the goods or services agreed upon with customers) and Return to business as usual (recovering business back to normal levels of operation). The risk management includes for example policy revisions, like inventory increase. 4) Result: the result of the implementation of BCP and Business Recovery plan is the reduction of the impact of an extreme event, as we increase the recovery time of the affected operation by, for instance, increasing the supplies inventories or identifying a backup supply. Additionally, we are in the process of reviewing the COSO-WBCSD guideline on "Applying enterprise risk management to environmental, social and governance-related risks" to enrich our process and our strategy for identification and assessment of our climate-related risks and opportunities.

C2.2a

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

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	A number of CEMEX operations are currently subject to climate change-related legislation, including emissions trading systems (European Union, California) and taxes (e.g. Colombia, México...). Given the significant implications that even small changes to e.g. free allocation to our operations or overall scarcity of allowances can have it is paramount for CEMEX to follow closely current developments and adjust our risk adjustment and strategy accordingly. EXAMPLE of Risk Type: Carbon tax on just liquid and gas (coal and petcoke are excluded) fossil fuels in Colombia, already affecting our operational cost, mainly related to transport. The same happens with the current regulation in Mexico, where all fossil fuels, excluding Natural Gas, are taxed, so this taxation is directly affecting our operational cost.
Emerging regulation	Relevant, always included	CEMEX fully supports the implementation of the Paris Agreement and collaborates with governments around the world to define and implement Nationally Determined Contributions (NDCs). In a quarterly basis, the CEMEX "CO2 Regulation Focus Group", comprised of PA, Operations and Sustainability members in each Region, share the insights from this collaboration with governments and identify any risk in emerging regulations. EXAMPLE of Risk Type: Te trial period for the New ETS in Mexico has already started with a planned duration of 3-years, and it will have a noticeable impact on our operations. We are in close collaboration to Governments (through CANACEM (Mexican Cement Association)) on the revision of the new ETS regulation during its trial period. The same exercise was made for all countries in SCA&C Region; carbon tax regulation vs. ETS has been analyzed in terms of emissions and economic impact of each scenario, and we evaluate the impact of the potential ETS implementation in Colombia in the next 2-years. Additionally, in Colombia, a new tax on petcoke and coal is being analyzed and expected to be in place starting in 2021.
Technology	Relevant, always included	Technology is the key lever for CEMEX to significantly reduce its CO2 footprint in the long run. CEMEX is involved in new R&D products (such as our proprietary low-CO2 clinker) and other new technologies projects on Carbon Capture. CEMEX has a R&D department evaluating and assessing new climate-change technologies (proprietary or external), and a dedicated multidisciplinary team to evaluate new technologies in the market. CEMEX usually works under the H2020 EU scheme and new EU Innovation Fund, and is also collaborating with NPC in USA in Carbon Capture, Utilization and Storage (CCUS) technologies, which can help us to manage transition risks. The technology is considered a risk in some installation where not implementing new technologies could result in a non-profitable operation. EXAMPLE of Risk Type: for instance, CEMEX is involved in the design & development stage of EU funded projects like LEILAC project, GENESIS, EcoCO2...and California and Texas plants requested in June2020 two DOE funds to execute a feasibility study on Carbon Capture.
Legal	Relevant, always included	Although we are currently not subject to any climate change-related litigation, the increasingly attention and commitment of governments to comply with NDC will evolve in a more robust legislation and compliance surveillance, so increase in litigation or penalties risk. CEMEX Central Legal department is monitoring in a quarterly basis all "Regulatory Matters and Legal Proceedings" applicable to our company, including all those related to climate change. EXAMPLE of risk type: Water scarcity in some areas where we operate is one example on how the legal proceedings and regulatory matters are included in the quarterly revision. The control from the legal perspective is the strict compliance of each water withdrawal permit, to avoid any disturbance in the water layer and a potential legal action derived from it. Another example of legal risk is every time more demanding enhanced emissions-reporting obligations and more demanding air emissions limits; we are analysing this risk as a potential emerging regulation and from the legal perspective in case of not meeting the new revised limits.
Market	Relevant, always included	The main impact on markets is likely to happen via regulation. The impact of market developments that are not driven by regulation is likely to be rather small in the short term, and changes are expected to occur very slowly. Nonetheless CEMEX has identified this as a key topic in the long run as it has the potential to reshape the industry, and is integrating it in its CO2 strategy. Types of market trends that are likely to become relevant in the long term include demand for low-carbon products or products for better energy efficiency of buildings, as it is now being pursued for instance in the EU Taxonomy. Low carbon products or high efficiency products demand is closely monitored by our commercial department, and our R&D in constant research of innovative solutions. EXAMPLE of risk type: the low-carbon product demand trend is assessed and crossed with R&D development to adapt our facilities to the expected demand (i.e. lightweight concrete, fiber reinforced...) and also linked to building solutions obligations imposed by regulations (i.e. adaptation of existing buildings to energy efficiency obligations in a local/country basis)
Reputation	Relevant, always included	For the time being the key reputation risks are related to our investors, but in the future it cannot be ruled out that also customers will increasingly base their purchasing decisions on our reputation. CEMEX is in constant exchange with its stakeholders to understand their views and expectations. This risk is monitored in a regular and coordinated basis by PA, Sustainability and Investor relationships. The most important channels in the context of climate change are: - regular stakeholder surveys evaluating our image and materiality matrix - dialogue with the investment community (e.g. institutional investors, financial and sustainability analysts) - review of external reports by e.g. NGOs, authorities, or media EXAMPLE of type of risk: An example of this kind of reputation risk is "the perception" the markets could have of the cement sector, as it is seen as a big contributor to CO2 global emissions, so this could affect our sales (risk) but also create some opportunities (need to extend the new low carbon products portfolio). We are monitoring in our risk assessment this potential risk, identifying the customer needs through the constant exchange with them, and this allows us to quickly identify this "lack of confidence" in our product, and constantly monitoring the press releases related to give the proper answer and take the correct actions. Additionally, we are actively participating in those cement associations of the locations where we are present, so we also discuss reputation risk and take actions accordingly (response to media). All these sources are considered when including the reputation risk and its consequences in sales in the risk-assessment process.
Acute physical	Relevant, always included	The assessment of acute physical climate risks, mainly extreme weather events such as tropical cyclones, is a constant task in our ERM system. This includes both the updating of local emergency plans as well as the collaboration with the insurer to understand the potential changes in insured risks. EXAMPLE of risk type: All areas with natural-disaster high occurrence probability are identified and the impacts are assessed in terms of production losses and reconstruction cost
Chronic physical	Relevant, always included	CEMEX operates a number of terminals and also plants directly on the sea chronic physical risks such as rising sea levels, so this physical risk could become a long-term problem for the company. Another example of chronic physical risk being monitored is the water scarcity in the areas where we operate, to ensure the operation continuity. EXAMPLE of risk type. To assess the impact of the water scarcity chronic physical risk, we evaluate the cost increase associated to other water sources or production losses. To mitigate the impact, we set a new target in 2018 to update our water scarcity map (Aqueduct tool) and update the water management plants in all those facilities with severe or high-water scarcity (applicable for all businesses)

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

Current 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

CEMEX supports carbon pricing, particularly in the form of cap-and-trade, as the most effective and efficient means to combat climate change. However, it is very important that a pricing system is well designed, maintaining the fair competition preserving both, the industry and the climate effects if a carbon-leakage occurs; competition does not

refer only to regulated and unregulated geographies, but also among potential substitute products (e.g. concrete vs. asphalt, timber or steel). To evaluate the risk of the transition to a carbon pricing regulation we evaluate and prioritize those Regions/Countries with a regulation already in place that will certainly evolve to a next phase/taxation scheme, or those with an announce new regulation in the short-term: 1. California (1 cement plant within the scope) - Already an ETS in force and designing the final rules or the new allocation period 2. All EU cement Operations (Spain (7 operations), UK (considering potential Brexit effects in two operations), Germany (1 operation), Czech Republic (1 Operation), Croatia (1 Operation), Poland (2 Operations) 3. Colombia: tax on liquid and gas fossil fuels, with a potential risk evaluated of solid fossil fuels taxation (petcoke or coal). 4. México: tax on fuels in place, and with a known transition to and ETS in the short term as the trial period of the ETS already started in 2020 (3-years). We also include a potential carbon tax in Nuevo Leon state (affecting Monterrey plant) over the total CO2 emissions of the plant. Other geographies are monitored in a quarterly basis in the "CO2 Regulation focus Group" meetings, to determine their middle term impact (i.e Egypt: working with Low Emission Capacity Building (LECB) Project to evaluate the best carbon taxation scheme, other countries in SCA&C region evolving to comply with the committed NDC (Panama, Caribbean, Costa Rica))

Time horizon

Short-term

Likelihood

Likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

329379000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Totals provided are indicative of the financial implications up to 2030 of all the expected changes in regulations; the following are considered: 1. EU ETS Phase IV, where most of the new allocation rules are now known, although benchmark and dynamic allocation rules are still being defined; we would have to purchase a large amount of EUAs to run our operations in the corresponding countries. UK is also evaluated separately taking into account the proposal after Brexit already published (EUA price: 30 USD/t) // 2. California Market, where the new Phase rules are being finalized (CCA carbon price floor average (2021-2030): 26.7 USD/t) // 3. Colombia, an additional tax on solid fossil fuels is likely to be in place in the short term (Expected tax on coal: 13.8 USD/t) // 4. Mexican ETS is in its trial stage since Jan 2020, but no financial effect is included here yet (although different scenarios have been evaluated to evaluate the risk). For Mexico we include a potential carbon tax for CO2 emissions being analyzed in Nuevo Leon (impacting Monterrey plant), with 15 USD/t of CO2 applied to the total CO2 emissions in the plant. A quantitative breakdown of the financial impact figure is provided next: 1. EU ETS financial impact = (Expected balance of Phase IV (2021-2030) - Surplus Phase III (2013-2020)) * 30 USD CO2/t (please note that balance Phase IV and Surplus Phase III are confidential information and cannot be disclosed) 2. California ETS = (Expected balance of Phase IV (2021-2030) - Surplus Phase III) * 30 USD CO2/t (please note that balance Phase IV and Surplus Phase III are confidential information and cannot be disclosed) 3. Colombia risk on a carbon tax on pet-coke = Expected petcoke consumption within a 10-year timeframe * 13.8 USD CO2/t (please note that petcoke consumption is confidential information and cannot be disclosed) 4. Mexico risk on a carbon tax on CO2 emissions in Nuevo Leon (Monterrey plant) = Expected CO2 emissions within a 10-year timeframe * 15 USD CO2/t (please note that Monterrey plant emissions is confidential information and cannot be disclosed) The financial impact figure = 329,379,000 = 1 (EU) + 2 (Cal) + 3 (Col) + 4 (Mex)

Cost of response to risk

132768000

Description of response and explanation of cost calculation

In order to mitigate the impact of increasing the operating cost derived from strengthen the GHG (CO2) regulation and increase the GHG pricing, CEMEX monitors its balance of allowances (Balance (surplus/deficit) = free allocation in EU minus emissions), that it is directly impacting in our production cost. We are managing the risk as follows: 1. Specifically for the ETS systems (EU & California) the strategy is to keep the allowances surplus in current phase to cover deficit in the coming Phase IV // 2. In Feb18 CEMEX started a cement site-by-site plan, "CEMEX CO2 Roadmap", to identifying and listing all reduction initiatives, specific for each site regardless of a carbon regulation in place. The EU plan was completed in Feb19 (124 initiatives identified), and the rest of the plans were completed in Nov2019. Identified initiatives include: switch to AF (biomass) or natural gas, clinker substitutes, decarbonated raw materials, energy efficiency... CEMEX is also actively participating in the development of CCU (Carbon Capture Utilization) tech. as a long-term solution, in an open and constant dialogue with policy makers. Cost of management calculation: is equal to the needed investments identified already at cement site level. An example of the already identified cost includes investments to upgrading existing installations to feed AF to calciner or main burner (mainly in SCAC (South Central Am. & Caribb), Mexico, USA and Philip), and local de-carbonated raw materials (paper ash in several EU operations). Additionally a FTE for lobbying actions is included as a mitigation cost. A quantitative breakdown of the cost of response to risk is provided next: Cost to response = Identified investment for the short-term (38,645,000 USD) + Identified investment for the medium-term (93,923,000 USD) = 132,768,000 USD

Comment

The cost of management is equal to the needed investments already identified at cement site level. An example of the already identified cost includes investments to upgrading existing installations to feed AF to calciner or main burner (mainly in SCAC (South Central Am. & Caribb), Mexico, USA and Philip), and local de-carbonated raw materials (paper ash in several EU operations). Additionally a FTE for lobbying actions is included as a management cost. A quantitative breakdown of the cost of response to risk is provided next: Cost to response = Identified investment for the short-term (38,645,000 USD) + Identified investment for the medium-term (93,923,000 USD) = 132,768,000 USD

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

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

Increased frequency and strength of tropical cyclones (as well as other extreme storms) can cause direct damage to our operations. The operations considered within the scope of this physical risk are selected based in mainly historical events derived from climate change patterns; within the scope we have operations in SCAC (South Central America & Caribbean) like Dominican Republic, Colombia and Puerto Rico, Mexico gulf, the US gulf coast, and southeast Asia (Philippines). This risk specifically monitored the potential physical damage caused in the assets by extremely weather events. To identify and manage this physical risk (mainly for disruptive risks) taking a structured and homogeneous approach worldwide, CEMEX ERM (Enterprise Risk Management) launched in 2017 a so called "Business Continuity Program" (BCP), to minimize the potential impact of a disruptive event in our businesses. This program includes Emergency Support, Crisis Management and Business Recovery (details on management). Having a BCP in order has the following benefits: It reduces the recovery time after a disruptive event // It reduces the potential impact of a disruptive event // It promotes positive engagement with stakeholders in advance (staff, customers, suppliers) // It allows to anticipate and prepare for possible consequences // Beyond risk mitigation, BC can turn a crisis into an opportunity // Aligns internal efforts towards the same recovery direction or goal.

Time horizon

Long-term

Likelihood

More likely than not

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

4960000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

A common event of hurricane, typhoon and flooding may be in the order of 300-500 kUSD of physical damage, although higher damage in the million USD range has been observed. Please note that indirect effects (e.g. reduced production volumes) may be significantly higher than the physical damage to the assets, but this is not covered within the scope of this risk. To assess the estimated financial impact, we are including these operations mapped as high-probability of extremely weather events occurrence (3 kiln operations in the Philippines, 2.2 Operations in México (0.2 offices), Puerto Rico operation, Dominican Republic, 4 Operations in Colombia and 1.2 Operations in the US gulf). Risks are mitigated on a case-by-case basis through the implementation of the BCP (Business Continuity Program); in this case a damage cost of around 400 KUSD is estimated for each operation. A quantitative breakdown of the financial impact figure is provided next: 1. Facilities considered in Philippines = 3 * 400,000 USD/facility = 1,200,000 USD 2. Facilities considered in Colombia = 4 * 400,000 USD/facility = 1,600,000 USD 3. Facilities considered in Puerto Rico = 1 * 400,000 USD/facility = 400,000 USD 4. Facilities considered in Dominicana = 1 * 400,000 USD/facility = 400,000 USD 5. Facilities considered in US Gulf = 1.2 * 400,000 USD/facility = 480,000 USD 6. Facilities considered in Mex = 2.2 * 400,000 USD/facility = 880,000 USD Total financial impact = 1 + 2 + 3 + 4 + 5 + 6 = 4,960,000 USD

Cost of response to risk

31004000

Description of response and explanation of cost calculation

The management of this risk is done in a structured approach worldwide at site by site level with the so called "Business Continuity Program". Under this program all sites should have a RRT (Rapid Response Team) in place locally. Additionally, CEMEX assesses annually all plants' exposure to weather related risks also through the LPP (Loss-Prevention Program). This program is conducted by the engineering services of CEMEX's global property insurer (FM Global) and provides each plant with a grade score by which all plants can be assessed. All recommendations from the LPP are evaluated for decision making using three criteria: 1. Financial loss expectancy should the risk occur, 2. Risk improvement ratios defined as the ratio of loss expectancy to the cost to complete the recommendation to mitigate or avoid the risk exposure, and 3. Specific catastrophe risks. Example of a BCP in place: Apo plant - The RRT is comprised of the Plant Director / Production Manager / Health&Safety officer (plant & quarry) / Security coord / Oper. superintendent / Quality Control coord / Quarry Leader / Supply Chain coord. Unfortunately, the RRT in Apo had to act in Sept18 when a landslide occurs due to downpour rains (natural Phenomenon). Cost of management calculation: the shown figure is the fee of the insurance provider in 2019. Note that the insurance mentioned here covers a wide range of physical risks, not only those related to climate change (detailed estimates are not available). A quantitative breakdown of the cost of response to risk is provided next: Cost of insurance provider 2019= 31,004,000 USD * 1 global insurance = 31,004,000 USD

Comment

Cost of management is the fee to the insurance provider in 2019. Please note that the insurance mentioned here covers a wide range of physical risks, not only those related to climate change; detailed estimates for the latter are not available. A quantitative breakdown of the cost of response to risk is provided next: Cost of insurance provider 2019= 31,004,000 USD * 1 global insurance = 31,004,000 USD

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Downstream

Risk type & Primary climate-related risk driver

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

Extreme storm events can disrupt supply of crucial inputs; for example, in 2005, one of the most active hurricane seasons on record, hurricanes forced some major refineries on the US Gulf Coast to stop operation; as a consequence, supply of petcoke, the main fuel for many of our cement plants, was disrupted, jeopardizing the operation of some of CEMEX' plants in Mexico and the US. As recent scientific studies have fuelled the debate on whether global warming will lead to more frequent and stronger tropical cyclones we have classified the likelihood as "about as likely as not".

Time horizon

Medium-term

Likelihood

About as likely as not

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

204360000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

To assess the estimated financial impact, all these operations mapped as high-probability of extremely weather events occurrence are included (2 Operations in the Philippines (3 kilns in operation)), 2.2 Operations in México (0.2 offices), Puerto Rico operation, Dominican Republic, 4 Operations in Colombia and 1.2 Operations in the US gulf). To calculate the potential loss of production, we estimate 4 months of production disruption and the EBITDA associated to these sites. A quantitative breakdown of the financial impact figure is provided next (please note that EBITDA by country cannot be disclosed): 1. Philippines' cement annual EBITDA 2019 / 12 months * 4 months 2. Colombia's cement annual EBITDA 2019 / 12 months * 4 months 3. Puerto Rico's cement annual EBITDA 2019 / 12 months * 4 months 4. Dominicana's cement annual EBITDA 2019 / 12 months * 4 months 5. US Gulf cement facility's (1 cement facility) annual EBITDA 2019 (1 cement facility) / 12 months * 4 months 6. Mexico Gulf cement facilities (2,2 cement facilities) annual EBITDA 2019 / 12 months * 4 months Total financial impact = 1 + 2 + 3 + 4 + 5 + 6 = 204,360,000 USD

Cost of response to risk

0

Description of response and explanation of cost calculation

This risk is managed within the scope of the ERM process (dealing with the causes of a risk to prevent its materialization) and also covered within the scope of the Business Continuity Program (BCP) (risk2). This kind of risk management includes higher building construction standards, but also policy revisions, like inventory increase policies. An example of this risk management, under the scope of the BCP, is the implementation of the Business Recovery plan, which ensures the continuity and recovery of operations to keep fulfilling our commitments to our clients by improving operational resiliency and returning to business as usual. We develop recovery strategies for PREPSI (People, Resources, Equipment, Premises, Suppliers and Information). The loss of PREPSI is considered in two stages: Operational continuity (by temporary continue providing the goods or services agreed upon with customers) and Return to business as usual (recovering business back to normal levels of operation). Example of the BCP: Unfortunately, we had to run the Business Recovery Plan in the Philippines in September 2018 after a landslide in the limestone quarry due to a "natural phenomenon" (downpour rains), preserving the business continuity and managing the crisis with all related parties and stakeholders Cost of management calculation (quantitative): These activities are included as part of existing operational policies and do not cause material additional costs, that is why the estimated cost is "zero". The policies to prevent supplies disruption already in place to manage this risk are: the inventory policy (stock management), supply management policy (alternative supplies), building construction standards for our facilities... the cost of the implementation of these policies is part of all the plants' operational and working capital cost, so the cost is accounted as zero as it does not cause any additional cost.

Comment

Cost of management calculation (quantitative): These activities are included as part of existing operational policies and do not cause material additional costs, that is why the estimated cost is "zero". The policies to prevent supplies disruption already in place to manage this risk are: the inventory policy (stock management), supply management policy (alternative supplies), building construction standards for our facilities... the cost of the implementation of these policies is part of all the plants' operational and working capital cost, so the cost is accounted as zero as it does not cause any additional cost.

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 of climate adaptation, resilience and insurance risk solutions

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

Experts predict that extreme weather events, such as flooding, sea-level rises and natural disasters, will make unprecedented demands on society. This will necessitate the urgent construction of secure new buildings and infrastructure. Concrete, a cement-based material, has a key role to play in helping society adapt and face the impacts of climate change in an affordable way. Concrete products can help combat and prevent the detrimental consequences of climate change by protecting people, property and

the environment. Being a robust and versatile material to build resilient infrastructure, concrete can provide the level of climate proofing that will become mandatory as national building codes are revised to cope with more extreme weather events. Additionally, there are other cost savings related to resilient infrastructure: According to the National Institute of Building Sciences, every dollar spent on resilient building and construction can save six dollars in recovery costs. It is very likely to have the opportunity of increasing the demand of concrete products to adapt the buildings and infrastructure to expected climate change effects, and we are working in training and promoting concrete as the most resilient and durable construction solution, mainly in markets where we consider that effects are affecting and will affect the most, like the Southern US, Latin America, and south-east Asia.

Time horizon

Long-term

Likelihood

More likely than not

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

12920000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

The financial impact is estimated considering an increase of 2% in the demand of concrete (and the corresponding increase in cement according its average dosing for m3) due to the need of adapting buildings and infrastructure to climate change effects and a dosing to concrete of 350 kg of cement per m3. The increase of revenue coming from this 2% increase in demand is calculated for those Regions considered as more likely to be impacted, as their infrastructure is currently less adapted and the climate change effects are more likely to occur: Southern US, Latin America (Mexico, SCAC (South Central America and Caribbean)) and south-east Asia. Figures are showing annual expected revenues increase. A quantitative breakdown of the financial impact figure is provided next (please note that EBITDA by plant/Region cannot be disclosed) (Sum Concrete's EBITDA (SCAC + Mexico + Philippines + South USA) * 2% (increase)) + (Sum Cement's EBITDA (SCAC + Mexico + Philippines + South USA) * 0.350 kg cem/m3 concrete * 2% (increase)) = 12,920,000 USD

Cost to realize opportunity

0

Strategy to realize opportunity and explanation of cost calculation

Together with GCCA (global level) and other associations at Regional level we are promoting the benefits of the concrete solutions to combat the effects of climate change. Concrete plays a critical role in making cities sustainable and resilient, as it is the most durable and disaster-resistant among all construction materials. CEMEX believes that factoring resilience into a building's design can help to reduce lifetime repair and maintenance costs in hazard-prone areas and enable communities to recover more quickly from a disaster. Our products and innovative technologies support in the development of energy efficient buildings, resilient infrastructure, and affordable housing. For instance, Pervia concrete is a structural pervious concrete that can manage water permeation to offer drainage solutions for pavements and prevent major consequence of pouring rains. Beyond resilient structures, city planners are constantly challenged to provide ways to efficiently and affordably house rapidly growing urban populations. We integrate design, products, and wall systems into housing solutions that are flexible and replicable (disaster relief, energy-efficiency and affordable housing). Cost to realize the opportunity calculation: The cost to realize this opportunity is already part of our ongoing lobbying and technical-commercial advisory, together with the R&D activities cost that is also an ongoing cost, that is why the shown figure is zero; the R&D activities cost is part of our operational cost already, so no additional cost is estimated, and the same happens with the technical-commercial advisory, that is already part of our structural cost, together with the lobbying actions (Public Affairs and Investor Relations staff, who are part of our structural cost), that is why these activities are estimated as zero additional cost.

Comment

The cost to realize this opportunity is not significant, as it is part of our ongoing lobbying and technical-commercial advisory, together with the R&D activities cost that is also an ongoing cost, that is why the shown figure is zero; the R&D activities cost is part of our operational cost already, so no additional cost is estimates, and the same happens with the technical-commercial advisory, that is already part of our structural cost, together with the lobbying actions (Public Affairs and Investor Relations staff) who are part of our structural cost, that is why these activities are estimated as zero additional cost.

Identifier

Opp2

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 through access to new and emerging markets

Company-specific description

A number of studies have concluded that buildings are responsible for around 40% of global energy consumption and a similar percentage of GHG emissions. It is therefore crucial that the energy efficiency of buildings be improved, and the most likely way to achieve this is via more stringent energy efficiency standards for buildings. This will open several opportunities for CEMEX: - Significantly lowering total energy consumption of buildings and helping to design the "sustainable cities of the future", will most likely require an increased replacement or refurbishment of existing buildings, which means more construction activity. - It is widely recognized that concrete's thermal properties make it an excellent structural material for energy-efficient buildings in both cold and hot climates, implying that under more stringent efficiency standards the consumption of concrete per unit is likely to increase. - More stringent building codes are likely to foster the development of new materials and constructive solutions; this will give innovative companies like CEMEX a competitive edge and will allow for higher margins on these already existing and new higher performance products being developed. A very specific example was showcased on the British TV program Grand Designs; it is the Corrigall "Concrete House", which exemplifies the spirit of collaboration between our R&D, customers, architects, and engineers that CEMEX is always pursuing. The objective was to minimize, if not eliminate, conventional steel reinforcement while achieving very high thermal efficiency. Using CEMEX Resilia ultra-high strength and CEMEX hyper ductile fiber-reinforced concrete, the outcome was the first building in the UK where steel reinforcement was reduced by 75%, embodying a 39% reduction of CO2 in the concrete structure or the equivalent of 120 tCO2. Our Insularis concrete technology was also used to achieve high thermal insulation, reducing the structure's thermal bridges and its overall energy consumption by 17%.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

11512000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

A French study ("Carbon Constrained Scenarios" by FONDDRI, http://www.iddri.org/Publications/Rapports-and-briefing-papers/08_Fondri_summary-for-industrial-decision-makers.pdf) finds that demand for cement in 2050 would increase by 4.5% to 16% compared to BAU in scenarios of massive decarbonization of the economy, and energy efficiency in buildings has been identified as one of the major drivers for this increase. Calculations are done considering an increase of demand of 15% for this "high-energy-efficient" portfolio of products (7% of total concrete sales in 2019 related to this energy efficient products portfolio). A quantitative breakdown of the financial impact figure is provided next (Revenue 2019 of Energy Efficient Products * 15% annual increase in sales) = 11,512,000 USD

Cost to realize opportunity

500000

Strategy to realize opportunity and explanation of cost calculation

In our public and institutional relations efforts, we highlight the large and relatively low-cost potential for emission reductions in the building sector, e.g. in position papers, marketing materials, but also in direct interaction with political and other decision makers. CEMEX performs R&D projects by detecting first the future needs and challenges of the society; to detect the future needs and evaluate existing and emerging technologies, we work with the "Tech Intelligence Program", comprised of 52 CEMEX members of different disciplines gathered to collaborate evaluating "technology alerts" (emerging or already developed) and a survey is done to collect their impressions on the technology. Another example is the partnering with ICF Performance to deploy the THERMOFORM® solution in France, a next-generation insulated shuttering system with very high thermal performance, combining the high performance of polystyrene and concrete. Another example is our new U.S. headquarters, earning LEED Gold Certificate, including 52% power reduction for the building. Cost to realize the opportunity: The cost of developing a new high-energy-efficiency product will depend on a number of circumstances and it is already part of our R&D activities. On the top of this, there are expenses for e.g. certification and market introduction that are typically higher than the actual development cost. The estimated cost is related to the extra cost of development and market penetration of a new product that is estimated as 500,000 annual USD = new product marketing campaign 200,000 USD + deployment 300,000 USD

Comment

The cost of developing a new high-energy-efficiency products will depend on a number of circumstances and it is already part of our R&D activities. On the top of this, there are expenses for e.g. certification and market introduction that are typically higher than the actual development cost. The estimated cost is related to the extra cost of development and market penetration of a new product, that is estimated as 500,000 annual USD = new product marketing campaign 200,000 USD + deployment 300,000 USD

Identifier

Opp3

Where in the value chain does the opportunity occur?

Upstream

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

The importance of our sector in the waste hierarchy is vital, and to position our sector as an important contributor to this waste hierarchy is one of our aims. In 2019, the EU Waste Directive Framework update includes the circular economy concept in all the related regulations. European Commission (EC) aims to highlight technically feasible options and improve the potential of Waste-to-Energy operations in the EU, and co-processing of waste in the cement industry is one of the options. Additionally, EC aims to the administrations to put in place economic instruments and other measures to provide incentives for the application of the waste hierarchy, such as landfill charges and restrictions, so prices of the RDF are expected to decrease. We realize that the benefits of co-processing (switching from conventional fossil fuels to Alternative Fuels, mainly RDF (Refuse Derived Fuels) are sometimes not widely understood in our areas of influence, especially in other Regions like Latin America, Asia and some areas in the USA. The primary advantage of AF utilisation in cement kilns is that waste material content is recycled into final product, bringing together both energy recovery and material recycling (which is one step higher on the waste hierarchy), and allowing not to have residual bottom ash produced from the waste incineration process, as it is integrated in the final product. The opportunity is for both, the environment and the potential economic opportunity if regulation is fulfilled equally, as imposing taxes and restrictions to landfills is one of the economical instruments proposed by the EU Commission, so at least a slight reduction in the Alternative Fuels cost is expected, mainly for RDF. CEMEX is demonstrating its contribution to the circular economy with its results: CEMEX has become a "waste eater" and in 2019 we consumed 31 times more residues from other sectors than the amount of waste we generated and sent for disposal. The best example to demonstrate that the compliance of the waste hierarchy (within the framework of the waste directive) is a very important lever to reach a good performance in %AF (Alternative Fuels) substitution rate, is our own results: Countries like Germany, where the waste directive and its economic instruments is fully implemented, and where our substitution rates have exceeded 75%-80% within the last 5 years

Time horizon

Long-term

Likelihood

More likely than not

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

6485000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

As the potential impact identified is to reduce the exposure to future fossil fuel price increase through the switching from fossil fuels to alternative fuels (AF), the financial impact figure shown is calculated assuming that we will have an average saving of 3 USD/Gcal (comparing Gcal fossil fuel cost vs. Gcal AF cost) and for an increase of a 5% of the total thermal substitution of all the cement operations worldwide in a year (financial impact is a yearly saving). A quantitative breakdown of the financial impact figure is provided next: Total Thermal Gcal consumption 2019 in cement kilns (43 millions of Gcal) * 5% improvement * (3 USD/Gcal (price difference AF vs. Primary fuel) = 6,485,000 USD

Cost to realize opportunity

400000

Strategy to realize opportunity and explanation of cost calculation

The identified opportunity is to use lower-emissions sources of energy We started to develop several contacts to the local/Regional/National and European administration, directly or in collaboration with Cembureau, to promote the implementation of the waste hierarchy stated in the EU Waste Directive (Directive 2008/98/EC_ Modified by Directive 2018/851). The same approach is being taking in other Regions, were the benefits of co-processing are also being promoted mainly with communities and local and regional governments. The cost to implement this initiative in the medium-term worldwide is the cost of the lobbying actions to implement the waste hierarchy promoted by the EU Waste Directive in all Regions. Quantitative breakdown of the cost to realize the opportunity = estimated cost of the lobbying actions equivalent to 200 annual lobbying hours * 40 USD/hour * 50 lobbying resources around the world = 400,000 USD/year

Comment

The cost to implement this initiative in the middle term worldwide is the cost of the lobbying actions to implement the waste hierarchy promoted by the EU Waste Directive. Quantitative breakdown of the cost to realize the opportunity = estimated cost of the lobbying actions equivalent to 200 annual lobbying hours * 40 USD/hour * 50 lobbying resources around the world = 400,000 USD/year

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

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

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

Yes, qualitative and quantitative

C3.1b

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

Climate-related scenarios and models applied	Details
2DS RCP 4.5 RCP 6 Other, please specify (B2DS-ETP2017)	The climate-related scenario analysis used by CEMEX is the 2DS as a central scenario, in accordance with the sectorial approach published by a joint effort IEA-CSI Cement Low-Carbon Technology Roadmap in 2018 (based on ETP 2015 for all the industry using SDA methodology) and updated this year to the ETP2016. Other scenarios considered include both more restrictive (2DS_ETP 2017 and B2DS - ETP 2017, the latter compatible with Well-Below 2°C Scenario) and less regulated (RCP 4.5, RCP 6.0) scenarios. The geographical scope of the scenarios is global, and the time horizon the year 2050. CEMEX target 2030 is aligned with this 2DS calculations_ETP2016. The five scenarios used are complemented by a concise and consistent narrative that details some of the open topics such as regulatory framework, physical risks, public opinion and particularly the corresponding indicative price of carbon emissions; the latter is informed by official sources (e.g. the IEA ECP scenarios). In all scenarios the potential implications for CEMEX are analyzed in a qualitative and quantitative way (Best Estimate). In the area of the physical impacts of climate change the analysis discusses both risks for our assets as well as potential risks and opportunities in our markets; in the area of transitional risks the focus is very much on the consequences of climate change-related legislation, including margin effects, volume effects, stranded assets, and the profitability of R&D into low-carbon processes and products. The main results of the analysis are: - Transitional risks and opportunities are far more relevant for CEMEX than physical ones; - The more CO2 emissions are constrained the more relevant are transitional risks; - Transitional risks are not a challenge for the sector (defined as production of mineral binders, not necessary as traditional Portland cement) as a whole (because of a lack of suitable substitutes), but in most scenarios will play a decisive role for the competitiveness of individual companies within the sector - although the profitability of R&D into low-carbon solutions is highest in the most carbon-constrained scenarios, they are still attractive in the least constrained one - Particularly in the most constrained scenarios the need to develop new business models becomes apparent The results of this analysis confirm that CEMEX' carbon strategy is in general robust. It underlines the need to integrate further emission reduction options that go beyond the traditional levers (energy efficiency, alternative fuels, and clinker substitutes). These results feed directly into the further evolution of our carbon strategy and targets. As a consequence of the scenario analysis - our new long-term CO2 target will most likely go beyond what can be achieved with traditional levers, - R&D into non-traditional emission reduction options will be further strengthened; for example, the development and roll-out of our new low-carbon clinker (that shows an emission reduction of over 15% compared to traditional Portland cement clinker) was sped up mainly in Mexico and Spain. The scenario analysis has not resulted in additional monitoring activities as the existing monitoring processes for CO2 emissions and other KPIs related to climate are considered adequate. The results of the analysis have been reported to the Corporate Sustainability Director, the Executive VP for Sustainability and Operations Development, the Executive Committee and the Board.

C3.1d

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

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	Climate-related risks and mainly opportunities have already adapted our short-term strategy to commercialize products that support the low-carbon transition and value-added products globally, but specially in EU. Cement and concrete already provide a number of characteristics that are important for a low-carbon transition, such as longevity, resistance, wide availability etc. In fact, most technologies and other solutions currently debated will rely to an important degree on concrete. Nonetheless there is still a significant potential for further developments to e.g. improve the insulating properties of concrete, further increase its strength, or to implement smart functions to increase maintenance intervals and technical lifetimes. As one of the industry leaders CEMEX will continue to be at the forefront of these developments with the help of our R&D department. So, our portfolio is adapting to the new demand, and the demand of products with sustainability attributes (like energy efficiency, resource efficiency, low CO2 footprint) has been increasing in the last 5Y by doubling their demand, and we plan to increase an additional 15% in the med-long term period. An example of this adaptation is Vertua, a range of products with low or neutral CO2 footprint developed by R&D in 2019 and launched to the market in early 2020 in UK, and extended already to France in June 2020.
Supply chain and/or value chain	Yes	Climate Change plays an increasingly important role in the selection of suppliers, particularly for electrical energy impacting our short and medium-term strategy. As a result we have been reducing our scope 2 emissions for more than a decade by sourcing electricity from renewable sources, getting a 30% of our cement operations electricity consumption coming from renewable sources in 2019; the most prominent example was the development of the Eurus and Ventika I and II wind farms in Mexico with a combined capacity of more than 500 MW. In 2018 we reinforce our commitment by setting a target of 40% of the electricity coming from renewable in cement in 2030. Additionally, in 2019, 100% of our UK electricity is coming from renewable sources and from 2020 on, we provide 100% of renewable electricity to two operations in Poland. Regarding downstream services, within the same short and med-term time-frame, CEMEX provides different Green Building Certification Services, like eco-perating building certification, urban development consultancy, green building certification, bio-climatic architecture, energy efficient engineering together with sustainable materials and solutions development. During 2019 we also provided products and solutions for more than 1,000 projects that aim to achieve LEED or BREAM certifications, representing close to 7 million m2 of construction space. Additionally, CEMEX is aware of the fact that the challenge of climate change requires collaboration at a number of levels. We are working with stakeholders, particularly governments and authorities, to develop frameworks that allow society to effectively and efficiently transition to a low-carbon world and to adapt to those consequences of climate change that cannot be avoided any more. CEMEX is building a better future, enabling the development of durable infrastructure with quality products and construction practices with reduced environmental impact. Our products and innovative technologies support in the development of energy efficient buildings, resilient infrastructure, and affordable housing, thus contributing to UN SDG 11 (Sustainable Cities and Communities). To reinforce this commitment across the full value chain, we continue working with Supplier Sustainability Program for critical suppliers, by setting an internal target to measure the share of spend assessed under this program.
Investment in R&D	Yes	CEMEX committed to deliver Net-Zero CO2 concrete in 2050, so the R&D investment is a key player in our short, med and long term strategy for all our cement and concrete operations worldwide. According different studies, like the IEA-CSI Technology Roadmap 2018, the Cembureau Roadmap 2050, one of the major contributors to our emissions reduction from 2030 on will be the capture and subsequent storage or utilization of CO2 emitted from our processes, including concrete re-carbonation (capacity to naturally absorb CO2 during concrete's lifetime or through accelerated carbonation), so CEMEX is committed to R&D in this field with its participation in different consortiums in EU and US. Additionally, there is also a need to research into non-traditional operating levers, like for example the development and roll-out of our new low-carbon clinker (that shows an emission reduction of over 15% compared to traditional Portland cement clinker) was sped up mainly in Mexico, SCAC and Europe. The role and relevance of our R&D department based in Switzerland is now essential, as well as the participation of CEMEX Ventures in the research of low-carbon solutions offered by companies and start-ups, that CEMEX analyze to participate in.
Operations	Yes	Starting in 2018 with the European operations, and extended in 2019 to all the operations worldwide, CEMEX is adapting to the climate-related risk and opportunities all the operations in a short and medium-term time horizon. We developed a detailed roadmap site by site with specific actions to achieve our 2030 target, by implementing different technical measures like increasing the use of AF, particularly biomass, upgrading inefficient kilns like the new kiln in Poland started up in 2019, increasing the use of clinker substitutes or changing portfolio products to more added cements mainly in SCAC (South-Central America and Caribbean), México and and US, where the swap to Type I-L cements is being deployed in 2019-2020. We also adopted some organizational measures such as awareness raising, monitoring and reporting of emissions, and extensive use of our proprietary carbon footprint tool. To reinforce this commitment, all the operation are set an annual emissions reduction goal linked to their remuneration.

C3.1e

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

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Direct costs Indirect costs Capital expenditures Capital allocation Acquisitions and divestments Access to capital	<p>Revenues are mainly affected by the increase in sales expected for the new low carbon, resilient and low carbon products. We are already having an impact in the revenues, however we notice that, as soon as the customer understands the magnitude and importance of having a lower carbon footprint, and of the life cycle assessment of a product, the opportunity will be even higher, and our R&D have to be constantly adapting to the customer and society needs. To factor these opportunities into our financial planning process, we consider a medium magnitude of these type of products, and we estimate the sales increase expected annually and calculate the associated revenues. Magnitude: medium. The magnitude of the impact on sale has been so far around a 0.5%, that is still very low, but we expect a medium impact in the middle term and a medium-high impact in the long term, impacting 100% of our business units. The operating cost (direct and indirect) is already being impacted by changes in regulations that increase operating production cost mainly in EU cement operations and California. We include this operating cost increase effect within the OCF (Operating Cash Flow) forecast in the short term (5 Year Business Plan) and moreover, considering the OCF impact in the middle term by simulating the already known rules of the Phase IV (in EU and California) and also the mitigation actions we are carrying out to reduce the impact (CO2 Roadmap). Another impact in the financial planning is the Alternative Fuels strategy when the price lowers or is expected to lower. We find new Alternative Fuels opportunities in very specific areas (UK) with a 5% of cost decrease compared to previous contracts. The impact of this lever is still low, and it is just affecting to some EU operations (mainly UK and Poland), but we are including the potential effect in the middle term financial planning process (5 Year Business Plan, that is updated annually the minimum, and every time a relevant change arise) Capital allocation and expenditures have an important role for all identified risks and all identified opportunities, so it is factored within our financial planning process with a high impact (magnitude). While climate change-related risks and opportunities are relevant for all kinds of capital, the main areas where they factor into the CEMEX planning process are the following: - Financial capital: systematic consideration of costs induced by GHG regulation (e.g. taxes, cost for purchase of allowances) in the evaluation of investment projects; general stress testing of our mid-term financial planning by applying an internal carbon price of USD 30 per metric tonne of CO2 and a sensitivity analysis with different prices to evaluate the robustness of the investment. - Human Capital: Increasingly stronger focus on climate change-related topics, e.g. R&D into low-carbon technologies and products; further development of climate management and related processes; investigation of the life-cycle impact of our products and services; transparent communication around the company's carbon strategy, performance, and advantages of our products and services - Natural Capital: evaluation of mineral deposits for raw materials for low-carbon products; evaluation of projects to grow biomass as alternative fuel All climate-related risks and opportunities are systematically integrated into the evaluation of acquisitions and divestments. The results will certainly depend on the size of the transaction but may range from low impact to being a substantial part of the overall value; as a systematic approach, the climate related risk is always considered in our acquisition and divestment planning process and factored within a high impact (magnitude). For instance, we announced the temporary closing of two operations in Spain in 2018 and one in UK in 2020, and one of the drivers to take this decision was the higher specific emissions of these operations (we cannot disclose more detailed information), so the production cost increase expected there in the long term (risk evaluation). Example of the impact is that our climate change/low carbon investment increased by more than 25%, and it is planned to increase much more in the coming years, as we planned in our "CO2 Roadmap". The access to capital is an opportunity that is already impacting our operations with a medium impact (magnitude), and we are foreseen a potential to become a high impact risk. Investors, particularly institutional investors, increasingly consider climate-related risks and opportunities in the evaluation of their portfolios, and CEMEX maintains an open and transparent dialogue with all interested investors and informs them about the company's strategy and performance. For instance, we are in the process of analyzing with a financial institution a "sustainability linked-loan". Additionally, we get subsidies in the context of the EU "Innovation Funds" to support our new technologies R&D (H2020) and we applied too to DOE (US) funding for innovation.</p>

C3.1f

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

The climate change strategy is fully embedded and integrated in our business strategy and in our business objectives. Regarding objectives, and as part of the revision of our strategy, we published in 2020 (2019 Integrated Report) a new target for 2030, to reduce 35% our net CO2 emissions per cementitious products vs. 1990, together with some other targets for circular economy, renewable energy, water rationale usage, other emissions to air and forestry and biodiversity care (carbon sinks)...

The process to integrate the climate-related risk and opportunities into our business strategy and financial planning:

i. PROCESS

The Corporate Director Sustainability is responsible for coordinating the process of developing and updating the company's Climate Change strategy. The basic strategy was developed based on a thorough analysis of both internal (e.g. mitigation potential) and external (e.g. regulatory developments and market trends) circumstances, and it is revisited for a potential update every quarter. By the developing of a cement site-by-site roadmap to identify all CO2 reduction initiatives for each site, regardless of a carbon regulation in place we reinforced this strategy. All CEMEX operations and key corporate VPs are represented in this process.

Additionally, the Corporate Director Sustainability is supported by the "CO2 Regulation Focus Group", analysing internal (e.g. progress towards our emission target) and external (e.g. regulatory developments) factors and proposing changes to the strategy (all geographies are represented). All the outcomes of this climate change strategy revision are discussed with the ExCo and the Sustainability Committee (Board Level) before they are signed off by the CEO.

ii. MAIN ASPECTS OF CLIMATE CHANGE

The predominant aspects are regulation triggered by climate change policies, e.g. carbon taxes or cap and trade, and our voluntary carbon target. However, other aspects such as reputation and consumer behaviour have an increasing importance, particularly for identifying and seizing opportunities.

iii. SHORT-TERM STRATEGY

Particularly the regulatory risks have triggered additional efforts to improve our carbon balance by:

- Technical measures (increased use of AF, particularly biomass; upgrade inefficient kilns; increased use of clinker substitutes)
- Development of offset projects, particularly in our electricity supply chain, and sourcing low-carbon electricity and green fleet vehicles
- Organizational measures such as awareness raising, monitoring and reporting of emissions, implementation of carbon footprint tool

iv. LONG-TERM STRATEGY

In our long-term strategy the following elements are directly related to climate change; even more than the short-term strategic impacts they are driven by a number of opportunities:

- Commitment to an emissions reduction goal and subsequently other goals to support this commitment (e.g. percentage of alternative fuels)
- Increased focus on the life-cycle emissions of our products: In order to minimize the GHG emissions from the built environment one has to do an integrated assessment of emissions over the full life cycle of buildings and structures
- Other efforts in this field include: Communication of the life-cycle advantages of our products / Development of new value-added products / Promotion of energy efficiency to local communities, customers, and vendors / Sponsorship of contests to promote sustainable and innovative building designs, such as the annual CEMEX Building Awards in the U.S.

v. STRATEGIC ADVANTAGE

The short-term measures create a direct and measurable impact; reductions in EU countries or in offset projects translate directly into cost advantages and/or additional revenues. Our focus on life-cycle emissions allows us to offer products with superior value for our clients and to communicate this advantage in the market place. In addition to those advantages that are directly related to climate change many of the actions have positive side benefits such as a stabilization of our energy costs.

vi. BUSINESS DECISIONS

Some of the key decisions include:

- Development of a proprietary "Carbon Footprint methodology and tool" for our main businesses (cement, aggregates, and ready-mix concrete) the results of which are regularly communicated to our stakeholders. Using this tool we can provide customers with the CO2 footprint of each one of the products we supply to them, so they in turn can calculate the CO2 footprint of their construction projects
- In 2019, we have developed new challenging targets for a number of climate change-related KPIs. We believe that making the transition from waste management to circular economy is essential to reach a truly sustainable, low-carbon, resource-efficient, and competitive economy. CEMEX has become a "waste eater" and in 2019 we consumed 31 times more residues from other sectors than the amount of waste we generated and sent for disposal. This is precisely the rationale behind our 2030 vision (Total consumption of waste-derived sources) as an active contributor to a global circular economy. In 2019 we reached an alternative fuels substitution rate of 28%, the highest in the past four years.
- In each of the last years a number of decisions to invest in energy efficiency, renewable energy, clinker substitutes, or alternative fuels have been triggered by our Climate Change strategy and our voluntary goal to reduce emissions. To reinforce this commitment, in 2018 we set a new target for 2030 to reach a level of 40% of power consumption coming from renewable sources in our cement operations.
- Climate Change plays and increasingly important role in the selection of suppliers, particularly for electrical energy. Again, to reinforce this commitment, we continue working with Supplier Sustainability Program for critical suppliers, by setting a new internal target to measure the share of spend assessed under this program.
- CEMEX also provides different Green Building Certification Services, like ecoperating building certification, urban development consultancy, green building certification, bioclimatic architecture, energy efficient engineering together with sustainable materials and solutions development. During 2019 we also provided products and solutions for more than 850 projects that aim to achieve LEED or BREAM certifications, representing more than 5 million m2 of construction space.

C4. Targets and performance

C4.1

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

Intensity target

C4.1b

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

Target reference number

Int 1

Year target was set

2018

Target coverage

Business division

Scope(s) (or Scope 3 category)

Scope 1+2 (market-based)

Location-based is also monitored

Intensity metric

Metric tons CO₂e per metric ton of product

Base year

1990

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

0.87

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

99

Target year

2030

Targeted reduction from base year (%)

35

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

0.5655

% change anticipated in absolute Scope 1+2 emissions

-15

% change anticipated in absolute Scope 3 emissions

0

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

0.677

% of target achieved [auto-calculated]

63.3825944170772

Target status in reporting year

Revised

Is this a science-based target?

Yes, we consider this a science-based target, but this target has not been approved as science-based by the Science Based Targets initiative

Please explain (including target coverage)

Target covers only emissions from our cement operations. Other operations (concrete, aggregates, asphalt) are not covered by the target but make up approximately 1% of our combined scope 1+2 emissions. Latest calculations indicate that reductions in specific emissions will offset growth in demand for our products.

C4.2

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

Target(s) to increase low-carbon energy consumption or production

Other climate-related target(s)

C4.2a

(C4.2a) Provide details of your target(s) to increase low-carbon energy consumption or production.

Target reference number

Low 1

Year target was set

2018

Target coverage

Business division

Target type: absolute or intensity

Intensity

Target type: energy carrier

Electricity

Target type: activity

Consumption

Target type: energy source

Renewable energy source(s) only

Metric (target numerator if reporting an intensity target)

Percentage

Target denominator (intensity targets only)

megawatt hour (MWh)

Base year

2018

Figure or percentage in base year

26

Target year

2030

Figure or percentage in target year

40

Figure or percentage in reporting year

30

% of target achieved [auto-calculated]

28.5714285714286

Target status in reporting year

Underway

Is this target part of an emissions target?

Yes, the consumption of energy from renewable sources decrease the company's CO2 indirect emissions.

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

Please explain (including target coverage)

Amount of power consumed from renewable energy in cement plants (in kWh). KPI Numerator: Amount of power consumed from renewable energy in cement plants (in kWh). Denominator: Total power consumption in cement plants (in kWh). Target covers all our cement operations worldwide. 2030 Target: 40%; 2019: 30% The consumption of energy from renewable sources decrease the company's CO2 indirect emissions.

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

2018

Target coverage

Business division

Target type: absolute or intensity

Absolute

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

Waste management	Other, please specify (Total consumption of waste-derived sources from other industries (million ton))
------------------	--

Target denominator (intensity targets only)

<Not Applicable>

Base year

2018

Figure or percentage in base year

13.23

Target year

2030

Figure or percentage in target year

19

Figure or percentage in reporting year

13.387

% of target achieved [auto-calculated]

2.7209705372617

Target status in reporting year

Underway

Is this target part of an emissions target?

This is part of our emissions intensity target to reduce our kgCO2 emissions per ton of cementitious product a 35% vs. 1990 for cement, but it also consider the waste-derived sources from other industries consumed in our concrete division

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

Please explain (including target coverage)

The scope is the cement and concrete division and it aims to increase our consumption of waste-derived sources from other industries in absolute value; it includes alternative fuels and cementitious materials consumed in cement and concrete as well as alternative raw materials consumed in raw meal (raw material to produce clinker)

Target reference number

Oth 2

Year target was set

2018

Target coverage

Company-wide

Target type: absolute or intensity

Intensity

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

Land use change	Other, please specify (% active quarries with quarry rehabilitation plans, Biodiversity Action Plans (BAPs), and third party certification (% active target quarries for each KPI))
-----------------	---

Target denominator (intensity targets only)

Other, please specify (Total number of active quarries in the scope of rehabilitation plans, BAPs and 3th party verification)

Base year

2018

Figure or percentage in base year

65

Target year

2030

Figure or percentage in target year

100

Figure or percentage in reporting year

72

% of target achieved [auto-calculated]

20

Target status in reporting year

Underway

Is this target part of an emissions target?

It is indirectly related as we are planning to account for all the emissions balance with our habitat restoration activities vs. disturbed land (hectareas)

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

Please explain (including target coverage)

The quarries targeted are all owned or controlled active quarries in the company (cement and aggregates). We are planning to implement a restoration/rehabilitation plan in 100% of our active quarries, a Biodiversity Action Plan in all quarries overlapped with high biodiversity value areas and a 3rd party verification in those quarries not overlapped with high biodiversity value areas and with a social or economic impact.

Target reference number

Oth 3

Year target was set

2018

Target coverage

Company-wide

Target type: absolute or intensity

Intensity

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

Engagement with suppliers	Other, please specify (Sustainability assessment executed by an independent party for our critical suppliers (% spend))
---------------------------	---

Target denominator (intensity targets only)

Other, please specify (% critical suppliers' spend)

Base year

2018

Figure or percentage in base year

44

Target year

2030

Figure or percentage in target year

80

Figure or percentage in reporting year

44

% of target achieved [auto-calculated]

0

Target status in reporting year

Underway

Is this target part of an emissions target?

It is indirectly related

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

Please explain (including target coverage)

Since 2010, we have been rolling out CEMEX Supplier Sustainability Program, an effort that extends our commitment to sustainable practices and policies to our business partners through an evaluation executed by a specialized independent firm, including criteria such as Health & Safety, Community Relations, Human Rights, Employee Development and Diversity, and Environmental Compliance (including climate-related topics), among others. As part of our Sustainability 2030 Ambitions, we have decided to refine our former supplier assessment focus and our new plan is to assess at least 80% of the critical suppliers spend under our company's global procurement scope. By critical we refer to those business partners who can have significant impact on our three core businesses (cement, ready-mix concrete, and aggregates). Specifically, this involves those who could affect the continuity of our operations, involve environmental risks, and/or contribute the highest spend. At year end we have evaluated 44% of the total procurement spend.

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	59	1295000
To be implemented*	19	356000
Implementation commenced*	1	296000
Implemented*	22	285000
Not to be implemented	0	0

C4.3b

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

Initiative category & Initiative type

Energy efficiency in production processes	Fuel switch
---	-------------

Estimated annual CO2e savings (metric tonnes CO2e)

155000

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

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

17097000

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

11153000

Payback period

<1 year

Estimated lifetime of the initiative

Ongoing

Comment

Fuel Switch: Alternative Fuel projects to increase percentage of substitution by displacing fossil primary fuels. Alternative fuels in our kilns to reduce scope 1 emissions. 12 new projects were completed along 2019 (3 in Spain, 1 in UK, 1 in Czech Republic, 1 Germany, 1 Poland, 2 in México, 1 in Colombia, 1 in Panama, 1 in Jamaica). The shown figures represent annual savings.

Initiative category & Initiative type

Energy efficiency in production processes	Other, please specify (Novel clinker (Low Temperature clinker and Low CO2 clinker))
---	---

Estimated annual CO2e savings (metric tonnes CO2e)

33000

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

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

1269000

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

335000

Payback period

<1 year

Estimated lifetime of the initiative

Ongoing

Comment

Production of clinker by changing composition of the raw meal mix to reduce clinkerization temperature, so to reduce the demand of Heat Specific consumption to produce clinker. Initiatives were implemented in 2019 in 3 cement plants in Spain. Figures are annual savings

Initiative category & Initiative type

Energy efficiency in production processes	Product or service design
---	---------------------------

Estimated annual CO2e savings (metric tonnes CO2e)

60000

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

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

1217000

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

661000

Payback period

<1 year

Estimated lifetime of the initiative

Ongoing

Comment

Initiatives to reduce the clinker content in cement by including cementitious. In 2019 we implemented 6 new initiatives, all in SCAC (South Central America and Caribbean) in 2 plants in Colombia, one in Dominican Republic, 1 in Nicaragua and 1 in Guatemala. Additionally there is an initiative in Assiut plant to swap most of our cement portfolio to blended cements that has been partially implemented along 2019 but it is not included yet in the implemented initiatives as it is still ongoing in 2020 (it has been classified as "implementation commenced"). Saving figures are annual

Initiative category & Initiative type

Estimated annual CO2e savings (metric tonnes CO2e)

37000

Scope(s)

Scope 2 (location-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

3-5 years

Comment

In late 2018, but impacting the full 2019, UK signed a new PPA to get access to 100% renewable power with green certificates. This reduced our emissions 37000 tons of CO2. The investments figures are not provided as it was not required

C4.3c

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

Method	Comment
Compliance with regulatory requirements/standards	This includes compliance with emissions trading schemes such as the EU ETS
Financial optimization calculations	These integrate the price of carbon induced by emissions trading schemes and offset programs.
Other	Best practice sharing: CEMEX shares the success stories in the official meetings (CO2 Regulation Focus Group, Meeting Sustainability Regional Coordinations, Environmental Experts meetings) and CEMEX business units share success stories via intranet tools (teams platform).
Partnering with governments on technology development	CEMEX constantly participates in a number of R+D projects that are partly funded by governments; many of these projects are related to emission reduction technologies.
Internal incentives/recognition programs	CEMEX sets targets not only for emission intensity, but also for individual key levers such as the percentage of low-carbon alternative fuels in our overall fuel portfolio. Additionally, we created in 2018 a recognition mechanism, recognizing two categories in the sustainability KPI: the best mover (best improvement) and the champion in each category (including climate change related targets (specific emissions per ton of cementitious, %AF, %clinker factor...))
Dedicated budget for low-carbon product R&D	There is a specific budget dedicated for low-carbon-products R&D or energy efficient products assigned to our Global R&D Center in Switzerland

C4.5

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

Yes

C4.5a

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

Level of aggregation

Company-wide

Description of product/Group of products

Our main products, cement and concrete, are absolutely indispensable for the transformation to a low-carbon society. The sectors where intelligent use of our products enables improvements in the CO2 intensity range from residential (new, more efficient buildings, use of concrete's thermal mass and inherent long-term air tightness) to transport (rigid road surfaces, railway lines) to energy generation (foundations, towers, buildings for renewable energy systems such as wind turbines or solar power plants). Whether these emission reductions are in scopes 1, 2 or 3 of the third party depends on the circumstances. For example, if a building generates its own heat and/or cold, the energy savings would lead to emission reductions in scope 1 of the building operator; if the building gets heat and cold from a local network the reductions would be in scope 2. CEMEX relies mostly on the tool of Life-Cycle Assessment (LCA) in order to determine net savings related to the use of our products; we both perform in-house analyses and analyze external studies (e.g. recent studies published by the Concrete Sustainability Hub (CSHub) at the Massachusetts Institute of Technology, <http://web.mit.edu/cshub/>); if applicable, GWPs used are those as reported by the IPCC for a 100 year horizon. The potential for reduction and the timescales are highly dependent on the application, design, and local circumstances; however, first internal estimates show that the time in which those reductions offset the initial emissions from the production of our products is typically well below the lifetime of the relevant buildings and structures. While we currently do not have detailed figures for total emission reductions due to the use of our products, we estimate that the products we sell in one year generate direct savings of at least several million years over the full lifetime of the structures (which is typically several decades). In addition, we include here cementitious products that fulfil certain minimum requirements in terms of CO2-related indicators.

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

The EU Taxonomy for environmentally sustainable economic activities

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

48

% of total portfolio value

<Not Applicable>

Asset classes/ product types

<Not Applicable>

Comment

CEMEX is working with other members of the Cement Sustainability Initiative, now an effort belonging to the Global Cement and Concrete Association, on a methodology that will allow us to quantify the downstream impacts of our products in a consistent way. We roughly estimate that at least 50% of our product sales lead to emission reductions in the in-use phase compared to potential substitutes. R&D expenses refer to product development, not process development.

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	94
Pre-calcliner	60

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 1990

Base year end

December 31 1990

Base year emissions (metric tons CO2e)

42443692

Comment

Adjusted for recent divestments. Please note this covers only our cement operations as no data available for other business lines in 1990 (in 2019 these represented less than 1% of total scope 1 emissions)

Scope 2 (location-based)

Base year start

January 1 1990

Base year end

December 31 1990

Base year emissions (metric tons CO2e)

3568805

Comment

Adjusted for recent divestments. Please note this covers only our cement operations as no data available for other business lines in 1990 (in 2019 these represented less than 10% of total scope 2 emissions)

Scope 2 (market-based)

Base year start

January 1 1990

Base year end

December 31 1990

Base year emissions (metric tons CO2e)

3568805

Comment

Adjusted for recent divestments. Please note this covers only our cement operations as no data available for other business lines in 1990 (in 2019 these represented less than 10% of total scope 2 emissions) Location- and market-based scope 2 emissions in the base year are the same because at the time there was practically no choice of options.

C5.2

(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

Other, please specify (Internal tools, see C5.2a)

C5.2a

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

For ready-mix & aggregates operations, data for scope 1 and 2 have been extrapolated from data collected with the CEMEX CO2 footprint methodology from 2013 taking the production volume from 2019; this methodology assesses the total GHG footprint on a cradle-to-gate basis and is in compliance with most currently available standards for carbon footprints (PAS 2050, ISO 14040).

C6. Emissions data

C6.1

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

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)

39025281

Start date

<Not Applicable>

End date

<Not Applicable>

Comment

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

C6.3

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

Reporting year

Scope 2, location-based

3438006

Scope 2, market-based (if applicable)

3514951

Start date

<Not Applicable>

End date

<Not Applicable>

Comment

C6.4

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

Yes

C6.4a

(C6.4a) Provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure.

Source

Building Product Operations

Relevance of Scope 1 emissions from this source

Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source

Emissions are not relevant

Relevance of market-based Scope 2 emissions from this source (if applicable)

Emissions are not relevant

Explain why this source is excluded

Very small emissions compared to other business lines

Source

Offices

Relevance of Scope 1 emissions from this source

Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source

Emissions are not relevant

Relevance of market-based Scope 2 emissions from this source (if applicable)

Emissions are not relevant

Explain why this source is excluded

Very small emissions compared to plant operations

Source

Logistics Operations

Relevance of Scope 1 emissions from this source

No emissions excluded

Relevance of location-based Scope 2 emissions from this source

Emissions are not relevant

Relevance of market-based Scope 2 emissions from this source (if applicable)

Emissions are not relevant

Explain why this source is excluded

Emissions from logistics are included in scope 3 due to 1. their relatively small amount (compared to kiln operations) and 2. methodological issues (separating own fleet from third party transportation would be extremely data-intensive). This is in line with WBCSD-CSI guidance on scope 3 emissions in the cement sector.

C6.5

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

Purchased goods and services

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

5271355

Emissions calculation methodology

Purchases of clinker and cement from third parties are multiplied with generic emission factors.

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

Please explain

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

Determined as not relevant in assessment by Cement Sustainability Initiative within the World Business Council for Sustainable Development (sector-specific Scope 3 guidance).

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

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

1887602

Emissions calculation methodology

Calculated based on detailed energy consumption figures (taken from the protocol for Scope 1+2 emissions for cement, and from other internal data management systems for other businesses) and emission factors for cradle-to-gate GHG emissions from LCA database.

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

Please explain

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

1765621

Emissions calculation methodology

Calculated from data collected with the CEMEX CO₂ Footprint methodology from 2013 taking the production volume from 2019; this methodology assesses the total GHG footprint on a cradle to gate basis and is in compliance with most currently available standards for carbon footprints. Scope is restricted to relevant purchased goods and services (normally purchased clinker and cement).

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

Please explain

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

Determined as not relevant in assessment by Cement Sustainability Initiative within the World Business Council for Sustainable Development (sector-specific Scope 3 guidance).

Business travel

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

Determined as potentially relevant in assessment by Cement Sustainability Initiative within the World Business Council for Sustainable Development; however, previous calculations in CEMEX show that business travel is not relevant for us.

Employee commuting

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

Determined as potentially relevant in assessment by Cement Sustainability Initiative within the World Business Council for Sustainable Development; however, internal analyses show that emissions from employee commuting are likely to be in the range of 0.1% of our combined scope 1 and scope 2 emissions.

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

Determined as not relevant in assessment by Cement Sustainability Initiative within the World Business Council for Sustainable Development (sector-specific Scope 3 guidance).

Downstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

1319555

Emissions calculation methodology

Seaborne transportation of clinker and cement by our trading operations, based on total distance traveled and assessment of specific fuel consumption. Emissions from maritime transport of products are calculated by multiplying total fuel oil consumption with the corresponding emission factor. Where fuel oil consumption is not available this is estimated by extrapolating from existing data for similar vessels (i.e. vessels of similar size). Land transportation of cement was calculated using a rate of g CO₂/t-km multiplied by the volume distributed and round trip distances. Concrete distribution was calculated by multiplying total fuel consumption with the corresponding emission factor.

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

73

Please explain

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

Determined as not relevant in assessment by Cement Sustainability Initiative within the World Business Council for Sustainable Development (sector-specific Scope 3 guidance).

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

Use of sold products is impossible to track, and there is no generally accepted methodology yet for calculating associated emissions. For the purpose of reporting we consider those emissions not relevant; however, we are aware of the potentially positive impact that the use of our products has (see also C4.5). Besides, this category is determined as not relevant in assessment by Cement Sustainability Initiative within the World Business Council for Sustainable Development (sector-specific Scope 3 guidance).

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

Determined as not relevant in assessment by Cement Sustainability Initiative within the World Business Council for Sustainable Development (sector-specific Scope 3 guidance).

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

Determined as not relevant in assessment by Cement Sustainability Initiative within the World Business Council for Sustainable Development (sector-specific Scope 3 guidance).

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

Determined as not relevant in assessment by Cement Sustainability Initiative within the World Business Council for Sustainable Development (sector-specific Scope 3 guidance).

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

Determined as not relevant in assessment by Cement Sustainability Initiative within the World Business Council for Sustainable Development (sector-specific Scope 3 guidance).

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

Determined as not relevant in assessment by Cement Sustainability Initiative within the World Business Council for Sustainable Development (sector-specific Scope 3 guidance).

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

Determined as not relevant in assessment by Cement Sustainability Initiative within the World Business Council for Sustainable Development (sector-specific Scope 3 guidance).

C6.7

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

Yes

C6.7a

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

	CO2 emissions from biogenic carbon (metric tons CO2)	Comment
Row 1	1909679	

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

0.0032

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

42463287

Metric denominator

unit total revenue

Metric denominator: Unit total

13130000000

Scope 2 figure used

Location-based

% change from previous year

1.1

Direction of change

Decreased

Reason for change

Emission reduction activities, as for example: the use of alternative fuel (fuel switch), with a reduction of 155,000 t CO2 during 2019; change in UK to 100% renewable electricity in all businesses with green certificates, with a reduction of 37,000 t CO2; and clinker factor reduction initiatives and novel clinker production in certain facilities.

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	0.857	0.8	0.071
Cement equivalent	0.674	0.629	0.056
Cementitious products	0.667	0.622	0.055
Low-CO2 materials	0	0	0

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)
Americas	25641518
Asia, Australasia, Middle East and Africa	2056500
Europe	1409870
United Kingdom of Great Britain and Northern Ireland	1418504
Spain	2496672
Poland	1402108
Germany	1249206
Philippines	3350904

C7.3

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

By business division

By activity

C7.3a

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

Business division	Scope 1 emissions (metric ton CO2e)
CEMEX LatAm Holdings, S.A. ('CLH')	3653696
CEMEX Holdings Philippines, Inc. ('CHP')	3350904
Rest of CEMEX	32020681

C7.3c

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

Activity	Scope 1 emissions (metric tons CO2e)
Cement	38713230
Aggregates	147873
Concrete and asphalt	164178

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	38713230	36110367	
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)
Americas	2252541	2302020	4912866	1383229
Germany	121035	143008	269080	94247
United Kingdom of Great Britain and Northern Ireland	92754	14286	282145	280158
Philippines	310007	398182	453491	0
Other, please specify (Rest of World)	661669	657455	1544669	345075

C7.6

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

By business division

By activity

C7.6a

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

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
CEMEX LatAm Holdings, S.A. ('CLH')	100104	46233
CEMEX Holdings Philippines, Inc. ('CHP')	310007	398182
Rest of CEMEX	3027896	3070535

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)
Cement	3196655	3273600
Aggregates	179173	179173
Concrete and asphalt	62178	62178

C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7

(C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-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	3196655	3273600	
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	66492	Decreased	0.14	Different initiatives in electricity consumption: UK moved to a 100% renewable power contract with green certificates in 2019 (-37 ktms of CO2 vs. 2018), Solid Waste-Heat-Recovery increased its production (Emission Factor = Zero) (-2 ktms of CO2 vs. 2018), grid intensity reduction in different sites (-28 ktms of CO2 vs. 2018), together with some minor improvements in energy efficiency. To avoid double accounting divestment is excluded in the calculations (as they are reported in line "divestments"). Calculation (in %): Variation (66,492 CO2 tons) / Total Emissions scope1+2 in 2018 (47,025,887 t) * 100
Other emissions reduction activities	484060	Decreased	1.03	Emissions reduction calculation includes the ongoing projects which implementation started along 2018 and impacting in reductions in 2019 emissions (not fully implemented in 2018) + implemented projects in 2019 savings (real amounts from the implementation real date) + 1 project partially implemented in Assiut (portfolio change) that is not finished yet but it has been impacted already in 2019 partially. Projects included are AF increase, clinker factor initiatives and novel clinker production. To avoid double accounting divestment is excluded in the calculations (as they are reported in line "divestments"). Calculation (in %): Variation (484,060 CO2 tons) / Total Emissions scope1+2 in 2018 (47,025,887 t) * 100
Divestment	833169	Decreased	1.77	Divestment in 2019 of the cement operation in Latvia reducing our scope 1 and scope 2 emissions. Calculation (in %): Variation (833,169 CO2 tons) / Total Emissions scope 1+scope 2 in 2018 (47,025,887 t) * 100%
Acquisitions		<Not Applicable >		
Mergers		<Not Applicable >		
Change in output	3230569	Decreased	6.87	Production of cement declined by 7% in 2019 vs. 2018, so decreasing scope 1+2. Additionally, concrete and aggregates production also declined by 3.3% impacting also in the reduction of scope1+scope2. To avoid double accounting divestment is excluded in this calculation (as they are reported in line "divestment"). Calculation (in %): Variation (3,230,569) / Total Emissions scope1+2 in 2018 (47,025,887 t) * 100
Change in methodology		<Not Applicable >		
Change in boundary		<Not Applicable >		
Change in physical operating conditions		<Not Applicable >		
Unidentified		<Not Applicable >		
Other		<Not Applicable >		

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 30% but less than or equal to 35%

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)	5632537	46086850	51719387
Consumption of purchased or acquired electricity	<Not Applicable>	2174422	5287830	7462252
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>	0	<Not Applicable>	0
Total energy consumption	<Not Applicable>	7806959	51374680	59181639

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)	50549605
Consumption of purchased or acquired electricity	<Not Applicable>	6863081
Consumption of other purchased or acquired energy (heat, steam and/or cooling)	<Not Applicable>	<Not Applicable>
Total energy consumption	<Not Applicable>	57412686

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)

Petroleum Coke

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

19762096

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

19762096

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

Average emission factor for all petroleum coke used in our cement kilns according to the WBCSD CSI protocol. Emission factors at plant level can be default factors (provided by the protocol, based on IPCC values and data from CSI members) or plant-specific factors from sampling and testing of fuels.

Comment

Fuels (excluding feedstocks)

Bituminous Coal

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

13208694

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

13208694

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

95.4

Unit

kg CO2 per GJ

Emissions factor source

Average emission factor for all bituminous coals in our cement kilns according to the WBCSD CSI protocol. Emission factors at plant level can be default factors (provided by the protocol, based on IPCC values) or plant-specific factors from sampling and testing of fuels.

Comment

Fuels (excluding feedstocks)

Lignite Coal

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

93455

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

93455

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

96.2

Unit

kg CO2 per GJ

Emissions factor source

Average emission factor for all lignite used in our cement kilns according to the WBCSD CSI protocol. Emission factors at plant level can be default factors (provided by the protocol, based on IPCC values) or plant-specific factors from sampling and testing of fuels.

Comment

Please note that most of the lignite used in our kilns is provided as pulverized lignite that has lower CO2 emission factors than unprocessed lignite.

Fuels (excluding feedstocks)

Natural Gas

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

2888201

MWh fuel consumed for self-generation of electricity

498

MWh fuel consumed for self-generation of heat

2887703

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

Average emission factor for all natural gas used in our cement kilns according to the WBCSD CSI protocol. Emission factors at plant level can be default factors (provided by the protocol, based on IPCC values) or plant-specific factors from sampling and testing of fuels.

Comment

Fuels (excluding feedstocks)

Diesel

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

1447029

MWh fuel consumed for self-generation of electricity

3105

MWh fuel consumed for self-generation of heat

1443924

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

74.4

Unit

kg CO2 per GJ

Emissions factor source

Average emission factor for all diesel used in our cement kilns according to the WBCSD CSI protocol. Emission factors at plant level can be default factors (provided by the protocol, based on IPCC values) or plant-specific factors from sampling and testing of fuels.

Comment

Fuels (excluding feedstocks)

Alternative Kiln Fuel (Wastes)

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

13983091

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

13983091

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

51.6

Unit

kg CO2 per GJ

Emissions factor source

Average emission factor for all alternative fuels in our cement kilns according to the WBCSD CSI protocol. Emission factors at plant level can be default factors (provided by the protocol, based on input from CSI member companies) or plant-specific factors from sampling and testing of fuels.

Comment

Fuels (excluding feedstocks)

Other, please specify (Gasoline and others)

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

27377

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

27377

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

63.9

Unit

kg CO2 per GJ

Emissions factor source

Average emission factor for all fuels reported as 'gasoline and others' used in our cement kilns according to the WBCSD CSI protocol. Emission factors at plant level can be default factors (provided by the protocol, based on IPCC values) or plant-specific factors from sampling and testing of fuels.

Comment

Fuels (excluding feedstocks)

Fuel Oil Number 6

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

309444

MWh fuel consumed for self-generation of electricity

14534

MWh fuel consumed for self-generation of heat

294910

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

77.6

Unit

kg CO2 per GJ

Emissions factor source

Average emission factor for all fuel oil number 6 used in our cement kilns according to the WBCSD CSI protocol. Emission factors at plant level can be default factors (provided by the protocol, based on IPCC values) or plant-specific factors from sampling and testing of fuels.

Comment

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)

Petroleum Coke

Heating value

LHV

Total MWh fuel consumed for cement production activities

19762096

MWh fuel consumed at the kiln

19762096

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)

Bituminous Coal

Heating value

LHV

Total MWh fuel consumed for cement production activities

13208694

MWh fuel consumed at the kiln

13123963

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

84731

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

93455

MWh fuel consumed at the kiln

93455

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)

Natural Gas

Heating value

LHV

Total MWh fuel consumed for cement production activities

2888201

MWh fuel consumed at the kiln

2865461

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

22242

MWh fuel consumed for the self-generation of electricity

498

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

277247

MWh fuel consumed at the kiln

69000

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

205142

MWh fuel consumed for the self-generation of electricity

3105

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Fuels (excluding feedstocks)

Alternative Kiln Fuel (Wastes)

Heating value

LHV

Total MWh fuel consumed for cement production activities

13983091

MWh fuel consumed at the kiln

13983091

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 (Gasoline and others)

Heating value

LHV

Total MWh fuel consumed for cement production activities

27377

MWh fuel consumed at the kiln

0

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

27377

MWh fuel consumed for the self-generation of electricity

0

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Fuels (excluding feedstocks)

Fuel Oil Number 6

Heating value

LHV

Total MWh fuel consumed for cement production activities
309444

MWh fuel consumed at the kiln
272557

MWh fuel consumed for the generation of heat that is not used in the kiln
22353

MWh fuel consumed for the self-generation of electricity
14534

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

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	225162	186060	54239	20742
Heat	0	0	0	0
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	225162	186060
Heat	0	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 on-site/off-site generator owned by a third party with no grid transfers (direct line)

Low-carbon technology type

Solar

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

Dominican Republic

MWh consumed accounted for at a zero emission factor

1752

Comment

Solar PV plant in our cement operation in San Pedro, Dominican Republic. All these facilities are hosted but not controlled or operated by the company.

Sourcing method

Power purchase agreement (PPA) with a grid-connected generator with energy attribute certificates

Low-carbon technology type

Wind

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

United States of America

MWh consumed accounted for at a zero emission factor

8802

Comment

Wind power projects in two of our US plants. All these facilities are hosted but not controlled or operated by the company.

Sourcing method

Power purchase agreement (PPA) with a grid-connected generator with energy attribute certificates

Low-carbon technology type

Hydropower

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

Other, please specify (Colombia and Panama)

MWh consumed accounted for at a zero emission factor

149709

Comment

PPA to provide 100% renewable energy to our operations in Panamá and Colombia

Sourcing method

Power purchase agreement (PPA) with a grid-connected generator with energy attribute certificates

Low-carbon technology type

Biomass

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

Colombia

MWh consumed accounted for at a zero emission factor

28998

Comment

PPA to supply green energy coming from biomass sources (bagasse)

Sourcing method

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

Low-carbon technology type

Wind

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

Mexico

MWh consumed accounted for at a zero emission factor

655061

Comment

PPAs with wind power plants in Mexico (EURUS, Ventika I and II)

Sourcing method

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

Low-carbon technology type

Solar

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

Mexico

MWh consumed accounted for at a zero emission factor

44113

Comment

Tuli and Helios solar plants supplying renewable electricity to Mexico starting in 2019

Sourcing method

Green electricity products (e.g. green tariffs) from an energy supplier, supported by energy attribute certificates

Low-carbon technology type

Low-carbon energy mix

Country/region 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

225808

Comment

UK Power supply 100% renewable. New PPA signed with ENGIE in force from August 2018 for UK Operations. We expect to consume 100% renewable electricity in over 320 of our sites in the UK in 2019. Through our extended and revamped contract with ENGIE, all of the electricity supplied to these sites will come from 100% renewable energy sources, including wind energy. All supplies are REGO backed (Renewable Energy Guarantees of Origin) and each site gets an ENGIE statement confirming this. The reported energy here is just related to the new contract (100% Renewables). The mix of the previous contract was 34% renewable + 13% Nuclear (total figures reported in C7.5)

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/region of consumption of low-carbon electricity, heat, steam or cooling

Other, please specify (All CEMEX countries except Panama and UK (Panama and UK's renewable power are already disclosed as 100% of their electricity come from 100% renewable sources))

MWh consumed accounted for at a zero emission factor

988467

Comment

The electricity supplied to our operations have a renewable electricity mix indicated by the grid operator/country (residual mix) or indicated by the specific supplier. The renewable electricity indicated here is including all the renewable electricity supplied to all CEMEX operations in all countries but the already indicated in the previous disclosures. As 100% of the electricity supplied to the operations in Panama and UK are supplied from 100% renewable sources and they have been previously disclosed, those two countries are not included here.

C9. Additional metrics

C9.1

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

Waste

Metric value

13.4

Metric numerator

Waste-derived consump. Mln t from other industries

Metric denominator (intensity metric only)

Does not apply

% change from previous year

1.3

Direction of change

Increased

Please explain

Consumption of waste-derived fuels from other industries in million tons. Monitoring "waste" or sub-products consumption from other industries, like Alternative Fuels and additions to cement (fly ash or GBFS) - We set this as target in 2018 for 2030

Description

Energy usage

Metric value

30

Metric numerator

Power consump. of renewable energy in cement (MWh)

Metric denominator (intensity metric only)

Total Power consumption in cement (MWh)

% change from previous year

15.4

Direction of change

Increased

Please explain

Monitoring the consumption coming from renewable sources, regardless of the origin (self-generation or external sources). We set this as target in 2018 for 2030

Description

Land use

Metric value

72

Metric numerator

BAP and 3rd certification

Metric denominator (intensity metric only)

Total number of active quarries needing a plan

% change from previous year

10.8

Direction of change

Increased

Please explain

Metric value is a percentage. We set this as a target in 2018 for 2030. As we were about to finish our roadmap to implement a BAP (Biodiversity Action Plan) in quarries, we extended the scope of our goal to all quarries not-overlapped with high biodiversity value areas, to implement a 3rd party certification including any conservation action (or educational) with Wildlife Habitat Council (WHC).

Description

Other, please specify (Sustainability assessment executed by an independent party for our critical suppliers (% spend))

Metric value

Metric numerator

Critical suppliers assessed (spend)

Metric denominator (intensity metric only)

Critical suppliers' spend

% change from previous year

0

Direction of change

No change

Please explain

Since 2010, we have been rolling out CEMEX Supplier Sustainability Program, an effort that extends our commitment to sustainable practices and policies to our business partners through an evaluation executed by a specialized independent firm, including criteria such as Health & Safety, Community Relations, Human Rights, Employee Development and Diversity, and Environmental Compliance (including climate-related topics), among others. As part of our Sustainability 2030 Ambitions, we have decided to refine our former supplier assessment focus and our new plan is to assess at least 80% of the critical suppliers spend under our company's global procurement scope. By critical we refer to those business partners who can have significant impact on our three core businesses (cement, ready-mix concrete, and aggregates). Specifically, this involves those who could affect the continuity of our operations, involve environmental risks, and/or contribute the highest spend. At year end we have evaluated 44% of the total procurement spend. In 2019 there is no change due to the spend composition.

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	Yes, CEMEX has a proprietary R&D department, based in Switzerland, which evaluates and assess new climate-change technologies (proprietary or external), with a dedicated multidisciplinary team to evaluate low carbon technologies in the market together with CEMEX Ventures for the start-ups assessment. The R&D investment is a key in our short, med and long term strategy for all our cement and concrete operations worldwide. According different studies, like the IEA-CSI Technology Roadmap 2018, the Cembureau Roadmap 2050, one of the major contributors to our emissions reduction from 2030 on will be the capture and subsequent storage or utilization of CO2 emitted from our processes, including concrete re-carbonation (capacity to naturally absorb CO2 during concrete's lifetime or through accelerated carbonation), so CEMEX is committed to R&D in this field with its participation in different consortiums in EU and US. CEMEX works normally under the H2020 EU scheme and new EU Innovation Fund, and is also collaborating with NPC in USA in Carbon Capture, Utilization and Storage (CCUS) technologies, which can help us to manage transition risks. Examples of this R&D projects where CEMEX participates are LEILAC, GENESIS, EcoCO2... Additionally, there is also a need to research into non-traditional operating levers and this task is also leaded by R&D. An example is the development and roll-out of our new low-carbon clinker (that shows an emission reduction of over 15% compared to traditional Portland cement clinker) was speed up mainly in Mexico, SCAC and Europe. R&D is also adapting our portfolio to the new demand of products with sustainability attributes (like energy efficiency, resource efficiency, low CO2 footprint) and an example of this adaptation is Vertua, a range of products with low or neutral CO2 footprint developed by R&D in 2019 and launched to the market in early 2020 in UK, and extended already to France in June 2020.

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	Small scale commercial deployment	≤20%		An example is the development and roll-out of our new low-carbon clinker (that shows an emission reduction of over 15% compared to traditional Portland cement clinker) was speed up mainly in Mexico, SCAC and Europe. The percentage is calculated as follows: Total investment in low CO2 clinker divided by Total investment in low carbon technologies (including Alternative Fuels facilities, facilities to improve clinker factor, new product development and any other activity related to lowering our carbon footprint, CCUS consortium participation...)
Carbon capture and storage (CCS)	Basic academic/theoretical research	≤20%		CEMEX is working in different geographies in geological studies and feasibility studies to storage CO2 captured from our facilities. For example, through the cement spanish association (OFICEMEN) we participate with PETCO2. The percentage is calculated as follows: Total investment in Carbon Capture and Storage studies divided by Total investment in low carbon technologies (including Alternative Fuels facilities, facilities to improve clinker factor, new product development and any other activity related to lowering our carbon footprint, CCUS consortium participation...)
Carbon capture, utilization and storage (CCUS)	Basic academic/theoretical research	≤20%		CEMEX participates in different capture projects like LEILAC, GENESIS and one of the most important one in the context of utilization is EcoCO2, where CEMEX is the only cement partner aiming to produce biofuels derived from CO2 captured in industrial processes. The percentage is calculated as follows: Total investment in Carbon Capture and Utilization studies and investments divided by Total investment in low carbon technologies (including Alternative Fuels facilities, facilities to improve clinker factor, new product development and any other activity related to lowering our carbon footprint, CCUS consortium participation...)
Waste heat recovery	Large scale commercial deployment	≤20%		CEMEX has already a WHR facility in Solid plant - Philippines and about to start up a new facility in Apo plant - Philippines in 2021. Additional several studies to participate in a H2020 funding to build new facilities in nothern europe operations. The percentage is calculated as follows: Total investment in WHR facilities and studies divided by Total investment in low carbon technologies (including Alternative Fuels facilities, facilities to improve clinker factor, new product development and any other activity related to lowering our carbon footprint, CCUS consortium participation...)
Other, please specify (Accelerated recarbonation)	Pilot demonstration	≤20%		CEMEX is involved in the working group focused on the transition to concrete and applications to prefabricated parts and structures and understanding of the accelerated carbonation mechanism for recycled concrete aggregates. CEMEX was recently assigned to evaluate the physical and mechanical properties of the concrete carbonated aggregates when used in ready-mix concrete. FastCarb will allow us to develop the circular economy of concrete by improving the quality of recycled concrete aggregates. The FastCarb Project works to design and implement an accelerated carbonation process at pre-industrial scale to store CO2 in the aggregates of recycled concrete, and to characterize the environmental and economic viability of the process industrial recycling envisaged. The percentage is calculated as follows: Total investment in accelerated carbonation pilots and studies divided by Total investment in low carbon technologies (including Alternative Fuels facilities, facilities to improve clinker factor, new product development and any other activity related to lowering our carbon footprint, CCUS consortium participation...)

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

Carta Aseguramiento CEMEX Ingles.pdf

Page/ section reference

All (1-4)

Relevant standard

ISAE3000

Proportion of reported emissions verified (%)

99

C10.1b

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

Scope 2 approach

Scope 2 location-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

Carta Aseguramiento CEMEX Ingles.pdf

Page/ section reference

All (1-4)

Relevant standard

ISAE3000

Proportion of reported emissions verified (%)

93

C10.1c

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

Scope 3 category

Scope 3: Purchased goods and services

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

Carta Aseguramiento CEMEX Ingles.pdf

Page/section reference

All (1-4), part. 1 (please note that the CSI Cement CO2 and Energy Protocol also includes emissions from purchased clinker, not only scopes 1 and 2). The purchased clinker is part of scope 3 emissions and the verification of the CO2 protocol for scope 1 and 2 emissions also includes the revision of this purchased clinker, therefore it is included in the statement done for scope 1+2 emissions although it is not specifically mentioned in the letter.

Relevant standard

ISAE3000

Proportion of reported emissions verified (%)

17

C10.2

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

No, but we are actively considering verifying within the next two years

C11. Carbon pricing

C11.1

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

Yes

C11.1a

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

California CaT - ETS

Colombia carbon tax

EU ETS

Mexico carbon tax

Poland carbon tax

C11.1b

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

California CaT

% of Scope 1 emissions covered by the ETS

4.9

% of Scope 2 emissions covered by the ETS

0

Period start date

January 1 2019

Period end date

December 31 2019

Allowances allocated

0

Allowances purchased

0

Verified Scope 1 emissions in metric tons CO2e

1909790

Verified Scope 2 emissions in metric tons CO2e

0

Details of ownership

Facilities we own and operate

Comment

Please note that information on allocation is confidential as it allows to calculate clinker production in our facilities, that is why it is stated as "zero"

EU ETS

% of Scope 1 emissions covered by the ETS

20.1

% of Scope 2 emissions covered by the ETS

0

Period start date

January 1 2019

Period end date

January 31 2019

Allowances allocated

9504947

Allowances purchased

0

Verified Scope 1 emissions in metric tons CO2e

7814794

Verified Scope 2 emissions in metric tons CO2e

0

Details of ownership

Facilities we own and operate

Comment

C11.1c

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

Colombia carbon tax

Period start date

January 1 2019

Period end date

December 31 2019

% of total Scope 1 emissions covered by tax

0

Total cost of tax paid

176154

Comment

The figure shown here are the net taxes after compensation projects (see C11.2) (offset mechanism). The tax is for all liquid and gases fuels consumed in the operations, but other fossil fuels (petcoke, coal...) are not taxed

Mexico carbon tax

Period start date

January 1 2019

Period end date

December 31 2019

% of total Scope 1 emissions covered by tax

8.58

Total cost of tax paid

957517

Comment

Tax on all fossil fuels (but for natural gas). It is calculated as CO2 emissions related to fossil fuels to calculate the % covered by the tax over scope1

Poland carbon tax

Period start date

January 1 2019

Period end date

December 31 2019

% of total Scope 1 emissions covered by tax

3.25

Total cost of tax paid

98507

Comment

C11.1d

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

EMISSIONS REDUCTION STRATEGY: We have developed a "CO2 Reduction Roadmap" plan in a kiln by kiln / site by site cement operation. There is a designated leader in each Region from Operations and another leader from the Strategic planning side. This effort is led globally by the Director of Sustainability in coordination with the VP of Operations and Technology. There is a dedicated resource to consolidate all the information at global level.

This plan aims to identify, evaluate from the technical point of view and evaluate the economical feasibility of each and every initiative listed in each site. According to this economical feasibility, the initiatives are classified in short, middle and long term execution. The roll-out in each country started with a kick-off workshop, led by Global Ops and Tech (GO&T) and Corporate Sustainability, where the goal is presented together with the available global solutions. The Workshop is comprised of local members from Operations (production, quality and maintenance), Sustainability, Procurement, Sales and Planning.

The EU plan was completed in Feb 2019 (124 initiatives identified), and the rest of the Rest of the Regions (USA, Mexico, SCAC and AMEA) roadmaps finished in October 2019 and presented and approved by the Executive Committee in November 2019. The initiatives include improvements to energy efficiency, switch to alternative fuels (biomass) or natural gas, the use of clinker substitutes and decarbonated raw materials (local availability). CEMEX global is also actively participating in the development of CCUS tech. as a potential long-term solution, together with open constant dialogue with policy makers.

CARBON ALLOWANCES: The strategy, mainly in the EU and California, is to keep the surplus of allowances to be used in the future (no trading is made), in order to minimize the financial impact caused by changes in regulations.

OFFSETS PROJECTS: In addition to the optimization of emissions in regulated installations, CEMEX seeks registration of emission reduction projects that go beyond business as usual and achieve CO2 mitigation at reasonable costs. A particularly good example is the offsetting of all CO2 emissions from our truck fleet in Colombia by investing into eligible reforestation measures in that country.

MONITORING: In addition to the mandatory monitoring, reporting, and verification required by the EU ETS, all cement plants track their CO2 emissions using the CSI protocol (see also Q12). All monitoring activities are subject to internal control and third-party verification in a yearly basis. SCOPE 2 EMISSIONS: There is a specific department in charge of energy supplies at corporate level, and also a responsible at Regional Level to ensure all contracts and self generation are including low-carbon generation as part of the decision making process when investing or contracting power supply.

C11.2

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

Yes

C11.2a

(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

CEMEX Colombia earned in 2017 the Sello Verde de Verdad (True Green Label) certification for the neutralization of greenhouse gas emissions linked to transport activities. This makes CEMEX the first company in the country with carbon neutral certification on its entire vehicle fleet. Sello Verde de Verdad certification guarantees that the 1,000 vehicles that comprise CEMEX Colombia's total fleet are carbon-neutral thanks to offsets from the CO2CERO® forestry project. Through this project, CEMEX is committed to plant and maintain approximately 480,000 trees in Orinoquia, a post-conflict zone and one of Colombia's six natural regions. With more than 400 hectares from which the emissions offset will be achieved, this forestry project will not only capture around 120,000 tons of CO2, but also protect the region's native forests. It is voluntary but credits can be used for compliance (mitigation of the total carbon tax)

Verified to which standard

Other, please specify (ICONTEC)

Number of credits (metric tonnes CO2e)

43771

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

43771

Credits cancelled

Yes

Purpose, e.g. compliance

Voluntary Offsetting

C11.3

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

Yes

C11.3a

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

Objective for implementing an internal carbon price

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

GHG Scope

Scope 1

Application

The carbon price is integrated into our mid-term business planning process to better understand the impacts of carbon pricing on our business, to evaluate the impact of a potential regulation (risk) and to evaluate investments and acquisitions. In addition to this global price, local prices (for operations subject to carbon taxes or emissions trading) are also used. Example of Internal Carbon Price: As previously mentioned (C2.3a), we are deploying the "CO2 Roadmap" in all our cement operations, to identify at kiln/plant levels all the initiatives to be implemented, regardless of a carbon regulation in place. All identified investments (short, middle and long term) are analyzed considering the CO2 cost. Additionally, a sensitivity analysis is performed for different CO2 prices: 20 - 25 - 30 - 35 - 40 USD/CO2 t to assess the robustness of the investment.

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

30

Variance of price(s) used

In the global application we currently apply a fix price of 30 USD but we are also including prices variance to analyze the robustness of the decision (range from 20 - 40 USD/ton in 5 USD intervals). Specifically for the projects in EU and California (carbon floor), the analysts' prices middle and long term forecasts are also taken into account. The analysts' expectations are updated in a quarterly basis. For those countries with a carbon tax equivalent to a lower CO2 price (i.e. Colombia 5 USD/t), this lower price is also included in the sensibility analysis, to evaluate the "baseline" scenario

Type of internal carbon price

Shadow price

Impact & implication

The internal price on carbon allows CEMEX to: identify low-cost reduction opportunities as well as investment projects that are subject to increased risks under a scenario of external carbon pricing // raise awareness among top and middle management for CEMEX' potential exposure to external carbon pricing (financial impact of the risk) // drive a culture of constantly reducing our carbon footprint regardless of local regulation. Carbon prices based on external mechanisms (taxes, emissions trading) allow us to better evaluate the profitability of projects and strategies. Example of the implications: all Mexico AF projects, even considering that the process emissions are not yet regulated, are evaluated considering a CO2 cost. This is giving us the total impact of an upcoming regulation through an ETS.

C12. Engagement

C12.1

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

Yes, our suppliers
Yes, our customers

C12.1a

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

Type of engagement

Information collection (understanding supplier behavior)

Details of engagement

Collect climate change and carbon information at least annually from suppliers

% of suppliers by number

13

% total procurement spend (direct and indirect)

44

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

Rationale for the coverage of your engagement

We continue to develop a strong relationship with our supplier network. Since 2010, our Supplier Sustainability Program (SSP) has made an extensive commitment to sustainability across our value chain, communicating and promoting responsible practices. As part of this global program, a third-party evaluator performs this assessment based on ISO 26000, covering Social, Environmental, Health & Safety (H&S), Business Ethics, Stakeholder Relationships, and Financial Performance standards. Climate related issues are evaluated as part of this assessment to our suppliers. As part of our Sustainability 2030 Ambitions, we have decided to refine our former supplier assessment focus and our new plan is to assess at least 80% of the critical suppliers spend under our company's global procurement scope. By critical we refer to those business partners who can have significant impact on our three core businesses (cement, ready-mix concrete, and aggregates). Specifically, this involves those who could affect the continuity of our operations, involve environmental risks, and/or contribute the highest spend. At year end we have evaluated 44% of the total procurement spend.

Impact of engagement, including measures of success

AFNOR, the specialized consultancy firm we have partnered for SSP, prepares a consolidated report, including findings and conclusions from the assessment and identified opportunity areas, proposing an action plan to close gaps. This evaluation is periodically updated, and suppliers are expected to continuously improve their score (if the company is equal or above the average of their industry-average provided by AFNOR, it needs to be evaluated every 2 years; otherwise the supplier is invited to be evaluated again the next year). This grade is integrated into the supplier's scorecard to track and reward those that demonstrate advanced sustainability practices. Every year, we recognize our best-performing suppliers of the Program. For 2019, we acknowledged the following companies for their outstanding performance and high level of engagement with their sustainability practices: IMCA (Dominican Republic), Mygisa Constructora, S.A. de C.V., (Mexico), ILG Logistics, S.A. (Panama). Process: identification of critical supplier; invitation to be evaluated; signing up of the supplier into a platform where they answer a questionnaire focused in the 4 main topics that CEMEX address: Social, Environmental, Suppliers and Policies. Answers need to have documentation that proves current progress in the self-assessment. AFNOR review the answers and back-up provided to elaborate report and recommendations. Main impact and measurement: suppliers have recognized CEMEX's sustainability priority areas, understanding their importance. As companies are provided with a recommendation plan to improve, when being evaluated in a next round, the expected result tends to be higher than it was. This is how we evaluate the success of the implementation, by evaluating the interest increase and scoring vs. previous round assessment; in 2019 by supplier basis the score has improved, proving a successful engagement. After CEMEX implemented this Program some suppliers started looking for some opportunities where they could be more efficient and sustainable. Example: raw material freight supplier in Mexico's central area with a Diesel truck fleet started testing some routes using CNG (Compressed Natural Gas) trucks to evaluate the energy efficiency, autonomy, climate impact and related costs. He is planning to increase CNG trucks fleet to use them in some of our raw material freight routes.

Comment

Since 2010, we have been rolling out CEMEX Supplier Sustainability Program, an effort that extends our commitment to sustainable practices and policies to our business partners through an evaluation executed by a specialized independent firm, including criteria such as Health & Safety, Community Relations, Human Rights, Employee Development and Diversity, and Environmental Compliance, among others.

Type of engagement

Engagement & incentivization (changing supplier behavior)

Details of engagement

Run an engagement campaign to educate suppliers about climate change
Climate change performance is featured in supplier awards scheme

% of suppliers by number

100

% total procurement spend (direct and indirect)

100

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

80

Rationale for the coverage of your engagement

Our Supplier of the Year program is open to all CEMEX suppliers and it aims to recognize suppliers for their contribution to our businesses by delivering profitable and innovative solutions and services to CEMEX and our customers. The program recognizes four categories: 1)HEALTH AND SAFETY: Strong commitment to safety with Zero4Life mindset, investing in and implementing a formal, measurable safety program; 2)SUSTAINABILITY: Supplier with demonstrated leadership and outstanding performance on Suppliers Evaluation Program.; 3)INNOVATION: Outstanding performance in the introduction of new products or services to meet CEMEX's current and future business needs. 4)EXCELLENCE: Provides competitive advantage by exceeding cost performance goals (technology, assistance, delivery, payment terms, etc.) and objectives for products or services. The suppliers with outstanding results in each category are recognized with a special award. The one with the highest score across all categories obtains the main prize as Supplier of the Year.

Impact of engagement, including measures of success

During 2019, we established three editions of this program: Procurement Israel, Egypt and Panama, demonstration of how successful this global initiative has been. Having had three editions of this program shows the success in the implementation of the program. We recognized suppliers for their outstanding results in several categories: Health and Safety, Sustainability, Applied Innovation, Customer Focus, and The Supplier of the Year Award—which is granted to a supplier that excels and achieves outstanding performance in more than at least one of the previous four categories. For the evaluation of the Sustainability category, Climate Change impacts are a key metric.

Comment

At CEMEX, we recognize that our performance is dependent on our ability to partner with suppliers that share our passion for excellence. Fostering innovation alongside our suppliers is fundamental. It is a win-win process that promotes continuous improvement for our supply chain, benefiting both our company and our suppliers.

Type of engagement

Innovation & collaboration (changing markets)

Details of engagement

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

% of suppliers by number

100

% total procurement spend (direct and indirect)

100

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

80

Rationale for the coverage of your engagement

We are constantly evolving in order to become more flexible in our operations, more creative in our commercial offerings, more sustainable in our use of resources, more

efficient in our capital allocation, and more innovative in conducting our global business. We believe that fostering innovation alongside our suppliers is fundamental: a win-win process that promotes continuous improvement for our supply chain, benefiting both CEMEX and our suppliers. Our "INTEGRATE Your Ideas" Innovation Program encourages suppliers to share their disruptive ideas to continuously improve our products, processes, and services and this includes the possibility of proposing disruptive ideas to mitigate the supply chain CO2 footprint. Moreover, some of the most relevant benefits of this invitation to innovate together with our business partners are: > Strengthen collaboration, > Promote innovation as a win-win process, > Generate new thinking processes, > Improve supply chain practices, > Contribute to cost-reduction strategies, > Replicate winning ideas across CEMEX, > Promote the supplier's brand name throughout CEMEX operations, > Provide value for their clients, > Enhance the quality and image of their company, among others.

Impact of engagement, including measures of success

Through the Global Edition of INTEGRATE Your Ideas Innovation Program, suppliers can share with CEMEX one or several transforming ideas. During 2019, we merged our Supplier Innovation Program with our company's global Smart Innovation Model. As a result, we are participating in strategic Smart Innovation Model events both globally and in our Mexico, USA, SCA&C, Europe, and AMEA regions during this year. We measure the impact of the engagement by the number of ideas shared by suppliers, and reviewing the rate of their implementation we can ensure the success of this engagement with suppliers. In the 2019 Mexico edition, there was a ceremony hosted in September, where suppliers were invited; 35 ideas were received, 3 suppliers were rewarded and there was a winner (recognition of the best idea).

Comment

All CEMEX suppliers are invited to participate in the INTEGRATE Your Ideas Innovation Program

C12.1b

(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

1

% 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

Development of a certification for sustainable building projects that is simpler than traditional approaches (such as LEED or BREEAM) and is very heavy on energy efficiency (which in turn is the key parameter driving GHG emissions from the building over the full life cycle). The 'Ecooperating for Buildings' certification particularly targets clients in emerging economies that for a number of reasons shy away from traditional green building certifications (e.g. cost and complexity). CEMEX has selected this market segment because - buildings built today will be in operation (and thus impact the carbon balance of the corresponding countries) for a couple of decades, - a simple certification coming from a well-known local company significantly lowers the hurdle for a certification and therefore represents a significant incentive to embrace principles of energy efficient design and construction. With the help of this certification CEMEX speeds up the implementation of low-energy (and therefore low-carbon) buildings in emerging economies. In addition, Ecooperating for Buildings paves the way for more sophisticated certifications in which CEMEX also supports its clients. Thanks to 'Ecooperating for Buildings' certification and the 'Ecooperating' initiative where we already had strategic partners, a new business Consortium was created to build the first Net Zero Energy Building in Latin America, being CEMEX part of this Consortium.

Impact of engagement, including measures of success

At the end of 2019 CEMEX provided products and solutions for more than 850 projects that aim to achieve LEED® or BREEAM certifications, representing more than 5 million m2 of construction space, providing annual CO2 savings. Since the implementation of 'Ecooperating for Buildings' certification, and after running our campaign promoting the certification with marketing materials that explained what was considered for each certification, there has been increased interest in customers for improving the energy efficiency performance in buildings, for example in the Sorteio Tec Housing projects; each project aimed to achieve better energy efficiency than the rest, to achieve a higher rank in this certification (not only 'Ecooperating' but also 'Ecooperating Plus', with higher climate change requirements than the first level).

Type of engagement

Education/information sharing

Details of engagement

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

% of customers by number

1

% 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

When our customers succeed, we succeed. Accordingly, our core strategic goal is to become the most customer-oriented company in our industry—serving as our clients' best option. Led by Global Research & Development (R&D) in Switzerland, our team of experts works in close collaboration with our customers to offer them unique, integrated, cost-effective solutions that fulfill their specific performance requirements, including a growing portfolio of value-added solutions. As the only global building materials company with our own concrete admixtures business, CEMEX is able to design and develop novel, tailor-made concrete technologies with our proprietary chemicals. Moreover, our experts in fields such as geology, chemistry, materials science, and various other engineering disciplines work alongside behavioral scientists, cultural anthropologists, and commercial strategists to anticipate and understand society's trends to create innovative, sustainable construction solutions that satisfy our customers' current and future needs, while truly challenging the current state of the art. Among other benefits, our superior concrete solutions help improve land use, increase water and energy efficiency, mitigate noise pollution, and lower buildings' carbon footprint.

Impact of engagement, including measures of success

Increasingly, our customers play an integral part in our innovation process. Many of our products and construction systems are developed through a co-creation process in which an R&D team of experts and customers work symbiotically to achieve a building solution. For example, 2019 marked the fourth year of our collaboration with the UIC

Barcelona, through which we have worked successfully with a team of architects to advance bioclimatic design and sustainable building solutions. Among the results of our ongoing collaboration, we have finalized the technology for a concrete façade that is able to reduce the temperature of currents traversing it by up to 8°C. Similarly, we collaborated with Pich Architects to launch our climate concrete, designed to achieve zero net energy consumption in buildings. This year projects and customers working in collaboration with our R&D group earned recognition at different distinguished events such as Fast Company's Innovation By Design Awards and the MoMA PS1 Young Architects Program.

Type of engagement

Collaboration & innovation

Details of engagement

Run a campaign to encourage innovation to reduce climate change impacts

% of customers by number

1

% 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

Following a visit to our Global R&D Center in Switzerland, our customer decided that he would go beyond conventional building materials and utilize innovative concrete technology to build the family house of his dreams. His objective was to minimize, if not eliminate, conventional steel reinforcement while achieving high thermal efficiency.

Impact of engagement, including measures of success

Using our Resilia ultra-high strength and hyper ductile fiber-reinforced concrete, the outcome was the first building in the UK where steel reinforcement was reduced by 75%, embodying a 39% reduction of CO2 in the concrete structure or the equivalent of 120 tCO2. Our Insularis concrete technology was also used to achieve high thermal insulation, reducing the structure's thermal bridges and its overall energy consumption by 17%. In addition to these unique and innovative solutions, this collaborative project also underscores the types of issues that our R&D is addressing—from buildings' energy efficiency, comfort, and novel, more efficient construction systems to their CO2 footprint.

C12.3

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

Direct engagement with policy makers

Trade associations

Other

C12.3a

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

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Other, please specify (EU ETS)	Support	Support principle of market mechanisms; oppose interference in the market in Phase 3 of the EU ETS. Engage in discussion of post 2020 policy and Phase 4 (EU Commission proposals for 2020-2030). In addition ensure continued Carbon Leakage Support principle of market mechanisms; and ensure continued Carbon Leakage Status for Cement Industry. Details of engagement: Direct dialogue with EU Commission officials including in DG CLIMA and DG GROW, EU Parliamentarians and Permanent Representation of several EU Member States including UK, Poland, Croatia, Latvia and Spain. Participate in consultations.	Focus on carbon leakage and competitiveness of EU industry. Maintain carbon leakage status and avoid introduction of a cross-sectoral correction factor. Update benchmarks based on real data. Ensure innovation fund supports CCS and CCU in a wide range of relevant sectors.
Other, please specify (US legislation, particularly California)	Support	Support principle of market mechanisms; ensure fair burden sharing, particularly a level playing field in trade-exposed sectors. Compensation for increased power prices in trade-exposed sectors. Assessment of GHG emissions over the full life cycle. Acting to build climate resilience and reduce building emissions with concrete construction. Details of engagement: Direct dialogue with state and federal officials.	Complement existing output-based benchmarking for allocation of free allowances by a border carbon adjustment mechanism that minimizes leakage; compensation for increased power prices from auctioning allowances. Adoption of life-cycle analysis (LCA) to determine GHG impact of buildings and pavements, based on latest scientific findings (e.g. Concrete Sustainability Hub at the MIT).
Other, please specify (CCS-related legislation)	Support	Support legislation that enables the development and deployment of Carbon Capture and Storage (CCS) as a potentially crucial technology to limit GHG emissions in the long run.	Policy support and financing for RD&D into CCS. Clear and pragmatic rules for deployment of CCS. Stable political and financial framework to enable timely development.
Other, please specify (US Water Resources Development Act WRDA)	Support	Support principle of adapting to extreme climate related effects by building to resilient construction standards, which are those that allow a structure to resist hazards brought on by a major storm or disaster and continue to perform its primary function after such an event	Resilient construction principles infused into policy of WRDA and all federally funded public infrastructure and housing programs.
Other, please specify (Mexican ETS)	Support	Support principle of market mechanisms; avoid locking in teething problems due to precipitated implementation of the ETS.	Learn from the EU ETS: take sufficient time to monitor installations and thoroughly analyze results before proceeding to the implementation of the ETS, including allocation.

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

Support principle of market mechanisms; oppose interference in the market in Phase 3 of the EU ETS Encourage discussion of post 2020 policy and Phase 4. In addition ensure continued Carbon Leakage Status for Cement Industry.

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

Yes; via regular meetings of key TA Task Forces

Trade association

Coalition for Sustainable Cement Manufacturing and Environment (CSCME)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Support principle of market mechanisms; ensure fair burden sharing, particularly a level playing field in trade-exposed sectors

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

Active participation in CSCME work, including meetings with third parties.

Trade association

California Large Energy Consumers Association (CLECA)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Compensation for increased power prices in trade-exposed sectors, e.g. via output-based benchmarking for indirect power-related emissions.

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

Active participation in CLECA work, including meetings with third parties.

Trade association

California Nevada Cement Association (CNCA)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Use of life cycle analysis of GHG emissions associated with different pavement design options. With a price of carbon now in the California market, life cycle GHG emissions can be directly incorporated into a life cycle cost model for making pavement investment decisions.

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

Active participation in CNCA work, including meetings with third parties.

Trade association

Portland Cement Association (PCA)

Is your position on climate change consistent with theirs?

Unknown

Please explain the trade association's position

PCA is currently assessing the implications of current and potential proposals to regulate the cement industry under existing statutory authorities or new legislative authority.

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

Actively engaged in this initiative.

Trade association

Cámara Nacional de Cemento México (CANACEM)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Support principle of market mechanisms to design the new ETS that is being developed. Association wants to help Mexico to cover the NDC committed

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

CEMEX is participating as a key player in the revision of the new ETS design

Trade association

Federación Interamericana de Cemento (FICEM)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Close collaboration in the design of carbon mechanism in all countries where we have operations, to align our objectives with the NDC of each country

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

Participating in all meetings as key players

C12.3e

(C12.3e) Provide details of the other engagement activities that you undertake.

The most important of our other engagement activities are the following:

- CEMEX has signed the Paris Pledge for Action, by which we commit our full support to the Paris Agreement;
- In 2015, CEMEX has joined the Carbon Pricing Leadership Coalition (CPLC), a World Bank initiative that unites business, governments, and civil society in an effort to promote pricing emissions of GHG; we have shown particular leadership and commitment by accepting the CPLC's invitation to co-chair one of its working groups;
- CEMEX was one of the founding members of the Cement Sustainability Initiative (CSI); this sector project within the World Business Council for Sustainable Development (WBCSD), whose initiatives are now managed by the Global Cement and Concrete Association (GCCA) since 2019, is also working on a number of climate-related topics; the most important ones are:
 - The global Getting the Numbers Right (GNR) database that is based on a standardized monitoring protocol: this global database has provided accurate and reliable information about the cement sector's energy consumption and GHG emissions for almost a decade now;
 - In 2015 the CSI started the cement project within the Low-Carbon Technology Partnerships initiative (LCTPI) and has coordinated it ever since. CEMEX has taken a leading role in this project.

C12.3f

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

The consistency is ensured by integration, involvement, and clear, transparent communication.

Integration means that the development and update of both our carbon strategy and our communication messages are coordinated by the same function, the Corporate Sustainability Direction, and that the people involved are the same.

Involvement implies that important decisions are prepared by consulting the whole organization. For example, all our operations are routinely participating in the update of our climate change-related position papers.

We have a Public Affairs and Communication professional network of people who operates in our regions and participates in committees and working groups, as for example, Cembureau (EU), FICEM (SCAC) and CSCME (USA). These members, consulting the experts in each climate change related topic, gather the contents for our public policies proposal, aligned with the corporate strategy.

Clear, transparent communication includes e.g. the publication (both internal and external) of our position papers and our Integrated Report. In addition, the CO2 Coordination Group, made up of specialists and decision-makers at corporate, regional, and local levels, regularly convenes to exchange latest developments and discuss CEMEX response, incorporating our public policy proposals to the strategy, that then is used to refine the strategic actions plans in climate change, that are communicated afterwards in our Integrated Report.

C12.4

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

Publication

In mainstream reports, incorporating the TCFD recommendations

Status

Complete

Attach the document

Integrated Report2019.pdf

Page/Section reference

All our sustainability report is related to our climate position and actions, but here you are the summary of the most relevant pages: 23 (alignment with SDG; also in every section of the report) 24-25 (2030 targets and commitments) 83 (adherence to TCFD recommendations) From 75-90 (our Commitment to the Planet) From 50-55 (sustainable products and construction) From 56-69 (sustainable communities) From 70-74 (responsible suppliers) From 91-96 (risk management and mitigation actions)

Content elements

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

Comment

Publication

In voluntary communications

Status

Complete

Attach the document

cemex-position-climate-change-2020.pdf

Page/Section reference

Whole document

Content elements

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

Comment

During 2019 we have updated our Climate Change Position Paper, making it available to the public at the beginning of 2020. We published a new Climate Action strategy, which outlines the company's vision to advance towards a carbon-neutral economy and to address society's increasing demands more efficiently. In CEMEX, we believe that climate change is one of the biggest challenges of our time and support the urgency of collective action. To complement this strategy with a longer-term vision, CEMEX also established a new ambition to deliver net-zero CO2 concrete by 2050. In our business, we believe concrete—our end product—has a key role to play in the transition to a carbon-neutral economy, and is an essential component in the development of climate-smart urban projects, sustainable buildings, and resilient infrastructure. Furthermore, our new net-zero CO2 concrete aspiration for 2050 sets us on a path of open innovation that requires strategic partnerships and cross-industry collaboration in the development of breakthrough technologies like carbon capture, utilization, and storage; novel clinkers with low heat consumption, alternative decarbonated raw materials, carbonation of concrete waste for use as recycled aggregates, and the promotion of circular economy models that transform waste into fuel. Our Position Paper provides detail in our Climate Change strategy, ambitions and roadmap to achieve our targets.

C15. Signoff

C-FI

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

C15.1

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

	Job title	Corresponding job category
Row 1	Chief Executive Officer	Chief Executive Officer (CEO)

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	Public

Please state the main reason why you are declining to respond to your Customers

Prefer to work directly with customer, not through a third party

Please confirm below

I have read and accept the applicable Terms