Welcome to your CDP Climate Change Questionnaire 2022

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, 2021, of approximately 89 million tons. CEMEX is one of the 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 137 million tons, in each case, based on our annual sales volumes in 2021. 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$26.65 billion as of December 31, 2021. As of December 31, 2021, 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
Reporting year	January 1, 2021	December 31, 2021	No

C0.3

(C0.3) Select the countries/areas in which you operate.

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

C0.8

(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, an ISIN code	MXP225611567
Yes, an ISIN code	US1512908898

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.
President	The President of the Sustainability Committee is the primary responsible on Climate Action Strategy in CEMEX. The Committee President is an independent member of our board of directors. On March 26, 2020, CEMEX, S.A.B. de C.V. held an ordinary general shareholders' meeting in which the shareholders for the first time approved the appointment of the members of the Sustainability Committee, meaning that we have elevated the appointment of the members to be made at the shareholder level instead of at the board of directors level (we are a public company in Mexico and in the U.S.). The responsibilities are those described in the Sustainability Committee role, and an example of the types of decisions he makes is the revision and resources assurance of the CO2 reduction roadmap initiatives site by site, recently updated in late 2021 to strengthen our 2030 commitment and reshape our 2050 target.

C1.1b

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

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – 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	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. The roadmap has been revisited in late 2020 to increase the level of ambition to a Well-

	Overseeing major capital expenditures, acquisitions and divestitures Monitoring and overseeing progress against goals and targets for addressing climate-related issues	Below-2DS. The 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 2021 the scheduled agenda for the Sustainability Committee meetings included the following topics that are also related to climate change: CEMEX's 2021 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

C1.1d

(C1.1d) Does your organization have at least one board member with competence on climate-related issues?

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues
Row 1	Yes	This year, for the first time CEMEX published its BOARD OF DIRECTORS SKILLS MATRIX in the IR (page 99). This table displayed in page 99 provides information about the skills, experience and competences that the members of our Board of Directors bring to CEMEX. Each year, CEMEX, assisted by external advisors, prepares a questionnaire that all Board members must complete. Once the questionnaires are completed, CEMEX's Legal area reviews and confirms the information by using publicly available information. The biographies and skills and expertise information is sent to the President and Secretary of the Board, and to the company's CEO before the information is disclosed. In the "skill matrix" we show that 9 out of 15 Board members have a demonstrated experience in Climate Change.

C1.2

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

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
President	Both assessing and managing climate-related risks and opportunities	Half-yearly
Chief Executive Officer (CEO)	Both assessing and managing climate-related risks and opportunities	Quarterly
Other C-Suite Officer, please specify Executive Vicepresident Sustainability, Commercial and Operations Development	Both assessing and managing climate-related risks and opportunities	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	Link to remuneration: CEMEX has established a consistent set of targets for specific net CO2 emissions (kg CO2/ton of cementitious product) at global, regional, national, and plant levels, and these are linked to our publicly disclosed 2025 and 2030 targets. These targets are a mandatory part of the performance evaluation for the CEO, Executive Committee members (regional level), Country Managers (business unit level) and are transmitted in a top-bottom approach to the following levels across the organization. As part of this effort, all regional cement operations leaders and cement plant heads were required to assign at least 20% of their individual performance results weight to their specific CO2 emissions result; the individual performance results are part of their variable compensation scheme. Link to TCFD report (page 3): https://www.cemex.com/documents/20143/57102208/2021-reporte-tcfd.pdf/ce54ae81-fbfe-def4-72d1-d6696f487c30?t=1656608397049

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 Energy reduction project Energy reduction target	Variable compensation for all our Corporate executive team is linked to achievement of targets. One of these targets is the achievement of CO2 global reduction target for the year in question that is in line with a credible pathway towards reaching our publicly stated long-term target.
Environment/Sustainability manager	Monetary reward	Emissions reduction project Emissions reduction target Energy reduction project Energy reduction target	Variable compensation for all our sustainability leaders is linked to achievement of targets. One of these targets is the achievement of regional/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.
Energy manager	Monetary reward	Emissions reduction project Emissions reduction target Energy reduction project Energy reduction target	Variable compensation for all our energy managers is linked to achievement of CO2 targets and energy projects and targets. One of these targets is the achievement of regional/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.
Risk manager	Monetary reward	Emissions reduction project	Variable compensation for our risk managers is linked to achievement of CO2 targets. One of these targets is the

		Emissions reduction target	achievement of regional/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.
Procurement manager	Monetary reward	Environmental criteria included in purchases Supply chain engagement	Variable compensation of our procurement managers is linked to achievement of purchases environmental criteria and supply chain engagement program.

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	10	To cover all our planned decarbonization actions up to 2030, we define near-term as those actions being tackled from now and up to 2030. 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	10	20	We define medium-term as all the planned decarbonization actions being planned from 2030 up to 2040. 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	20	35	We define long-term as all the planned decarbonization actions being planned from 2040 up to 2050, when we expect to meet our Net-Zero target. 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.

Value chain stage(s) covered

Direct operations
Upstream
Downstream

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

Annually

Time horizon(s) covered

Short-term
Medium-term
Long-term

Description of process

CEMEX assesses annually their main locations exposures to natural hazards with the “Property Loss Prevention Program” (PLPP). This program is conducted by FM Global, CEMEX’s global property insurer, with the collaboration of site experts, mainly operations, procurement, and planning. The assessment provides each plant with a grade score by which all plants can be assessed.
The process to carry out the annual assessment is as follows:

- All cement sites are assessed annually, additionally with certain frequency some other strategic locations with a significant insurable value are visited like officers, marine terminals, warehouses, etc.
- The probability of occurrence and the financial impact if the identified risks are materialized, are evaluated in each site
- To evaluate the probability of occurrence of these climate related events (natural hazards), FM Global gets support from several proprietary maps of windstorm, flooding, seismic, wildfires…, built on information from the NASA, Research Centers, Universities, and other governmental local sources mainly in the USA.
- The financial impact is classified in two different terms: “Loss Expectancies-Property Damage”, the “Loss Expectancies-Time Element”. The “Loss Expectancies-Property Damage” evaluate the cost of the physical damage to equipment or infrastructure and the ”Loss Expectancies-Time Element” evaluates the production loss and the cost derived from the activities to restore the original production. Depending on the type of event, a recovery time and collateral damage is evaluated with the following formula:
LE-TE = (BI * (T/12 months) * % Exposure
- LE-TE: Loss-Expectancy Time-Element
- BI: Annual reported Incomes
- T: Estimated stoppage time
- %Exposure: percentage of participation of the specific equipment/building over the total site’s production.
- FM Global also considers proprietary data on historical losses (average recovery time) and research and experience on reconstruction of buildings and/or equipment replacement.
- Additionally, FM Global sets a series of recommendations to mitigate the financial impact together with their “remediation cost” to eliminate/mitigate the risk of a physical damage caused by an acute or chronic climate-related event.

All recommendations from the PLPP are prioritized and 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.
After recommendation’s completion, the loss expectancy-property damage and loss expectancy-time element can be reduced or eliminated, so the recommendation completion is followed-up in a yearly basis and re-evaluated when accomplished.

An example of how the described process is applied to a physical risk with a STAR approach:
Situation: In one of our operations in the Caribbean area, a risk of windstorm has been identified based on the windstorm maps information during the plant assessment.
Task: The FM Global team evaluate the following risks related to windstorm in this specific site, proving the next “Loss expectancies-property damage”, “Loss expectancies-time element” and “Estimated Cost” to mitigate or eliminate the risk:
• Improve the windstorm protection for the Power Station – Loss Expectancies-Property Damage: 2,650,000 USD / Loss-expectancies-Time element: 593,014 USD / Total estimated Cost: 90,000 USD (examples of actions to mitigate the risk: Provide additional securement to the lap-seam over the high-bay roof of the Power Station / Replace

rolling door on low-bay section of the Power Station with wind-rated doors…)
• Improve windstorm protection for Warehouse/Workshop Building – Loss Expectancies-Property Damage: 2,600,000 USD / Loss-expectancies-Time element: 593,014 USD / Estimated Cost: 185,000 USD (example of actions: Replace the rolling doors on the Warehouse/Workshop Building with wind-rated doors / Secure roof-mounted equipment over the Warehouse/Workshop Building…)
• Improve windstorm protection for the Palletizer and Finished Product Warehouse – Loss Expectancies-Property Damage 1,300,000 USD / Loss-expectancies-Time element: 593,014 USD / Estimated Cost: 27,000 USD (example of actions: Provide additional securement to the perimeter and corners of the Finished Product Warehouse / Replace the skylights over the Palletizer and Finished Product Warehouse to resist wind pressures…)
Action: The recommended actions are then prioritized (Priority 1, 2, 3) and calendarized for execution.
Result: After the completion of the recommendations, the Loss expectancies after completion are:
• Power station: Total Loss Expectancies After completion = from 3,243,014 USD (2.650.000 + 593,014) down to 320,000 USD (Property Damage = 230,000 USD + Time Element = 90,000 USD)
• Warehouse/Workshop building: Total Loss Expectancies After completion = from 3,193,014 USD down to 370,000 USD (Property Damage = 280,000 USD + Time Element = 90,000 USD)
• Palletizer and Finished Product Warehouse: Total Loss Expectancies After completion = from 1,893,014 USD down to 250,000 USD (Property Damage = 160,000 USD + Time Element = 90,000 USD)
This means that, by executing all the recommended actions with a total cost of 302,000 USD, we reduce the total Loss Expectancies of the site related to a windstorm risk from 8,329,042 USD down to 940,000 USD.

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: The trial period for the New ETS in Mexico has already started with a planned duration of 3-years, and it will 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 2023
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 multidisciplinaty 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	Climate change patterns and acute physical climate risks, mainly extreme weather events such as tropical cyclones and blizzards, could cause damage in the most exposed of our operations, as well as the disruption of our business continuity. That is why the assessment of acute physical climate risks is always considered relevant in our risk assessments. 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 shore, so chronic physical risks such as rising sea levels risk could become a long-term problem for the company, and that is why it is always included as relevant. 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

Primary potential financial impact

Increased direct costs

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).

CEMEX evaluates the risk of the transition to a carbon pricing regulation in those 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. The facilities are:

1. California (1 cement plant within the scope) - Already an ETS in force and already defined the rules or the new allocation period (CCA carbon price estimated (2021-2030): 50 USD/t)

2. All EU cement Operations. The new allocation rules for Phase IV EU ETS and the Parliment agreed on a proposal to progresively implement the Carbon Border Adjustment Mechanism and remove free allocation from 2027 on, so we also evaluate the risk of gradually missing free allocation; UK is also evaluated separately taking into account the proposal after Brexit already published (EUA price: 100 EUR/t – UKA price: 100 EUR/t (equivalent to 114 USD/t of CO2).

3. Colombia: tax on liquid and gas fossil fuels, with a potential risk evaluated of solid fossil fuels taxation (petcoke or coal) likely to be in place from 2023 on (expected tax on coal: 41,861 Colombian Peso equivalent to 11.1 USD/t) and a potential to implement a cap-and-trade ETS in the short term.

4. Mexico: 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 evaluated at 15 USD/t of CO2.

5. 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

Very likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

1,251,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

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)) * 100 EUR CO2/t (114 USD CO2/ton). Expected balance Phase IV considers gradual removal of free allocation recently approved by the European Commission (2026: 2027: -7% / 2028: -16% / 2029: -31% / 2030: -50% (half of free allocation) // California ETS = (Expected balance of Phase IV (2021-2030) - Surplus Phase III) * 50 USD CO2/t
Total EU ETS and California ETS = 1,099,000 USD

2. Colombia risk on a carbon tax on pet-coke = 290 ktons/year (expected petcoke consumption within a 10-year timeframe) * 11.1 USD CO2/t = 32,0000,000 USD

3. Mexico risk on a carbon tax on CO2 emissions in Nuevo Leon (Monterrey plant) = Expected CO2 emissions within a 10-year timeframe (12 MM tons) * 10 USD CO2/t = 12,000,000 USD

Total financial impact figure = 1 (EU+Cal) + 2 (Col) + 3 (Mex) = 1,251,000,000 USD

Cost of response to risk

599,000,000

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, in 2018 CEMEX started to build a cement site-by-site plan, the "CEMEX CO2 Roadmap", to identifying and listing all reduction initiatives needed to accomplish our 2030 target. The CO2 roadmap has been revisited in 2020-2021 to increase our climate ambition in line with Well-Below-2ºC Scenario.
CEMEX identified, evaluated and prioritized a total of 318 initiatives to be executed during this decade. The initiatives have been calendarized and their implementation is monitored in a monthly basis by the CEO and ExCo. Identified initiatives include: switch to AF (biomass) or natural gas in US, SCAC and MEX, clinker substitutes in All Operations, decarbonated raw materials in EU operations... CEMEX also participates in

the development of CCU (Carbon Capture Utilization) tech. as a long-term solution.
Case study (STAR) to mitigate the risk of the transition to carbon pricing:
• Situation: Operations in Colombia are facing a risk of being applied a tax on fossil fuels (applicable to petcoke in our case) from 2023 on (the law approval was postponed due to protests and new goverment will decided on it). The announced tax is equal to 41,861 Colombian Peso equivalent to 11.1 USD/ton of petcoke, updated annually with the CPI+1. We need to work to minimize the impact of the tax.
• Task: Try to minimize the impact of the future announced task identifying the petcoke volume which can be reduced by displacing it with an alternative fuel.
• Action: A New 1.6 MM USD investment was allocated in the plant in late 2020 in order to increase the Alternative Fuels Substitution from 20% up to 35% and it is about to be completed in 2022, so to reduce petcoke consumption and reduce CO2 emissions.
• Result: Due to the execution of this project, the petcoke consumption in this site is expected to be reduced in an annual basis a 18.8% in volume compared to 2020 petcoke volumes.

Cost of management calculation: the cost is equal to the identified investments for the period 2021-2030 = 596 MM USD. Additionally, a Full-Time-Employee for lobbying actions is included as a mitigation cost (200 kUSD/year) + an additional resource for CCUS development hired in Europe (100 kUSD/year) for a 10-year-timeframe.
Cost to response = Identified investment for 2021-2030 (596 MMUSD) + Lobbying & CCUS technician (3 MM USD (10-years)) = 599,000,000 USD

Comment

Cost of management calculation: the cost is equal to the identified site level investments for the period 2021-2030 = 596 MM USD. Additionally, a Full-Time-Employee for lobbying actions is included as a mitigation cost (200 kUSD/year) + an additional resource for CCUS development hired in Europe (100 kUSD/year) for a 10-year-timeframe. A quantitative breakdown of the cost of response to risk is provided next:
Cost to response = Identified investment for 2021-2030 (596 MMUSD) + Lobbying & CCUS technician (3 MM USD (10-years)) = 599,000,000 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
Cyclone, hurricane, typhoon

Primary potential financial impact

Increased capital expenditures

Company-specific description

Increased frequency and strength of tropical cyclones (as well as other extreme storms) can cause direct damage to our operations. All the operations are assessed by FM Global, our global insurer and the CEMEX Technical team under the program LPP (Loss-Prevention Program). Derived from this assessment we get the “Loss Expectancies-Property Damage”, the “Loss Expectancies-Time Element” and the “remediation cost” to eliminate or mitigate the risk of physical damage due to an acute or chronic climate-related event. The “Loss Expectancies-Property Damage” evaluate the cost of the physical damage to equipment or infrastructure and the ”Loss Expectancies-Time Element” evaluates the production loss and the cost derived from the activities to restore the original production.

The Loss Expectancies are evaluated with the “total financial loss model” developed by FM Global, which effectively calculates the true value of resilience. The probability of occurrence of these natural hazards (flooding, windstorms…) in a site is evaluated with the help of several proprietary maps of windstorm, flooding and others available like seismic, wildfires…, built on information from the NASA, Research Centers, Universities, and other governmental local sources mainly in the USA.

Additionally, to manage the physical risks (mainly for disruptive risks) CEMEX takes 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-high

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

81,030,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

The financial impact figure is obtained from the FM Global annual evaluation, and it is equal to the “Loss Expectancies-Property Damage” calculated for the climate-related acute and chronic identified risks. The Loss Expectancies-Property Damage” evaluates the equipment and infrastructure damage cost caused by the acute or chronic physical events identified for the site.

Total “Loss Expectancies-Property Damage” identified by FM-Global for acute and chronic climate-related risks for CEMEX is 81,030,000 USD with the following disclosure by Region: South-Central America & Caribbean: 35 MUSD / Mexico: 2 MUSD / United States: 27 USD / Europe Middle-East Africa & Asia: 17 MUSD.

An example of the identified risks, calculated Loss Expectancies and remediation cost is explained next: In one of our operations in the Caribbean area, a risk of windstorm has been identified based on the windstorm maps. The identified risks related to windstorm, “Loss expectancies-property damage” and “Estimated Cost of mitigation” are:

- Improve the windstorm protection for the Power Station – Loss Expectancies-Property Damage: 2,650,000 USD / Estimated Cost: 90,000 USD (examples of actions to mitigate the risk: Provide additional securement to the lap-seam over the high-bay roof of the Power Station / Replace rolling door on low-bay section of the Power Station with wind-rated doors…)
- Improve windstorm protection for Warehouse/Workshop Building – Loss Expectancies-Property Damage: 2,600,000 USD / Estimated Cost: 185,000 USD (example of actions: Replace the rolling doors on the Warehouse/Workshop Building with wind-rated doors / Secure roof-mounted equipment over the Warehouse/Workshop Building…)
- Improve windstorm protection for the Palletizer and Finished Product Warehouse – Loss Expectancies-Property Damage 1,300,000 USD / Estimated Cost: 27,000 USD (example of actions: Provide additional securement to the perimeter and corners of the Finished Product Warehouse / Replace the skylights over the Palletizer and Finished Product Warehouse to resist wind pressures…)

Cost of response to risk

9,318,000

Description of response and explanation of cost calculation

CEMEX assesses annually all plants’ exposure to all types of risks, including extreme weather-related risks, through the LPP (Loss-Prevention Program). This program is conducted by the engineering services of CEMEX and the global insurer (FM Global) and provides each plant with a score to be assessed “RiskMark Score”. The probability of flooding, windstorms, seism, fires…in a site is evaluated by FM Global and CEMEX in an annual basis with the help of “Global Flood, Seism and Windstorms Maps” developed by FM Global with information from NASA, Research Centers, Universities and other governmental local sources like mainly USA.

Case study to describe an example of how to manage the acute physical risk (flood)

- Situation: In the evaluation of our sites in 2021 by FM Global, the UK local flood maps

shown a large area exposed to flood in one of our sites, affecting the clinker store and cement mill building which are at high risk of flooding.
• Task: FM Global identified 3 new recommendations to prevent the flooding of the area with a calculated Loss Expectancies-Property Damage of 1,800,000 USD:
o Enhance the existing flood emergency response plan (FERP). Cost: 10 kUSD
o Install FM Approved flood protection equipment at doorways and openings. Cost: 100 kUSD
o Install permanent flood defences. Cost: 400 kUSD
• Action: The 3 recommendations were implemented in 2021.
• Result: Thanks to the implementation of the FM Global recommendation our RiskMark score will increase more than 4.5 points and the loss expectancies-property damage will be reduce from 1,800,000 USD down to 100,000 USD (residual damage after completion of the recommended actions).
Cost of management calculation: the shown figure is the portion of the insurance fee in 2021 related to natural disasters (physical acute and chronic risk) plus the “Estimated Cost of actions” identified by FM Global in the LPP evaluation. Both the natural hazards related insurance fee and the cost of actions is then split in “property-damage” and ”time-element” according to its relative weight over the total Loss Expectancies, which are 47% and 53% respectively.
A quantitative breakdown of the cost of response to risk is provided next:
Cost of insurance provider 2020= 34,792,000 USD * 47% (Natural Hazards Related premiums): = 16,341,697 USD
Total estimated Cost of actions = 3,652,500 USD
Total Cost of management for property damage = 16,341,697*47% + 3,652,500*47% = 9,318,000 USD

Comment

Cost of management calculation: the shown figure is the portion of the insurance fee in 2021 related to natural disasters (physical acute and chronic risk) plus the “Estimated Cost of actions” identified by FM Global in the LPP evaluation. Both the natural hazards related insurance fee and the cost of actions is then split in “property-damage” and ”time-element” according to its relative weight over the total Loss Expectancies, which are 47% and 53% respectively.
A quantitative breakdown of the cost of response to risk is provided next:
Cost of insurance provider 2020= 34,792,000 USD * 47% (Natural Hazards Related premiums): = 16,341,697 USD
Total estimated Cost of actions = 3,652,500 USD
Total Cost of management for property damage = 16,341,697*47% + 3,652,500*47% = 9,318,000 USD

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Downstream

Risk type & Primary climate-related risk driver

Acute physical

Cyclone, hurricane, typhoon

Primary potential financial impact

Decreased revenues due to reduced production capacity

Company-specific description

Increased frequency and strength of tropical cyclones (as well as other extreme storms) can also cause loss of production in our operations due to the time to recover the plant to its original production prior to the event.

As commented in Risk 2, all the operations are assessed by FM Global, our global insurer, and the CEMEX Technical team to calculate the “Loss Expectancies-Time Element” and the “remediation cost” to eliminate or mitigate the risk of production loss due to an acute or chronic climate-related event, as extreme climate events can disrupt supply of crucial inputs and product outputs. “The Loss Expectancies-Time Element” are evaluated with the “total financial loss model” developed by FM Global and provides an estimation of the loss of production together with the cost expended during the time to recover the plant to its production levels prior to the event with the formula described in the process C2.2. New Row 1. The probability of occurrence of these natural hazards (flooding, windstorms…) in a site is evaluated with the help of several proprietary maps of windstorm, flooding and others available like seismic, wildfires…, built on information from the NASA, Research Centers, Universities, and other governmental local sources mainly in the USA.

Additionally, to manage the physical risks (mainly for disruptive risks) CEMEX takes 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-high

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

92,926,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

The financial impact figure is obtained from the FM Global annual evaluation, and it is equal to the “Loss Expectancies-Time Element” calculated for the climate-related acute and chronic identified risks, where the loss of production together with the cost expended during the time to recover the plant to its production levels prior to the event are evaluated.

Total “Loss Expectancies-Time Element” identified for acute and chronic climate-related risks for CEMEX is 92,926,000 USD with the following disclosure by Region: South-Central America & Caribbean: 66 MUSD / United States: 11 MUSD / Europe Middle-East Africa & Asia: 12 MUSD / Mexico: 4 MUSD

An example of the identified risks calculated “Loss Expectancies-Time Element” and remediation cost is explained next: In the same operations in the Caribbean area exposed in Risk 2, a risk of windstorm has been identified based on the windstorm maps. The identified risks related to windstorm, “Loss expectancies-Time Element” is 593,014 USD, calculated as the production loss and cost to recover the original capacity of the facility after the event occurs for each of the equipment/building identified (power station, Warehouse/Workshop Building and Palletizer and Finished Product Warehouse).

Cost of response to risk

10,686,000

Description of response and explanation of cost calculation

CEMEX assesses annually all plants’ exposure to all types of risks, including extreme weather-related risks, through the LPP (Loss-Prevention Program). This program is conducted by the engineering services of CEMEX and the global insurer (FM Global) and provides each plant with a score to be assessed “RiskMark Score”. The probability of flooding, windstorms, seism, fires…in a site is evaluated by FM Global and CEMEX in an annual basis with the help of “Global Flood, Seism and Windstorms Maps” developed by FM Global with information from NASA, Research Centers, Universities and other governmental local sources like mainly USA.
Case study to describe an example of how to manage the acute physical risk (flood)
• Situation: In the evaluation of our sites in 2021 by FM Global, the UK local flood maps shown a large area exposed to flood in one of our sites, specifically affecting the clinker store and cement mill building which are at high risk of flooding.
• Task: FM Global identified 3 new recommendations to prevent the flooding of the area with a calculated Loss Expectancies-Time Element of 1,496,384 USD:

o Enhance the existing flood emergency response plan (FERP). Cost: 10 kUSD
o Install FM Approved flood protection equipment at doorways and openings. Cost: 100 kUSD
o Install permanent flood defences. Cost: 400 kUSD
• Action: The 3 recommendations were implmented in 2021.
• Result: Thanks to the implementation of the FM Global recommendation our RiskMark score increased more than 4.5 points and the loss expectancies-time element reduced from 1,496,000 USD down to 872,890 USD (residual loss of production after completion of the recommended actions), meaning a loss expectancy reduction of 623,494 USD.

Cost of management calculation: the shown figure is the portion of the insurance fee in 2021 related to natural disasters (physical acute and chronic risk) plus the “Estimated Cost of actions” identified by FM Global in the LPP evaluation. Then the weight of “time element” over the total Loss Expectancies of 53% is applied.
A quantitative breakdown of the cost of response to risk is provided next:
Cost of insurance provider 2020= 34,792,000 USD * 47% (Natural Hazards Related premiums): = 16,341,697 USD
Total estimated Cost of actions = 3,652,500 USD
Total Cost of management for property damage = 16,341,697*53% + 3,652,500*53% = 10,686,000 USD

Comment

Cost of management calculation: the shown figure is the portion of the insurance fee in 2021 related to natural disasters (physical acute and chronic risk) plus the “Estimated Cost of actions” identified by FM Global in the LPP evaluation. Then the weight of “time element” over the total Loss Expectancies of 53% is applied.
A quantitative breakdown of the cost of response to risk is provided next:
Cost of insurance provider 2020= 34,792,000 USD * 47% (Natural Hazards Related premiums): = 16,341,697 USD
Total estimated Cost of actions = 3,652,500 USD
Total Cost of management for property damage = 16,341,697*53% + 3,652,500*53% = 10,686,000 USD

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

CEMEX believes that concrete products, due to its versatility and robustness to build resilient infrastructure, can help combat and prevent the detrimental consequences of climate change by protecting people, property and the environment, by providing the level of climate proofing that will become mandatory as national building codes are revised to cope with more extreme weather events.

Additionally, in the Net-Zero by 2050 published by IEA, they recognized that when economies are developing, per capita cement and other materials demand tends to rise; during the last two decades, cement growth its demand by 2.4-times in response to global economic and population expansion. They also mention that an increase in demand is foreseen for cement as it is required to build additional transport infrastructure (roads, cycles, cars and trucks) and energy infrastructure, e.g. power plants and wind turbines to adapt to new Net-Zero Scenarios.

As CEMEX has a high presence in markets in developing countries (South-Central America and Caribbean, Mexico, Philippines, Egypt…), it is very likely to have the opportunity of increasing the demand of concrete products first to attend the societal growth needs, and then due to the need of adapting buildings and infrastructure to expected climate change effects, mainly in those geographies most exposed to extreme weather events, in our specific case Southern US, Latin America, and south-east Asia.

For instance, we observed a slightly higher demand, mainly in Latin America and Philippines, of products like Promptis® Rapid-hardening concrete that develops compressive strength to demold and move elements in four hours, so helped sites recover time lost during lockdowns and catch up with construction schedules, and Pervia®, a solution for draining pavement that makes it easier for water to permeate and be conducted to a water management system.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

145,300,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

The financial impact is estimated considering an increase of 0,8% in the demand of concrete and cement due to the need of adapting buildings and infrastructure to climate change effects. To get this 0,8% we used as a base the global average CAGR 0,5% for cement demand published by the IEA Net-Zero 2050, and we expect a slightly higher demand increase in the most exposed areas to climate-related risks. Regions considered as more likely to be impacted are: Southern US, Latin America (Mexico, SCAC (South Central America and Caribbean)) and south-east Asia. Figures shows expected revenues increase over the next decade.
Additionally, as we commented, we estimate an additional global demand increase due to the need of new climate-related infrastructure, like additional transport infrastructure (cycling roads...) and energy infrastructure, e.g. power plants and wind turbines to adapt to new Net-Zero Scenarios. Anyway, to be conservative, we do not consider this global potential demand increase.

A quantitative breakdown of the financial impact figure is provided next (please note that EBITDA by plant/Region cannot be disclosed)
(Sum of 2021 annual Cement and Concrete's EBITDA in (SCAC + Mexico + Philippines + South USA) * 0,8% (annual increase) * 10 years = 145,300,000 USD

Cost to realize opportunity

4,800,000

Strategy to realize opportunity and explanation of cost calculation

The strategy to realize the opportunity to increase the concrete demand to respond to societal needs quickly and affordably is to promote the benefit of innovative products and techs. That is why, in 2019, CEMEX developed a new division called "Urbanization Solutions". Through Urbanization Solutions CEMEX capitalizes on its expertise in building materials to offer complementary solutions to solve the most pressing societal needs: resilient buildings and infrastructure appropriate for disaster relief, energy-efficiency and affordability.
Case study - increase in demand of concrete by offering products to combat climate change effects
Situation: Bogotá Water Utility Company has a masterplan to recuperate/protect wetlands inside metropolitan area (project "Parque Lineal Humedal Juan Amarillo"). Wetlands are prone to flooding during extreme rainy events – that have erratically proliferated during last decade - that can affect close-by poorly settlements.
Task: CEMEX and the water utility company "Empresa de Acueducto de Bogotá" explored the use of novel technologies in permeable concrete PERVIA™ – never

applied in lineal parks nor environmental protection strips – 60m from wetland border to settlement – to create pedestrian and bicycle paths that will provide protection to population from flooding and will also serve for sporting, leisure and biodiversity protection.
Action: CEMEX digitally simulated with proprietary engineering calculators the structural and hydrological design of permeable concrete PERVIA™, which allows to permeate rainwater to underneath substrates meanwhile maintaining a usable and strong surface. Pilot tests were also performed on site to prove the concept and showcase authorities, contractors, and key stakeholders.
Result: Between 2019-20 the construction of first 4,5km of pedestrian path required delivery of 3.000 m3 of PERVIA™ concrete and replacing 13.500 m2 of asphalt (initial solution) by a permeable concrete surface alongside the wetland (benefit 100.000 USD).
Cost to realize the opportunity: Total cost of direct structure in urbanization solutions * 14% (dedicated resources to building and infrastructure construction solutions) plus Total cost of direct structure in R&D * 9% (dedicated resources to design and urban dynamics and materials and product design), both over a 10-years' time = 4,800,000 USD. Additionally, CEMEX collaborates with external architects and developers in a case-by-case basis, but this cost is excluded.

Comment

Cost to realize the opportunity: Total cost of direct structure in urbanization solutions * 14% (dedicated resources to building and infrastructure construction solutions) plus Total cost of direct structure in R&D * 9% (dedicated resources to design and urban dynamics and materials and product design), both over a 10-years' time = 4,800,000 USD. Additionally, CEMEX collaborates with external architects and developers in a case-by-case basis, but this cost is not included.

Identifier

Opp2

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

Development of new products or services through R&D and innovation

Primary potential financial impact

Increased revenues through access to new and emerging markets

Company-specific description

Several 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)

31,560,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Calculations are done considering an increase of 4% annually in the demand of "high-energy-efficient" portfolio of products for 10 years (6% of total concrete sales in 2020 related to this energy efficient products portfolio). This increase is estimated based on the historical demand increase over the last 5 years (annual average 5%) and considering that, according to IEA Net Zero by 2050 report, mandatory zero-carbon-ready building energy codes for all new buildings need to be introduced in all regions by

2030.

A quantitative breakdown of the financial impact figure is provided next
(Revenue 2021 related to Products * 4% annual increase in sales * 10 years) = 31,560,000 USD

Cost to realize opportunity

6,800,000

Strategy to realize opportunity and explanation of cost calculation

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 and develop afterwards the solution.
Case Study to realize the opportunity to increase our revenues through low carbon products and construction solutions:
Situation: Pich Architects wanted to develop a structure designed to achieve net-zero energy consumption in Monterrey, Mexico (OUM Wellness building)
Task: CEMEX and Pich Architects combined their capabilities to achieve the challenge and agree the supply of CEMEX’s global concrete brand, Resilia ®
Action: CEMEX provided the Resilia ® concrete, a substitute for steel with fibers that provide hyper strength and ductility. The building combines the sustainability attributes of our construction material with an active bioclimatic facade to reduce exterior air temperature by 6 °C to 8 °C, improving comfort in the intermediate spaces of the building and reducing the surface temperature of the outer face of the enclosures in direct contact with the air-conditioned interior spaces.
Result: the construction in ongoing and the project has the maximum environment ambition as it aims to be certified as NZEB, LEED®, and WELLTM. CEMEX contribution to this innovative solution has been well received and has increased the demand of Resilia ® a 5% globally from 2019 to 2020 , which means to increase the incomes close to 800,000 USD.

Cost to realize the opport: The cost of developing a new high-energy-efficiency product depends on several circumstances and it is part of R&D activities. On the top of this, there are other relevant expenses for e.g. certification and market introduction.
The estimated cost is related to the cost of R&D structure (staff) dedicated to developing this type of innovative solutions together with the estimated cost of market penetration of a new product (new product marketing campaign).
Total cost of direct structure in R&D * 12% (% of dedicated resources to new high efficiency solutions) over a 10-years’ time = 4,800,000 USD + 2,000,000 (marketing over 10-years) = 6,800,000 USD

Comment

Cost to realize the opport: The cost of developing a new high-energy-efficiency product depends on several circumstances and it is part of the R&D department activities. On the top of this, there are other relevant expenses for e.g. certification and market

introduction.
The estimated cost is related to the cost of R&D structure (staff) dedicated to developing this type of innovative solutions together with the estimated cost of market penetration of a new product (new product marketing campaign).
Total cost of direct structure in R&D * 12% (% of dedicated resources to new high efficiency solutions) over a 10-years' time = 4,800,000 USD + 2,000,000 (marketing over 10-years) = 6,800,000 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

Both the environment and CEMEX's revenues can benefit from co-processing if the right waste management regulation is in place. The right waste management regulation will enable the development of a profitable waste management business by, for instance, imposing taxes and bans to landfills. This will lead to increase the alternative fuels availability at a lower cost and to reduce the CO2 emissions.
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 those regions with lack of or low regulatory enforcement, like Latin America, Asia and Africa and some areas in the USA, which are precisely the CEMEX markets that are expected to be most positively impacted, as they are the ones with more opportunity to increase the Alternative Fuels rates at a lower fuel cost.
Countries like Germany, where the waste directive and the appropriate economic instruments to develop profitable waste management business are fully in place, reaches year over year alternative fuel substitution rate of 75%-80%, while CEMEX 2020 average was 25.3%.

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)

64,820,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

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 estimated with the following assumptions:
1. Average saving of 3 USD/Gcal of expected fuel mix vs.current fuel mix cost.
2. Annual increase of 5% of the total thermal substitution globally.
3. The estimated saving is calculated for 10 years.
A quantitative breakdown of the financial impact figure is provided next:
Total Thermal Gcal consumption 2021 in cement kilns (43.4 million Gcal) * 5% improvement * 3 USD/Gcal * 10 year = 64,820,000 USD

Cost to realize opportunity

6,000,000

Strategy to realize opportunity and explanation of cost calculation

To realize the opportunity to increase the use of lower-emissions sources of energy in our kilns we have several lines of actions:
1. Contact the Local/Regional/National administrations to promote the implementation of the proper regulation.
2. We also promote the co-processing in our communities and with our main stakeholders.
3. We also take a proactive approach in developing own waste management businesses, which are sometimes difficult if the regulatory incentives are not in place.
A case study describing our approach to materialize this opportunity is explained next:
Situation: Due to a lack of waste management and solid regulation in Mexico, CEMEX founded a company in 1993 to carry out and integral management of industrial, agricultural and domestic waste, “Pro Ambiente”. “Pro Ambiente” is now specialized in separate waste collection, reuse, recycling and recovery of the non-recyclable fraction to be co-processed in our kilns. The challenge is still being huge as there are still no proper regulatory mechanisms in place to fully develop this business.
Task: Pro Ambiente wanted to get the most out of the business and to promote the responsible waste management as much as possible.
Action: with this purpose Pro Ambiente developed in 2018 Wazte, a digital platform to offer our customers and any other interested party (including authorities) a responsible collection and treatment of their wastes

Result: In 2021 Wazte has collected 167,000 tons of waste, avoiding the emission of more than 230,000 tons of CO2 and generating an income of 4,600,000 USD in Proambiente. On the other hand, the savings in our variable cost due to the consumption of these collected alternative fuels in our kilns in Mexico was close to 2,004,000 USD in 2021.

The cost to realize the opportunity in the medium-term worldwide is the cost of the lobbying actions to promote the implementation of the appropriate waste management policies and to promote the unique benefits of co-processing. Quantitative breakdown of the cost to realize the opportunity = estimated cost of the lobbying actions equivalent to 200 annual lobbying hours * 60 USD/hour * 50 lobbying resources around the world = 600,000 USD/year * 10 years = 6,000,000 USD for 10 years.

Comment

The cost to realize the opportunity in the medium-term worldwide is the cost of the lobbying actions to promote the implementation of the appropriate waste management policies and to promote the unique benefits of co-processing. Quantitative breakdown of the cost to realize the opportunity = estimated cost of the lobbying actions equivalent to 200 annual lobbying hours * 60 USD/hour * 50 lobbying resources around the world = 600,000 USD/year * 10 years = 6,000,000 USD for 10 years.

C3. Business Strategy

C3.1

(C3.1) Does your organization's strategy include a transition plan that aligns with a 1.5°C world?

Row 1

Transition plan

Yes, we have a transition plan which aligns with a 1.5°C world

Publicly available transition plan

Yes

Mechanism by which feedback is collected from shareholders on your transition plan

We have a different feedback mechanism in place

Description of feedback mechanism

We present our decarbonization strategy, targets and roadmaps both to the Sustainability Committee at the Board, and directly to the Board itself, and, with the feedback received in the meeting from the Board, we adjust the strategy accordingly if needed.

Frequency of feedback collection

More frequently than annually

Attach any relevant documents which detail your transition plan (optional)

https://www.cemex.com/full-story/-/asset_publisher/FRPW43WCYckA/content/cemex-joins-two-world-leading-initiatives-to-achieve-carbon-neutrality;
https://www.cemex.com/sustainability/future-in-action;
https://www.cemex.com/documents/20143/53933405/2021-cemex-day-climate-action.pdf/47c534a8-8f0d-6a6d-173d-2fced53cd025?t=1633605985217

2021-cemex-day-climate-action.pdf

C3.2

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

	Use of climate-related scenario analysis to inform strategy
Row 1	Yes, qualitative and quantitative

C3.2a

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

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Transition scenarios IEA STEPS (previously IEA NPS)	Company-wide		Relevant underlying assumptions Industry policies and incentives to technology development: Different measures depending on the geography. EU: New Industrial Strategy and country-level spending on green industry pilots, circular economy and hydrogen. U.S.: Investments from a Department of Energy program to decarbonize manufacturing. LATAM: No incentives, except in Brazil. Building sector policies: Different measures depending on the geography. EU: Country-level incentives for renovation and appliance upgrades, new building codes, and clean heating incentives and investment. Egypt: minimum performance standards for incandescent lamps. U.S.: Updated minimum energy performance standards. LATAM: no building policies in place but for Argentina. Carbon price (USD/t): EU: 2030: 65 / 2040: 75 / 2050:90 // Colombia, Mexico: 2030: 15 / 2040: 20 / 2050: 30 // US: Price impacting CEMEX only in California. Cement demand and demand of low carbon products: CAAGR: +0.7 in 2030 and -0.2 in 2050 // Low carbon

			products demand increase +0.1
Transition scenarios IEA SDS	Company-wide		Relevant underlying assumptions Industry policies and incentives to technology development: In all geographies, policies to support increasing deployment of CCUS and hydrogen, to support circular economy, enhanced minimum energy performance standards by 2025 for electric motors and mandatory energy audits. Building sector policies: Mandatory energy conservation building codes, including net-zero emissions requirement for all new buildings by 2030 at the latest. Carbon price (USD/t): Advanced economies: 2030: 120 / 2040: 170 / 2050: 200 // Colombia and Mexico with NZ pledge: 2030: 40 / 2040: 110 / 2050: 160 Cement demand and demand of low carbon products: CAAGR: +0.7 in 2030 and -0.4 in 2050 // Low-carbon products demand increase +0.2
Transition scenarios IEA NZE 2050	Company-wide		Relevant underlying assumptions Industry policies and incentives to technology development: Relies on a much more rapid pace of technology innovation than has typically been achieved in the past and at a competitive cost. Most new clean technologies in heavy industry demonstrated at scale in 2030 and more than 90% of heavy industrial production is low emissions in 2050. In 2035, we expect to capture 25% of the carbon in our facilities, and in 2050, 90% of the carbon. Building sector policies: Universal energy access and all new buildings are zero carbon-ready and 85% of all buildings are zero carbon-ready in 2050 Carbon price (USD/t): Advanced economies: 2030: 130 / 2040: 205 / 2050: 250 // Developing economies: 2030:15 / 2040: 35 / 2050: 55 Cement demand and demand of low carbon products: CAAGR: -0.20 in 2030 and -0.3 in 2050 // Low-carbon products demand increase +0.5
Physical climate scenarios RCP 4.5	Company-wide		Temperature rise outcome of the RCP 4.5 IPCC 5th assessmente scenario is aligned with the STEPs scenario's temperature outcome by the end of the century, so this has been the selected physical scenario under the STEPs transition scenario to

			analize the physical impacts in our operations of acute and chronical climate-related risks, so the expected temperature rise, extreme wheather events frequency and severity and sea level rise by 2050. This is the scenario with the highest temperature outcome among all the analyzed scenarios, so it is the one with the most servere physical expected consequences in our sites. Being ready for the physical consequences under this RCP 4.5 scenario, we are covered for the consequences under other analyzed scenarios, meaning that the strategy to mitigate the physical impact under other less pesimistic scenarios is resilient.
Physical climate scenarios RCP 2.6	Company-wide		Temperature rise outcome of the RCP 2.6 IPCC 5th assessment scenario is aligned with the IEA SDS's temperature outcome, so this has been the selected physical scenario under the SDS transition scenario to analize the physical impacts in our operations of acute and chronical climate-related risks, so the expected temperature rise, extreme wheather events frequency and severity and sea level rise by 2050.
Physical climate scenarios RCP 1.9	Company-wide		Temperature rise outcome of the RCP 1.9 IPCC 5th assessment scenario is aligned with the IEA NZE 2050 scenario's temperature outcome, so this has been the selected physical scenario under the NZE 2050 transition scenario to analize the physical impacts in our operations of acute and chronical climate-related risks, so the expected temperature rise, extreme wheather events frequency and severity and sea level rise by 2050.

C3.2b

(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.

Row 1

Focal questions

The focal questions we try to asses by performing climate-related scenario analysis are aligned to the TCFD recommendations: We want to describe the resilience of our organization’s strategy, taking into consideration different climate related scenarios, including a 2°C or lower scenario, and we want to describe the impact of climate-related risks and opportunities on the organization’s businesses, strategy, and financial planning.

Results of the climate-related scenario analysis with respect to the focal questions

To evaluate our strategy resiliency, the selected scenarios are Stated Policies Scenario (STEPS), combined with RCP 4.5 to evaluate physical impacts, Sustainable Development Scenario (SDS) combined with RCP 2.6, and Net Zero emissions by 2050 Scenario (NZE) with RCP 1.9. The worst-case temperature scenario is the STEPS-RC 4.5, which does not take it for granted that governments will reach all announced goals. Instead, it takes a granular sector-by-sector look, considering not only existing policies but also of those that are under development, like the “Fit for 55” package. The SDS and NZE are also considered to evaluate the resiliency of our strategy as more restrictive transitional scenarios and less impacting in terms of physical risks evaluation (RCP 2.6 - RCP 1.9).

To assess our strategy effectiveness the following risks were evaluated under the different selected scenarios:

Reduced market demand for higher- carbon products / Increased operating costs for high carbon activities under regulated markets / Risk of stranded assets, where for all risks both probability and impact increase in the NZE.

And physical risk, so increased business interruption and damage across operations and supply chains, where the probability and impact increase in the STEPs – RCP 4.5.

And the following opportunities:

Increased demand for lower-carbon products and services / New technologies available at competitive cost / Access to competitive energy sources, where probability and impact increase in the NZE scenario and opportunity to enhance reputation and brand value, where in all probability and impact are both similar under the different scenarios.

The results of the analysis (available online) confirm that CEMEX’s carbon strategy is in general robust under the three analyzed scenarios. CEMEX is aware that climate action is the biggest challenge of our times. With the Future in Action program, we remain committed to becoming a net-zero CO2 company by 2050. We will provide greener products and services for a more sustainable and circular world.

Actions derived from the scenario analysis and how it impacts our strategy:

- Continue working to achieve 2030 targets of reducing our net specific CO2 emissions by 40% compared to our 1990 baseline in cement and 35% in concrete; mid-term performance validation to guarantee achievement
- While working to reach our goal of delivering net-zero CO2 con crete by 2050, in 2022 we will validate our 2050 climate targets to be in line with the SBTi.
- Also, CEMEX will continue investing in research and development to deliver innovative building materials and solutions to build climate-smart urban projects, sustainable buildings, and climate-resilient infrastructures, while capitalizing on CX Ventures, Urbanization Solutions, and strategic partnership.
- We remain committed to identifying and investing in new technologies needed to achieve our 2050 target, and it will be strengthened in the most carbon-constrained scenarios.

C3.3

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

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	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. 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 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 5% annually in the med-long term period. Case study: Situation: CEMEX observed a demand of low-carbon products mainly in Europe but also in other markets. Task: CEMEX aimed to offer to the market a new low-carbon range of concrete products Action: During 2019 R&D developed an innovative geopolymer-based concrete achieving a footprint reduction of up to 70% compared to a traditional structural concrete. The new product is a result of an intensive research becoming is the first product of its kind available on the market. Together with the geopolymer-based concrete, Vertua Ultra Zero, we developed Vertua Classic and Vertua Plus, reducing the emissions 30% and 50% respectively. CEMEX also offer to the customer the compensation of the remaining emissions, partnering with Natural Capital Partners in Europe and getting a Carbon Neutral Product certification. Result: In early 2020 we got to successfully launch to the market the Vertua low-carbon concrete range first in UK, and then we rolled it out to France, Germany and Colombia during 2020. In 2021 we extended the Vertua concrete offer to other markets like Mexico and Spain, so it is now being

		offered in more than 80% of our ready-mix markets. The demand is progresively increasing, and in 2021 year closing, we had 3% of low carbon ready-mix sales over the total ready-mix sales globally.
Supply chain and/or value chain	Yes	Climate Change plays and 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 2021; 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 2021 we reinforce our commitment by setting a target of 55% of the electricity coming from renewable in cement in 2030, aligned to SBTi verified scope 2 emissions target. Case study: Situation: CEMEX developed in 2021 a plan to evaluate the options to reduce its electricity intensity and the cost-effectiveness of the alternatives. Task: In 2021, we set a new target on renewable power for 2030 and verified the target with SBTi. Action: Since 2018, CEMEX UK signed a contract with Engie to supply 100% from renewable sources that has been renewed in June 2021. Result: We reduced our CO2 emissions over 100,000 tons/year since then. Regarding downstream services, within the same short timeframe, CEMEX provides different Green Building Certification Services, like ecoperating building certification, urban development consultancy, green building certification, bio-climatic architecture, energy efficient engineering together with sustainable materials and solutions development. During 2021 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 knows the challenge of climate change requires collaboration at several levels. We work with stakeholders, particularly governments and authorities, to develop frameworks that allow society to transition to a low-carbon world effectively and efficiently and to adapt to those consequences of climate change that cannot be avoided any more.

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 to different studies, like the IEA-CSI Technology Roadmap 2018 and IEA Net-Zero by 2050, one of the major contributors to our emissions reduction to achieve carbon neutrality will be the capture and storage or utilization of CO2 emitted from our processes. 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, like the agreement that we signed in Sept 2020 with Carbon Clean, a global leader in low-cost CO2 amine-based capture technology. CEMEX launched in late 2019 a focus group “CO2 Task Force” involving Operations, R&D, Sustainability, CEMEX Ventures, Logistics, Energy and regional representatives to streamline the analysis and participation in the different research. As a result, CEMEX is now participating in more than 30 innovation projects and aims to build a demonstration pilot in 5 of our facilities. Case study Situation: The major contributor to achieve our 2050 neutrality ambition is carbon capture, so CEMEX needed to get involved in capture research by partnering and consortiums’ participation. Task: The goal is to get a portfolio of cost-effective and scalable capture technologies, so we need to explore and get involved in the different alternatives. Action: CEMEX stablished is determined to be totally disruptive and started conversations with Synhelion. The radically new approach is based on replacing the use of fossil fuels in cement plants with high-temperature solar heat, and capturing 100 percent of the carbon emissions, which are then utilized as feedstock for fuel production, enabling cement manufacturing to achieve net-zero level. This is made possible by the unprecedented temperature levels of solar heat provided by Synhelion’s technology and its pioneering process to turn CO2 into synthetic drop-in fuels, such as kerosene, diesel, and gasoline. Result: CEMEX announced their collaboration in September 2020, and in early 2022, CEMEX and Synhelion announced the successful production of the world’s first solar clinker. cement plants.
Operations	Yes	CEMEX developed a very detailed low carbon transition plan for a short and medium-term time horizon and enhanced it in

		2021 to align it with the new SBTi Scope 1 target verified in 2021. The roadmap is developed for each site, including specific actions to achieve our 2030 target and our 2030 renewable electricity target and beyond, and 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 has been fully deployed in 2021. 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 already been linked to their remuneration and now also impacting their country EBITDA. Situation: CEMEX has a low carbon transition plan in place (CO2 Roadmap) that is being followed-up in a monthly basis. Task: CEMEX CEO wants to ensure that its low carbon transition plan is accomplished in a timely manner in all the sites at the scheduled pace. Action: In 2021 CEMEX designed and tested a methodology to impact the CVA results of the cement plants depending on their individual performance, the “CEMEX ETS”, that together to the link to remuneration will strengthen the accomplishment of the planned activities. Result: In 2021, we have started to monitor in a monthly basis the YTD performance vs.YTD goal for 100% of our cement sites. Example, Panama has a monthly/YTD target for Net kgCO2/cementitious ton, and it is compared to its monthly/YTD performance. The difference is multiplied by 60 USD/ton (2021 applied price to all regions) impacting its CVA.

C3.4

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

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Direct costs Indirect costs	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

	Capital expenditures Capital allocation Acquisitions and divestments Access to capital Assets	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 USD 30 per metric tonne of CO2 (average price, for details refer to C11 Carbon pricing) 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.

C3.5

(C3.5) In your organization’s financial accounting, do you identify spending/revenue that is aligned with your organization’s transition to a 1.5°C world?

Yes

C3.5a

(C3.5a) Quantify the percentage share of your spending/revenue that is aligned with your organization’s transition to a 1.5°C world.

Financial Metric

CAPEX

Percentage share of selected financial metric aligned with a 1.5°C world in the reporting year (%)

8.2

Percentage share of selected financial metric planned to align with a 1.5°C world in 2025 (%)

20

Percentage share of selected financial metric planned to align with a 1.5°C world in 2030 (%)

27

Describe the methodology used to identify spending/revenue that is aligned with a 1.5°C world

On July 12th, 2021, the EU Taxonomy regulation came into force and CEMEX started to report on this new requirement in the 2021 reporting cycle. The EU Taxonomy is a classification system establishing a list of environmentally sustainable economic activities that aims to reorient capital flows using a common language for different stakeholders. According to the EU Taxonomy, economic activity is deemed environmentally sustainable if it substantially contributes to at least one of the six environmental objectives, does no significant harm to any of the other five environmental objectives, and complies with minimum safeguards. In this 2021 reporting cycle, as per requirement of the EU Taxonomy, we have limited our reporting to the "eligibility" criteria but we have not reported yet on the alignment of these eligible activities to the Taxonomy thresholds, so the calculations included here has been calculated as follows, and do not represent our alignment to the EU taxonomy yet: CAPEX expended to decarbonize our operations, so CAPEX for mitigation, is monitored on an annual basis, and in 2021 the total climate-related mitigation CAPEX was 50.2 MM USD (disbursement). This CAPEX includes different projects, like Alternative Fuels increase to reduce fossil fuel usage, facilities to increase the cementitious share in our cements, reducing clinker content, refurbishments to improve the Heat Consumption of our kilns, increase the usage of decarbonated raw materials, scope 2 projects to supply renewable power, Waste Heat recovery and some fleet initiatives to reduce to a lower carbon transportation technology or fuel. The total expended amount is then divided by the total CAPEX expended in machinery and equipment = 609 MM USD (page 165 of our Integrated report), resulting in 8.2%

C4. Targets and performance

C4.1

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

Absolute target

Intensity target

C4.1a

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

Target reference number
Abs 1

Year target was set
2021

Target coverage
Company-wide

Scope(s)
Scope 3

Scope 2 accounting method

Scope 3 category(ies)
Category 11: Use of sold products

Base year
2020

Base year Scope 1 emissions covered by target (metric tons CO2e)

Base year Scope 2 emissions covered by target (metric tons CO2e)

Base year Scope 3 emissions covered by target (metric tons CO2e)
5,730,383.66

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)
5,730,383.66

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

Base year Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

32.97

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

32.97

Target year

2030

Targeted reduction from base year (%)

25

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

4,297,787.745

Scope 1 emissions in reporting year covered by target (metric tons CO2e)

Scope 2 emissions in reporting year covered by target (metric tons CO2e)

Scope 3 emissions in reporting year covered by target (metric tons CO2e)

4,146,055.17

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

4,146,055.17

% of target achieved relative to base year [auto-calculated]

110.5914426679

Target status in reporting year

New

Is this a science-based target?

Yes, and this target has been approved by the Science Based Targets initiative

Target ambition

Well-below 2°C aligned

Please explain target coverage and identify any exclusions

The reported emissions are related to the use, so combustion, of the traded coal and petcoke with 3rd parties. We purchase fossil fuels to trade them afterwards as part of our fossil fuels hedging strategy to supply our operations and as part of an agreement with 2 thermoelectric power plants in Mexico.
Exclusions do not apply in this category, so 100% of the emissions under this category were considered when we set this target.

Plan for achieving target, and progress made to the end of the reporting year

The emissions reported under this category correspond to the use of fossil fuels in the site of our customer. CEMEX has a hedging strategy to guarantee the coal and petcoke availability for its operations, and the excess volume is distributed to 3rd parties, and CEMEX has also a commitment to supply petcoke to two thermoelectric power plants in Mexico. The strategy is to reduce the hedged amount as we reduce our petcoke/coal demand according to our Alternative Fuels increase strategy, so the traded amount will also be reduced. Additionally, contracts to supply petcoke to the thermoelectric power plants (TE) expires in 2023 and 2028 respectively, and we will analyze its continuity. The reduction of the traded amount in 2021 was exceptional, so the target 2030 is still valid although aparently we have reached our target in 2021, but we the traded volumes are not constant every year except the agreement to supply to Thermoelectric power facilities (1.2 MM tons) which is more or less constant and means 60-75% of the total distributed volume.

List the emissions reduction initiatives which contributed most to achieving this 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

2021

Target coverage

Company-wide

Scope(s)

Scope 1
Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

Intensity metric

Metric tons CO2e per metric ton of cement

Base year

2020

Intensity figure in base year for Scope 1 (metric tons CO2e per unit of activity)

0.6592813323

Intensity figure in base year for Scope 2 (metric tons CO2e per unit of activity)

0.0574945179

Intensity figure in base year for Scope 3 (metric tons CO2e per unit of activity)

Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)

0.7167758502

% of total base year emissions in Scope 1 covered by this Scope 1 intensity figure

99.23

% of total base year emissions in Scope 2 covered by this Scope 2 intensity figure

94.18

% of total base year emissions in Scope 3 (in all Scope 3 categories) covered by this Scope 3 intensity figure

% of total base year emissions in all selected Scopes covered by this intensity figure

98.81

Target year

2030

Targeted reduction from base year (%)

22.1

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

0.5583683873

% change anticipated in absolute Scope 1+2 emissions

-17.92

% change anticipated in absolute Scope 3 emissions

0

Intensity figure in reporting year for Scope 1 (metric tons CO2e per unit of activity)

0.6409255695

Intensity figure in reporting year for Scope 2 (metric tons CO2e per unit of activity)

0.0563583469

Intensity figure in reporting year for Scope 3 (metric tons CO2e per unit of activity)

Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)

0.6972839165

% of target achieved relative to base year [auto-calculated]

12.304933962

Target status in reporting year

New

Is this a science-based target?

Yes, and this target has been approved by the Science Based Targets initiative

Target ambition

Well-below 2°C aligned

Please explain target coverage and identify any exclusions

Targets are company wide, but SBTi allows to exclude up to 5% of our S1+S2 emissions to set a target and we excluded the emissions in aggregates, ready-mix and asphalts, to align the denominator of the intensity target to the denominator considered in the Sectorial Decarbonization Approach methodology (cement) and after having confirmed with SBTi the validity of this approach. That is why target coverage is less than 100.0, although the target is company-wide.

Plan for achieving target, and progress made to the end of the reporting year

CEMEX´s CO2 Reduction Roadmap to meet our 2030 goal assesses the carbon mitigation potential that can be seized across each of our cement manufacturing sites, taking into consideration local challenges, regulations, materials supply, technical limitations, and market dynamics, among other decisive factors. Building on this roadmap, we intend to invest approximately US$600 million over ten years to reinforce our efforts in reducing emissions in our production processes. To this end, we aim to accelerate and replicate in new geographies the use of proven technologies that our operations have been employing successfully for the last 20 years and adding recent technologies that have great innovative potential as CO2 reduction levers. To additionally contribute to our carbon mitigation goals, we intend to reduce our indirect emissions by reaching 55% of electricity consumption in cement from clean energy sources.

In 2021 we achieved the largest annual S1 CO2 reduction in our company's history: 4.7% net CO2 emissions reduction per ton of cementitious material vs 2020, to reach 591 net kg CO2/ton (-29 net kg CO2 per ton vs 2020), meaning a gross scope 1 reduction of -2.8% year over year. We got this thanks to achieving our best performance ever in the use of alternative fuels, and clinker factor reduction.

Both S1+S2 combined had a reduction of -2.3% from 2020 to 2021.

List the emissions reduction initiatives which contributed most to achieving this target

Target reference number

Int 2

Year target was set

2021

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2 accounting method

Scope 3 category(ies)

Intensity metric

Metric tons CO2e per metric ton of cement

Base year

2020

Intensity figure in base year for Scope 1 (metric tons CO2e per unit of activity)

0.6592813323

Intensity figure in base year for Scope 2 (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3 (metric tons CO2e per unit of activity)

Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)

0.6592813323

% of total base year emissions in Scope 1 covered by this Scope 1 intensity figure

99.23

% of total base year emissions in Scope 2 covered by this Scope 2 intensity figure

% of total base year emissions in Scope 3 (in all Scope 3 categories) covered by this Scope 3 intensity figure

% of total base year emissions in all selected Scopes covered by this intensity figure

99.23

Target year

2030

Targeted reduction from base year (%)

20.33

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

0.5252494374

% change anticipated in absolute Scope 1+2 emissions

-14.77

% change anticipated in absolute Scope 3 emissions

0

Intensity figure in reporting year for Scope 1 (metric tons CO2e per unit of activity)

0.6409255695

Intensity figure in reporting year for Scope 2 (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3 (metric tons CO2e per unit of activity)

Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)

0.6409255695

% of target achieved relative to base year [auto-calculated]

13.695070729

Target status in reporting year

New

Is this a science-based target?

Yes, and this target has been approved by the Science Based Targets initiative

Target ambition

Well-below 2°C aligned

Please explain target coverage and identify any exclusions

The target coverage is equivalent to excluding the emissions in aggregates, ready-mix and asphalts in UK, to align the denominator of the intensity target to the denominator considered in the Sectorial Decarbonization Approach methodology and after having confirmed with SBTi the validity of this approach to claim for company-wide targets.

Emissions from aggregates, ready-mix and asphalt are not included in our target. They account for less than 1% of Scope 1 emissions.

Plan for achieving target, and progress made to the end of the reporting year

CEMEX´s CO2 Reduction Roadmap to meet our 2030 goal assesses the carbon mitigation potential that can be seized across each of our cement manufacturing sites, taking into consideration local challenges, regulations, materials supply, technical limitations, and market dynamics, among other decisive factors. Building on this roadmap, we intend to invest approximately US$600 million over ten years to reinforce our efforts in reducing emissions in our production processes. To this end, we aim to accelerate and replicate in new geographies the use of proven technologies that our operations have been employing successfully for the last 20 years and adding recent technologies that have great innovative potential as CO2 reduction levers. To additionally contribute to our carbon mitigation goals, we intend to reduce our indirect emissions by reaching 55% of electricity consumption in cement from clean energy sources by 2030.
In 2021 we achieved the largest annual S1 CO2 reduction in our company's history: 4.7% net CO2 emissions reduction per ton of cementitious material vs 2020, to reach 591 net kg CO2/ton (-29 net kg CO2 per ton vs 2020), meaning a gross scope 1 reduction of -2.8% year over year. We got this thanks to achieving our best performance ever in the use of alternative fuels, and clinker factor reduction.
Both S1+S2 combined had a reduction of -2.3% from 2020 to 2021.

List the emissions reduction initiatives which contributed most to achieving this target

---

Target reference number

Int 3

Year target was set

2021

Target coverage

Company-wide

Scope(s)

Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

Intensity metric

Metric tons CO2e per metric ton of cement

Base year

2020

Intensity figure in base year for Scope 1 (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 2 (metric tons CO2e per unit of activity)

0.0574945179

Intensity figure in base year for Scope 3 (metric tons CO2e per unit of activity)

Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)

0.0574945179

% of total base year emissions in Scope 1 covered by this Scope 1 intensity figure

% of total base year emissions in Scope 2 covered by this Scope 2 intensity figure

94.18

% of total base year emissions in Scope 3 (in all Scope 3 categories) covered by this Scope 3 intensity figure

% of total base year emissions in all selected Scopes covered by this intensity figure

94.18

Target year

2030

Targeted reduction from base year (%)

42.42

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

0.0331053434

% change anticipated in absolute Scope 1+2 emissions

-3.15

% change anticipated in absolute Scope 3 emissions

0

Intensity figure in reporting year for Scope 1 (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 2 (metric tons CO2e per unit of activity)

0.0563583469

Intensity figure in reporting year for Scope 3 (metric tons CO2e per unit of activity)

Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)

0.0563583469

% of target achieved relative to base year [auto-calculated]

4.6585053558

Target status in reporting year

New

Is this a science-based target?

Yes, and this target has been approved by the Science Based Targets initiative

Target ambition

Well-below 2°C aligned

Please explain target coverage and identify any exclusions

The target coverage is equivalent to excluding the emissions in aggregates and ready-mix, to align the denominator of the intensity target to the denominator considered in the Sectorial Decarbonization Approach methodology and after having confirmed with SBTi the validity of this approach, being able to claim for company-wide targets.

Emissions from aggregates and ready-mix account for 6% of Scope 2 emissions (S1+S2 combined exclude less than 5% that is the maximum allowed threshold).

Plan for achieving target, and progress made to the end of the reporting year

We have a public commitment to reach 55% or renewable power consumed in our operatios by 2030, which is aligned to the SBTi Scope 2 target validated in 2021. To achieve this target, CEMEX built a CO2 Reduction Roadmap specific for scope 2, where we are including: building or contracting new renewable power capacity to supply our facilities, for example, the 20MW solar facility we have contracted in 2021 in Dominican Republic, and also plan to purchase energy attributes (RECs, CELs) to guarantee the

origin of our renewable electricy acquired from the grid in different geographies, like we are doing in UK and Poland.
In 2021, our renewable power consumption increased from 28% in 2020 to 30% in 2021, and that is why our intensity decreased. The major contributor to this reduction has been the contracted solar facility in Dominican Republic (20MW).

List the emissions reduction initiatives which contributed most to achieving this target

---

Target reference number

Int 4

Year target was set

2018

Target coverage

Business division

Scope(s)

Scope 1

Scope 2 accounting method

Scope 3 category(ies)

Intensity metric

Metric tons CO2e per metric ton of cement

Base year

1990

Intensity figure in base year for Scope 1 (metric tons CO2e per unit of activity)

0.80091

Intensity figure in base year for Scope 2 (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3 (metric tons CO2e per unit of activity)

Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)

0.80091

% of total base year emissions in Scope 1 covered by this Scope 1 intensity figure

99.63

% of total base year emissions in Scope 2 covered by this Scope 2 intensity figure

% of total base year emissions in Scope 3 (in all Scope 3 categories) covered by this Scope 3 intensity figure

% of total base year emissions in all selected Scopes covered by this intensity figure

99.63

Target year

2030

Targeted reduction from base year (%)

40.69

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

0.475019721

% change anticipated in absolute Scope 1+2 emissions

-32.66

% change anticipated in absolute Scope 3 emissions

Intensity figure in reporting year for Scope 1 (metric tons CO2e per unit of activity)

0.591

Intensity figure in reporting year for Scope 2 (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3 (metric tons CO2e per unit of activity)

Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)

0.591

% of target achieved relative to base year [auto-calculated]

64.4112492843

Target status in reporting year

Underway

Is this a science-based target?

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

Target ambition

Please explain target coverage and identify any exclusions

The target just includes cement S1 NET emissions. The main differences vs. Int2 target validated by SBTi are:
1. On-site power generation is excluded, as per definition of the GCCA CO2 protocol guidelines
2. Emissions are expressed in net, so excluding all alternative fuels used
Target coverage: we are calculating the Net S1 emissions vs. Total gross S1 emissions for the cement division, and coverage is so high because the AF substitution in 1990 was very low (0.6%)

Plan for achieving target, and progress made to the end of the reporting year

CEMEX´s CO2 Reduction Roadmap to meet our 2030 goal assesses the carbon mitigation potential that can be seized across each of our cement manufacturing sites, taking into consideration local challenges, regulations, materials supply, technical limitations, and market dynamics, among other decisive factors. Building on this roadmap, we intend to invest approximately US$600 million over ten years to reinforce our efforts in reducing emissions in our production processes. To this end, we aim to accelerate and replicate in new geographies the use of proven technologies that our operations have been employing successfully for the last 20 years and adding recent technologies that have great innovative potential as CO2 reduction levers. To additionally contribute to our carbon mitigation goals, we intend to reduce our indirect emissions by reaching 55% of electricity consumption in cement from clean energy sources by 2030.
In 2021 we achieved the largest annual S1 CO2 reduction in our company's history: 4.7% net CO2 emissions reduction per ton of cementitious material vs 2020, to reach 591 net kg CO2/ton (-29 net kg CO2 per ton vs 2020), meaning a gross scope 1 reduction of -2.8% year over year. We got this thanks to achieving our best performance ever in the use of alternative fuels, and clinker factor reduction.
Both S1+S2 combined had a reduction of -2.3% from 2020 to 2021.

List the emissions reduction initiatives which contributed most to achieving this target

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
Net-zero target(s)
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: energy carrier
Electricity

Target type: activity
Consumption

Target type: energy source
Renewable energy source(s) only

Base year
2018

Consumption or production of selected energy carrier in base year (MWh)
7,715,635.98122214

% share of low-carbon or renewable energy in base year
26

Target year
2030

% share of low-carbon or renewable energy in target year
55

% share of low-carbon or renewable energy in reporting year
30

% of target achieved relative to base year [auto-calculated]
13.7931034483

Target status in reporting year
Revised

Is this target part of an emissions target?
Yes, the consumption of energy from renewable sources decrease the company's CO2 indirect emissions (Scope 2), so it is related to Int1 and Int3.

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

Please explain target coverage and identify any exclusions

Amount of power consumed from renewable energy in cement plants (in kWh), including onsite power (impacting Scope 1), WHR (impacting Scope 1) and externally supplied power (impacting Scope 2). 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: 55%; 2020: 30%

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

Plan for achieving target, and progress made to the end of the reporting year

By 2030, CEMEX aims to source 55% of its global electricity consumption in cement from clean energy sources, almost double the current level. This target will require a combination of plant-specific solutions due to differences in the ability to generate clean electricity efficiently and cost-effectively as well as differences in the local regulatory and economic environments near each plant. Advancing the use of clean electricity in CEMEX's cement operations complements the company's ongoing efforts to achieve its zero-emissions ambition. Also, it makes good business sense given that the price of clean electricity is competitive in many markets against the price of fossil fuel generation.

In 2021, CEMEX continued leading the industry in clean electricity with close to 30% clean electricity consumption in our cement plants.

List the actions which contributed most to achieving this target

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

2021

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)

Base year

2021

Figure or percentage in base year

23,000,000

Target year

2030

Figure or percentage in target year

25,000,000

Figure or percentage in reporting year

23,000,000

% of target achieved relative to base year [auto-calculated]

0

Target status in reporting year

New

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 + the waste we managed in our recycling facilities.

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

Please explain target coverage and identify any exclusions

The scope is company-wide and it aims to increase our management of waste-derived sources from other industries in absolute value; it includes alternative fuels and waste-derived cementitious materials consumed in cement and concrete as well as alternative raw materials consumed in raw meal (raw material to produce clinker), among others.

Plan for achieving target, and progress made to the end of the reporting year

As part of our Future in Action program, we aim to increase the Alternative Fuels usage and the Alternative Raw Materials consumption in our operations. As of 2021, we managed 23 million tons of waste at our operations.

List the actions which contributed most to achieving this target

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

86

% of target achieved relative to base year [auto-calculated]

60

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 target coverage and identify any exclusions

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.

Plan for achieving target, and progress made to the end of the reporting year

In 2021 we updated the proximity study with Birdlife international to update the picture of how many quarries are located in "high biodiversity value areas" or nearby areas. We are planning to perform a Biodiversity Action and Management Plan in all the identified quarries, as well as rolling out the 3rd party voluntary certification of all sites considered critical from the community or revenue perspective.

List the actions which contributed most to achieving this target

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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

90

Figure or percentage in reporting year

72

% of target achieved relative to base year [auto-calculated]

60.8695652174

Target status in reporting year

Revised

Is this target part of an emissions target?

It is indirectly related with the Scope 3 Absolute target. In 2021, we brought forward from 2030 to 2025 our commitment to assess the sustainability practices of at least 80% of the critical suppliers spend and we established a new more ambitious 2030 goal of 90% of the critical group.

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

Please explain target coverage and identify any exclusions

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 72% of the total procurement spend.

Plan for achieving target, and progress made to the end of the reporting year

In 2021, we increased the number of suppliers evaluated, reaching 72% of the critical group. During the year, we increased our efforts to evaluate a higher group of critical suppliers. These suppliers are those business partners who could have a significant impact on our core businesses; in particular, those suppliers with the highest spend or who could affect the continuity of our operations, including health, safety, and environmental risks.

List the actions which contributed most to achieving this target

Target reference number

Oth 4

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)

Other, please specify

Other, please specify

Annual sales from cement and ready-mix concrete products with outstanding sustainable attributes (%)

Target denominator (intensity targets only)

Other, please specify

Total annual sales from cement and ready-mix concrete products (it is a %, not strictly an intensity but it has a denominator to build the percentage)

Base year

2018

Figure or percentage in base year

43

Target year

2030

Figure or percentage in target year

50.1

Figure or percentage in reporting year

56

% of target achieved relative to base year [auto-calculated]

183.0985915493

Target status in reporting year

Achieved

Is this target part of an emissions target?

Yes, it is directly related to our scope 1 emissions reduction as it includes all low carbon products being developed and marketed.

Is this target part of an overarching initiative?

No, it’s not part of an overarching initiative

Please explain target coverage and identify any exclusions

Target monitors for our cement and ready-mix businesses the % of annual sales with products with outstanding sustainable attributes

Plan for achieving target, and progress made to the end of the reporting year

List the actions which contributed most to achieving this target

The main action was to increase the sale of our Vertua products; in 2021 customer receptivity to purchase vertua cement has been very favorable; Vertua® cement volumes have grown almost 50% since its global launch in March.

C4.2c

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

Target reference number

NZ1

Target coverage

Company-wide

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

Int1
Int2
Int3

Target year for achieving net zero

2050

Is this a science-based target?

Yes, we consider this a science-based target, and the target is currently being reviewed by the Science Based Targets initiative

Please explain target coverage and identify any exclusions

In 2020 we set a new target to deliver Net-Zero CO2 concrete by 2050 to all our customers in a cradle to customer gate approach, so including all S1+S2+S3 emissistions (this particular target covers S1+S2 emissions, see NZ2 for Scope 3 coverage). We also signed the Business Ambition for 1.5ºC and the Race to Zero commitment in July 2021.

This year we have already submitted our Net-Zero Scope 1 and Scope 2 intensity target to SBTi for it to be verified (we are in the waiting list to complete this process this year)

Do you intend to neutralize any unabated emissions with permanent carbon removals at the target year?

Yes

Planned milestones and/or near-term investments for neutralization at target year

Our strategy to realize the Net-Zero target is described in our “Future in Action” program: Future in Action - CEMEX. We provide a summary.
Future in Action focuses on significantly reducing direct and indirect CO2 emissions from our operations, as well as providing sustainable and innovative solutions for society.
The program concentrates in four pillars:
Sustainable Products & Solutions
Decarbonizing our Operations
Innovation & Partnerships
Promoting a Green Economy

Our near-term strategy is focused first on decarbonizing our operations through maximizing the implementation of the “traditional/proved levers” mainly in the cement operations:
Increasing the use of alternative fuels.
Reducing the clinker factor.
Optimizing thermal efficiency in our kilns.
Using decarbonated raw materials.

In addition, several actions are being already taken to realize our Scope 2 and Scope 3 proposed near-term goals:
Power our cement plants with renewable energy sources.
We joined the First Mover Coalition and committed to a near-term goal to decarbonize our fleet to facilitate the development of new technologies.
Already working with all our suppliers to receive low-carbon materials in a low-carbon transport mode.
Already switching fossil fuels to alternative fuels to reduce the well-to-tank emissions of the provided fuels.
Do not trade fossil fuels.
Additionally, other measures to reduce our Scope 3 emissions are also being taken, like supplier engagement programs to provide lower footprint raw materials.

All these levers are planned to be extended in the long run to realize our 2050 Net-Zero target ambition, together with the “innovation and partnerships”, which will be fundamental to achieve our Long-Term goal.
In this regard, CEMEX is in the forefront collaborating in several R&D projects in the cement business and in ready-mix. Examples of this collaborations are: Investing and Exploring Carbon Capture, Use, and Storage Technologies, development of a ground-breaking technology designed to harness solar energy to fully decarbonize the clinker manufacturing process, Low Emissions Intensity Lime and Cement 2 (LEILAC 2) project, LEILAC 1, among others.

Vertua: By launching our new product line called Vertua, the first Net-Zero CO2 Concrete solution in our industry, we made important progress towards our 2050 net-

zero goal.

All these measures are fully aligned to the sectorial GCCA Net-Zero roadmap. Further details in: Getting to Net Zero (gccassociation.org).

Planned actions to mitigate emissions beyond your value chain (optional)

CEMEX voluntary started to provide support to several projects by purchasing the carbon credits they generate, with the aim of compensating the remaining emissions of our range of low carbon concrete products, “Vertua”. Example in UK, where we provide CarbonNeutral ® products by supporting “nature-based-projects”: https://www.cemex.co.uk/vertua-low-carbon-concrete.
We do not count these actions towards progress of abatement targets.

Target reference number

NZ2

Target coverage

Company-wide

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

Abs1

Target year for achieving net zero

2050

Is this a science-based target?

Yes, we consider this a science-based target, and the target is currently being reviewed by the Science Based Targets initiative

Please explain target coverage and identify any exclusions

In 2020 we set a new target to deliver Net-Zero CO2 concrete by 2050 to all our customers in a cradle to customer gate approach, so including all S1+S2+S3 emissisions (this particular target covers all categories of Scope 3 emissions (except for those categories which are not considered “relevant” in the “Cement Sector Scope 3 GHG Accounting and Reporting Guidance” developed by WBCSD.) (See NZ1 for S1+S2 coverage).
Emissions from aggregates and ready-mix from category 3 are not included in the target. Furthermore, emissions from Categories 2,5,6,7,8,10,12,13,14 and 15 are not included in the target (they are not considered "relevant" in the "Cement Sector Scope 3 GHG Accounting and Reporting Guidance"). A screening of all Categories of Scope 3 emissions has been made and all exlusions account for less than 10% of total Scope 3 emissions, which is the SBTi requirement.

Do you intend to neutralize any unabated emissions with permanent carbon removals at the target year?

Yes

Planned milestones and/or near-term investments for neutralization at target year

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In addition, several actions are being already taken to realize our Scope 2 and Scope 3 proposed near-term goals:
Power our cement plants with renewable energy sources.
We joined the First Mover Coalition and committed to a near-term goal to decarbonize our fleet to facilitate the development of new technologies.
Already working with all our suppliers to receive low-carbon materials in a low-carbon transport mode.
Already switching fossil fuels to alternative fuels to reduce the well-to-tank emissions of the provided fuels.
Do not trade fossil fuels.
Additionally, other measures to reduce our Scope 3 emissions are also being taken, like supplier engagement programs to provide lower footprint raw materials.

All these levers are planned to be extended in the long run to realize our 2050 Net-Zero target ambition, together with the “innovation and partnerships”, which will be fundamental to achieve our Long-Term goal.
In this regard, CEMEX is in the forefront collaborating in several R&D projects in the cement business and in ready-mix. Examples of this collaborations are: Investing and Exploring Carbon Capture, Use, and Storage Technologies, development of a ground-breaking technology designed to harness solar energy to fully decarbonize the clinker manufacturing process, Low Emissions Intensity Lime and Cement 2 (LEILAC 2) project, LEILAC 1, among others.

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zero goal.

All these measures are fully aligned to the sectorial GCCA Net-Zero roadmap. Further details in: Getting to Net Zero (gccassociation.org).

Planned actions to mitigate emissions beyond your value chain (optional)

CEMEX voluntary started to provide support to several projects by purchasing the carbon credits they generate, with the aim of compensating the remaining emissions of our range of low carbon concrete products, “Vertua”. Example in UK, where we provide CarbonNeutral ® products by supporting “nature-based-projects”: https://www.cemex.co.uk/vertua-low-carbon-concrete.
We do not count these actions towards progress of abatement targets.

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	64	1,739,821
To be implemented*	30	499,437
Implementation commenced*	49	1,425,169
Implemented*	26	271,499
Not to be implemented	5	314,713

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)

197,651

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

Voluntary/Mandatory

Voluntary

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

11,672,000

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

13,457,000

Payback period

1-3 years

Estimated lifetime of the initiative

Ongoing

Comment

Alternative Fuel (AF) projects to increase percentage of substitution by displacing primary fossil fuels. AF in our kilns to reduce scope 1 emissions. 11 new projects were completed along 2021, 6 in different locations in Europe and 2 in Mexico which consisted in hydrogen injection technology, 8 in total for this technology. 2 more projects to increase RDF in Mexico plants (Merida and Monterrey) and 1 more in Poland to increase AF rate to 95%. The shown figures represent annual savings.

Initiative category & Initiative type

Energy efficiency in production processes
Machine/equipment replacement

Estimated annual CO2e savings (metric tonnes CO2e)

44,313

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

Voluntary/Mandatory

Mandatory

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

11,146,000

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

43,128,000

Payback period

4-10 years

Estimated lifetime of the initiative

Ongoing

Comment

5 proyects in total: 1 involving the instalation of solid recovered fuel dosing system in Czech Republic, 1 proyect involving equipment modernization in Poland, 1 mobile crusher installation in Philippines, 1 solid waste shredder in Mexico and 1 kiln false air corrections in Jamaica. The figures represent annual savings.

Initiative category & Initiative type

Energy efficiency in production processes
Product or service design

Estimated annual CO2e savings (metric tonnes CO2e)

23,230

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

Voluntary/Mandatory

Voluntary

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

427,000

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

1,090,000

Payback period

1-3 years

Estimated lifetime of the initiative

Ongoing

Comment

Projects in SCAC region to reduce the clinker content in cement by displacing it with cementitious.

Initiative category & Initiative type

Energy efficiency in production processes
Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)

1,829

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

Voluntary/Mandatory

Voluntary

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

210,000

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

1,886,000

Payback period

4-10 years

Estimated lifetime of the initiative

Ongoing

Comment

2 projects, one in Croatia and another in Czech Republic to reduce specific heat consumption by changing the raw meal composition (low temperature clinker).

Initiative category & Initiative type

Waste reduction and material circularity

Product/component/material recycling

Estimated annual CO2e savings (metric tonnes CO2e)

3,144

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

Voluntary/Mandatory

Voluntary

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

131,000

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

525,000

Payback period

4-10 years

Estimated lifetime of the initiative

Ongoing

Comment

1 proyect in Spain to use waste as decarbonated raw material.

Initiative category & Initiative type

Low-carbon energy generation

Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)

1,333

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

119,000

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

689,000

Payback period

4-10 years

Estimated lifetime of the initiative

21-30 years

Comment

1 Solar PV Project in Germany.

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	Best practice sharing: CEMEX shares the success stories in the official meetings, Meeting Sustainability Regional Coordinations, Environmental Experts meetings, CO2 Taskforce meeting and CEMEX business units share success stories via intranet tools (teams platform). In 2020 we started a competition to evaluate environmental and climate related best practices and we recognized those projects with the highest innovation component, possibility of replication and impact and we have been following up during 2021 .
Partnering with governments on technology development	CEMEX constantly participates in a number of R+D projects that are partly funded by governments, mainly EU funding (H2020 and others) and DOE funding (USA); 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 and those targets are linked to the variable compensation. 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
Internal price on carbon	Starting in late 2020, we designed a mechanism to include the CO2 cost not only in our investment decisions, but also in any operational daily decision, as a CO2 price has been set for all geographies, regardless of whether a regulation on carbon in place. The price applied in 2021 for the non-regulated countries (all except Europe and California) is 24 USD/CO2 ton (reference: carbon price California), and for Europe the Best estimate of the EU ETS (60 USD/t in 2021). A price forecast is done for each geography for the next 10 years, but it is updated on a yearly basis. The performace of each operation is compared to its yearly target and the benefit or loss is reflected in its CVA. During 2021 we are calculating the impact for information purposes, but from 1st of January 2022, it will impact each operation results (CVA)
Marginal abatement cost curve	Starting in early 2021, all the investments decisions are made based on its abatement curve. During 2021 monthly meetings, all countries presented to the Exco in a monthly basis their abatement curves for all the projects to be executed in the current year and in the following year.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products.

Level of aggregation

Group of products or services

Taxonomy used to classify product(s) or service(s) as low-carbon

Other, please specify

Global Warming Potential for concrete products (A1-A3) with our proprietary CO2 footprint tool, which has been verified by DNV to be aligned with ISO14067, EN15804 and PCR 2019:14, standards to calculate impacts based on Life Cycle Assessment (LCA)

Type of product(s) or service(s)

Cement and concrete

Other, please specify

Concrete

Description of product(s) or service(s)

Vertua low carbon range of CONCRETE products emissions are calculated with the GWP of each supplied concrete. To calculate the avoided emissions, we use an "attributional estimation approach", so we measure the difference in GWP of the low-carbon product and a reference product (baseline product is defined as a concrete made with Type I cement and no admixtures in each geography).

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Yes

Methodology used to calculate avoided emissions

Other, please specify

"Attributional estimation approach", so difference in GWP of the low-carbon product and a reference product or service (baseline product is defined as a concrete made with Type I cement and no admixtures in each geography)

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Cradle-to-gate

Functional unit used

Providing a m3 of low carbon concrete compared to a m3 of base concrete (made with Type I cement and no admixtures)

Reference product/service or baseline scenario used

m3 of baseline concrete made with Type I cement, which has a limited quantity of Supplementary Cementitious Materials, and no admixtures

Life cycle stage(s) covered for the reference product/service or baseline scenario

Cradle-to-gate

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

105

Explain your calculation of avoided emissions, including any assumptions

The average baseline emissions are 350 kgCO2/m3 and the indicated CO2 avoided emissions correspond to the minimun threshold defined for a product to be considered

low carbon, which is 30% (Vertua classic concrete), meaning 105 kgCO2/m3 of emissions avoided for the distributed products. It is worth to mention that this is the minimum saving, because our Vertua Ultra-Zero concrete reach at least a reduction of 70% per m3 compared to the baseline concrete, that means a reduction of 254 kgCO2/m3, and we are afterwards compensating the remaining emissions with carbon credits from the voluntary market, so savings considering compensation of the remainig emissions are up to 350 kgCO2/m3

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

2.36

Level of aggregation

Group of products or services

Taxonomy used to classify product(s) or service(s) as low-carbon

Other, please specify

GNR (Getting the Number Right) GCCA database for Global Cem Type I used as the reference product and product emissions are calculated with GCCA cement CO2 protocol (approved by GHG protocol to measure net direct emissions in cement)

Type of product(s) or service(s)

Cement and concrete

Other, please specify

Cement

Description of product(s) or service(s)

tons of low carbon cement (Vertua cement)

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Yes

Methodology used to calculate avoided emissions

Other, please specify

Product emissions are calculated with GCCA cement CO2 protocol (approved by GHG protocol to measure net direct emissions in cement) compared to a reference product from GNR (Getting the Number Right) GCCA database for Global Cem Type I

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Other, please specify

Direct emissions (Scope 1 emissions)

Functional unit used

Providing a metric ton of low carbon cement compared to a metric ton of a base cement (Type I)

Reference product/service or baseline scenario used

Global Average of Cement Type I from GNR (Getting the Number Right) GCCA database used as reference product (Net emissions - Net kgCO2/cement type I)

Life cycle stage(s) covered for the reference product/service or baseline scenario

Other, please specify

Net direct emissions (Scope 1 emissions), so it is limited to "production emissions" measured with the GCCA cement CO2 protocol at site and product level

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

206

Explain your calculation of avoided emissions, including any assumptions

The reference product is 822 Net kgCO2/cement and the actual emissions are calculated with the GCCA cement CO2 protocol for each product. To calculate the avoided emissions we used the minimum threshold for a product to be considered low-carbon cement, which is 25% emissions reduction, so this means that the calculation is conservative, because we have also sales of low carbon cements reducing 40% or more our Net direct emissions compared to the reference product. 25% * 822 = 206 avoided emissions provided figure

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

9.02

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-calciner	60

C5. Emissions methodology

C5.1

(C5.1) Is this your first year of reporting emissions data to CDP?

No

C5.1a

(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

Row 1

Has there been a structural change?

Yes, a divestment

Name of organization(s) acquired, divested from, or merged with

Buñol White cement facility was divested in July 2021 and sold to CIMSA. https://www.cemex.com/full-story/-/asset_publisher/FRPW43WCYckA/content/cemex-closes-divestment-of-its-bu-c3-b1ol-white-cement-plant-and-part-of-its-white-cement-business

Details of structural change(s), including completion dates

Buñol White cement facility was sold to CIMSA in July 2021. The sale process closed on July 9th 2021.

C5.1b

(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

	Change(s) in methodology, boundary, and/or reporting year definition?
Row 1	No

C5.1c

(C5.1c) Have your organization's base year emissions been recalculated as result of the changes or errors reported in C5.1a and C5.1b?

	Base year recalculation	Base year emissions recalculation policy, including significance threshold
Row 1	Yes	As set out in the Greenhouse Gas Protocol, CEMEX has a base year emissions recalculation policy in place to retroactively recalculate emissions should a significant structural change, like an acquisition or a divestment occurs within our boundary. As per sectorial agreement, when a CEMENT operation is divested and acquired by other peer, we need to deduct its emissions from our baseline, and they need to include it to fairly track the progress and vice versa, so GHG inventories must be recalculated. Additionally, we use the threshold for significance stated in the GHG protocol, 5%, but it does not include organic growth, closure of facilities, or when emissions change from one Scope to another, as they continue to be within our emissions inventory.

C5.2

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

Scope 1

Base year start
January 1, 2020

Base year end
December 31, 2020

Base year emissions (metric tons CO2e)
37,188,532.39

Comment
2020 emissions have been adjusted for recent divestments (Buñol White)

Scope 2 (location-based)

Base year start
January 1, 2020

Base year end
December 31, 2020

Base year emissions (metric tons CO2e)
3,468,832.56

Comment
2020 emissions have been adjusted for recent divestments (Buñol White)

Scope 2 (market-based)

Base year start
January 1, 2020

Base year end
December 31, 2020

Base year emissions (metric tons CO2e)
3,417,216.93

Comment
2020 emissions have been adjusted for recent divestments (Buñol White)

Scope 3 category 1: Purchased goods and services

Base year start
January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

5,052,651.028

Comment

Cradle -to-gate emissions of purchased clinker and cement from 3rd parties supplied to our businesses.

Scope 3 category 2: Capital goods

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

164,443.224

Comment

This category is NOT considered “relevant” in the “Cement Sector Scope 3 GHG Accounting and Reporting Guidance” developed by WBCSD. To illustrate the irrelevance of this category, we did a screening calculation using the “Average spend method” indicated in the GHG protocol – scope 3 emissions. FY2020 CEMEX capital expenditure = 517 Million$ (517 Million$ = 25 Million$ buildings and 482 Million$ in machinery and equipment (mainly for the maintenance of the existing assets). Considering an emission factor of 318 tonsCO2e/Million $ (reference in the Scope 3 cement guideline from the Japanese Environment Agency) we get a total of 164,500 tons of CO2e, which means less than 0.3% of the total S1+S2+S3 emissions.

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

1,955,447.136

Comment

Well-to-Tank emissions of purchased fuels in our cement, aggregates and ready-mix businesses.

Scope 3 category 4: Upstream transportation and distribution

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

1,689,144.898

Comment

Well-to-Wheel emissions derived from the transportation of raw materials.

Scope 3 category 5: Waste generated in operations

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

1,862

Comment

According to the “Cement Sector Scope 3 GHG Accounting and Reporting Guidance” developed by WBCSD, cement production processes generate almost no waste. Nevertheless, we performed a screening with "The Scope 3 Evaluator" developed by GHG Protocol&Quantis, and based on the estimate expenditure in our cement facilities, emissions account for 1,862 tons of CO2e, so they are negligible. Additionally, for ready mix facilities, the concrete not used by customers is returned to our operations, and it is used or processed onsite (own reclycling facilities), so the emissions are already included in our S1+S2 inventories (fuel or electricity consumption)

Scope 3 category 6: Business travel

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

33,188.25

Comment

Emissions from business travels from commercial team and executives. This category is not considered “relevant” in the “Cement Sector Scope 3 GHG Accounting and Reporting Guidance” developed by WBCSD.

Scope 3 category 7: Employee commuting

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

29,283.75

Comment

Emissions arising from employee commuting. This category is not considered “relevant” in the “Cement Sector Scope 3 GHG Accounting and Reporting Guidance” developed by WBCSD.

Scope 3 category 8: Upstream leased assets

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

0

Comment

Our company does not have leased operations, and that's the reason why our emissions are 0. The leased fleet is included in Categories 4 and 9.

Scope 3 category 9: Downstream transportation and distribution

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

2,140,578.519

Comment

Land and maritime transportation of all our sold products with CEMEX-controlled transport. Also includes emissions derived from the aggregates and Ready-Mix volumes transported directly by our customers (non-controlled by CEMEX distribution).

Scope 3 category 10: Processing of sold products

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

237,258.343

Comment

Emissions from cement processing for its conversion to Ready-Mix. This category is not considered “relevant” in the “Cement Sector Scope 3 GHG Accounting and Reporting Guidance” developed by WBCSD. The "GHG Accounting and Reporting guideline" for the cement sector, regards cement as an intermediate product, and recognize that identifying the end use of intermediate products is very difficult.
In any case, we performed the emissions screening assuming that all our cement is processed to be transformed to Ready-Mix. Part of the cement we produce (intermediate product), a 21%, is processed in our own Ready-Mix facilities, so the emissions associated to the processing to transform it to Ready-Mix are already considered in our S1+S2 emisisons. For the cement sold to our customers and processed by them, we use a general rate of 11 kWh/m3 provided in the aforementioned guideline as a proxy.

Scope 3 category 11: Use of sold products

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

5,730,383.665

Comment

The reported emissions are related to the use, so combustion, of the coal and petcoke that CEMEX trades with 3rd parties.

Scope 3 category 12: End of life treatment of sold products

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

347,095.35

Comment

End-of-life treatment of sold products. The Scope 3 standard identifies producers of “intermediate products.” Companies producing intermediate products do not have to report Categories 11 and 12. Identifying the end use of intermediate products is very difficult. In the "GHG Accounting and Reporting guideline" for the cement sector, regards cement as an intermediate product. Therefore, companies do not have to report these categories.
Thus, to perform the emissions screening under this category we focus in Ready-Mix; we assume that ALL sold concrete is demolished at the end of its lifetime and then processed to be recycled (30% recycling rate, higher than the actual one to be

conservative), using Ecoinvent Global Emission Factors v.3.7.1. for electricity for crushing and material loading&movement and sorting.
The "re-carbonation" rate, recognized by IPCC, increase when concrete is demolished but it is not included here to be conservative.

Scope 3 category 13: Downstream leased assets

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

0

Comment

Our company does not have leased operations, and that's the reason why our emissions are 0. The leased fleet is included in Categories 4 and 9.

Scope 3 category 14: Franchises

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

0

Comment

CEMEX is not a franchisor, and that's the reason why our emissions are 0.

Scope 3 category 15: Investments

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

0

Comment

We do not have operation of investments (including equity and debt investments and project finance) in the base year that are not included in Scope 1 or 2.

Scope 3: Other (upstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3: Other (downstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

C5.3

(C5.3) 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, "The Scope 3 Evaluator" developed by GHG Protocol&Quantis, and econinvent Emission Factors, depending on the reported category.

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)

38,399,669.5

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

3,432,330.8

Scope 2, market-based (if applicable)

3,523,001.8

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

Corporate offices buildings

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

The emissions are not included because they are not relevant. To demonstrate the irrelevance of this facilities, we did a screening using the GHG protocol Scope 3 evaluator tool (https://quantis-suite.com/Scope-3-Evaluator/) and the Scope 1+ Scope 2 emissions derived from the corporate offices are less than 0.018% of the total reported Scope 1 + Scope 2 emissions (7,339 tons of CO2/year disclosed as follows: Scope 1 = 2,415 and Scope 2 = 4,923 tons of CO2)

Estimated percentage of total Scope 1+2 emissions this excluded source represents

0

Explain how you estimated the percentage of emissions this excluded source represents

The emissions are not included because they are not relevant. To demonstrate the irrelevance of this facilities, we did a screening using the GHG protocol Scope 3 evaluator tool (https://quantis-suite.com/Scope-3-Evaluator/) and the Scope 1+ Scope 2 emissions derived from the corporate offices are less than 0.018% of the total reported Scope 1 + Scope 2 emissions (7,339 tons of CO2/year disclosed as follows: Scope 1 = 2,415 and Scope 2 = 4,923 tons of CO2)

Source

Mortar and Admixtures facilities

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

The emissions are not included because they are not relevant. To demonstrate the irrelevance of this facilities, we did a screening using the GHG protocol Scope 3 evaluator tool (https://quantis-suite.com/Scope-3-Evaluator/) and the Scope 1+ Scope 2 emissions derived from the "manufacturing" facilities are less than 0.036% of the total reported Scope 1 + Scope 2 emissions (15,025 tons of CO2/year split as follows: Scope 1 = 7,847 and Scope 2 = 7,179 tons of CO2)

Estimated percentage of total Scope 1+2 emissions this excluded source represents

0

Explain how you estimated the percentage of emissions this excluded source represents

The emissions are not included because they are not relevant. To demonstrate the irrelevance of this facilities, we did a screening using the GHG protocol Scope 3 evaluator tool (https://quantis-suite.com/Scope-3-Evaluator/) and the Scope 1+ Scope 2 emissions derived from the "manufacturing" facilities are less than 0.036% of the total reported Scope 1 + Scope 2 emissions (15,025 tons of CO2/year split as follows: Scope 1 = 7,847 and Scope 2 = 7,179 tons of CO2)

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

Emissions in reporting year (metric tons CO2e)

4,352,857.877

Emissions calculation methodology

Average data method

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

0

Please explain

Purchases of clinker and cement from third parties are multiplied with generic emission factors from GNR (Getting the Numbers Right) Database.

Capital goods

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO2e)

244,279.296

Emissions calculation methodology

Average spend-based method

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

0

Please explain

This category is NOT considered “relevant” in the “Cement Sector Scope 3 GHG Accounting and Reporting Guidance” developed by WBCSD. To illustrate the irrelevance of this category, we did a screening calculation using the “Average spend method” indicated in the GHG protocol – scope 3 emissions. FY2020 CEMEX capital expenditure = 517 Million$ (517 Million$ = 25 Million$ buildings and 482 Million$ in machinery and equipment (mainly for the maintenance of the existing assets). Considering an emission factor of 318 tonsCO2e/Million $ (reference in the Scope 3 cement guideline from the Japanese Environment Agency) we get a total of 164,500 tons of CO2e, which means less than 0.3% of the total S1+S2+S3 emissions.

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

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

1,907,547.3

Emissions calculation methodology

Average data method

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

0

Please explain

Well-to-Tank emissions of purchased fuels in our cement, aggregates and ready-mix businesses.

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

1,740,082.6

Emissions calculation methodology

Distance-based method

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

0

Please explain

Well-to-Wheel emissions derived from the transportation of raw materials. Please note that, regardless of the ownership of the fleet, all off-site transport is included here in Scope 3, as stated in the GCCA CO2 cement protocol.

Waste generated in operations

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO2e)

1,917

Emissions calculation methodology

Other, please specify

"The Scope 3 Evaluator" developed by GHG Protocol&Quantis

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

0

Please explain

According to the “Cement Sector Scope 3 GHG Accounting and Reporting Guidance” developed by WBCSD, cement production processes generate almost no waste. Nevertheless, we performed a screening with "The Scope 3 Evaluator" developed by GHG Protocol&Quantis, and based on the estimate expenditure in our cement facilities, emissions account for 1,917 tons of CO2e, so they are negligible. Additionally, for ready mix facilities, the concrete not used by customers is returned to our operations, and it is used or processed onsite (own reclycling facilities), so the emissions are already included in our S1+S2 inventories (fuel or electricity consumption)

Business travel

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO2e)

3,724.513

Emissions calculation methodology

Distance-based method

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

0

Please explain

Emissions from business travels from commercial team and executives. This category is not considered “relevant” in the “Cement Sector Scope 3 GHG Accounting and Reporting Guidance” developed by WBCSD.

Employee commuting

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO2e)

3,286.335

Emissions calculation methodology

Distance-based method

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

0

Please explain

Emissions arising from employee commuting. This category is not considered “relevant” in the “Cement Sector Scope 3 GHG Accounting and Reporting Guidance” developed by WBCSD.

Upstream leased assets

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO2e)

0

Emissions calculation methodology

Average data method

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

0

Please explain

Our company does not have leased operations, and that's the reason why our emissions are 0. The leased fleet is included in Categories 4 and 9.

Downstream transportation and distribution

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

2,098,127.229

Emissions calculation methodology

Fuel-based method
Distance-based method

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

0

Please explain

Land and maritime transportation of all our sold products with CEMEX-controlled transport. Also includes emissions derived from the aggregates and Ready-Mix volumes transported directly by our customers (non-controlled by CEMEX distribution). Please note that, regardless of the ownership of the fleet, all off-site transport is included here in Scope 3, as stated in the GCCA CO2 cement protocol.

Processing of sold products

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO2e)

265,070.155

Emissions calculation methodology

Average data method

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

0

Please explain

Emissions from cement processing for its conversion to Ready-Mix. This category is NOT considered “relevant” in the “Cement Sector Scope 3 GHG Accounting and Reporting Guidance” developed by WBCSD. The "GHG Accounting and Reporting guideline" for the cement sector, regards cement as an intermediate product, and recognize that identifying the end use of intermediate products is very difficult.
In any case, we performed the emissions screening assuming that all our cement is processed to be transformed to Ready-Mix. Part of the cement we produce (intermediate product), an 18%, is processed in our own Ready-Mix facilities, so the emissions associated to the processing to transform it to Ready-Mix are already considered in our S1+S2 emisisons. For the cement sold to our customers and processed by them, we use a general rate of 11 kWh/m3 provided in the aforementioned guideline as a proxy.

Use of sold products

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

4,146,055.175

Emissions calculation methodology

Fuel-based method

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

0

Please explain

The reported emissions are related to the use, so combustion, of the coal and petcoke that CEMEX trades with 3rd parties.

End of life treatment of sold products

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO2e)

358,893.353

Emissions calculation methodology

Waste-type-specific method

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

0

Please explain

End-of-life treatment of sold products. The Scope 3 standard identifies producers of “intermediate products.” Companies producing intermediate products do not have to report Categories 11 and 12. Identifying the end use of intermediate products is very difficult. In the "GHG Accounting and Reporting guideline" for the cement sector, regards cement as an intermediate product. Therefore, companies do not have to report these categories.

Thus, to perform the emissions screening under this category we focus in Ready-Mix; we assume that ALL sold concrete is demolished at the end of its lifetime and then processed to be recycled (30% recycling rate, higher than the actual one to be conservative), using Ecoinvent Global Emission Factors v.3.7.1. for electricity for crushing and material loading&movement and sorting (for recycled demolition waste). The "re-carbonation" rate, recognized by IPCC, increase when concrete is demolished but it is not included here to be conservative.

Downstream leased assets

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO2e)

0

Emissions calculation methodology

Average data method

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

0

Please explain

Our company does not have leased operations, and that's the reason why our emissions are 0. The leased fleet is included in Categories 4 and 9.

Franchises

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO2e)

0

Emissions calculation methodology

Average data method

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

0

Please explain

CEMEX is not a franchisor, and that's the reason why our emissions are 0.

Investments

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO2e)

0

Emissions calculation methodology

Average data method

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

0

Please explain

We do not have operation of investments (including equity and debt investments and project finance) in the reporting year that are not included in Scope 1 or 2.

Other (upstream)

Evaluation status

Please explain

Other (downstream)

Evaluation status

Please explain

C6.7

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

Yes

C6.7a

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

	CO2 emissions from biogenic carbon (metric tons CO2)	Comment
Row 1	1,786,916	

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

0.0029

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

41,922,671

Metric denominator

unit total revenue

Metric denominator: Unit total

14,548,000,000

Scope 2 figure used

Market-based

% change from previous year

8.99

Direction of change

Decreased

Reason for change

Efforts to decrease CO2 emissions during the year led the company to have its biggest CO2 reduction in history. One of the main initiatives has been the increase of Alternative

Fuels, by developing several new projects that were completed along 2021, 6 in different locations in Europe and 2 in Mexico which consisted in hydrogen injection technology, 8 in total for this technology. 2 more projects to increase RDF in Mexico plants (Merida and Monterrey) and 1 more in Poland to increase AF rate to 95%. Another initiative has been the decrease in Clinker Factor in our cements, mainly due to the execution of projects in SCAC region to reduce the clinker content in cement by displacing it with cementitious materials. Additionally, in 2021 we did the divestment of Buñol White facility.

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	0.849	0.785	0.072
Cement equivalent	0.644	0.596	0.055
Cementitious products	0.639	0.591	0.054
Low-CO2 materials	0.536	0.496	0.055

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	26,021,150.44
Asia, Australasia, Middle East and Africa	2,151,889.06
Europe	1,405,878.06
United Kingdom of Great Britain and Northern Ireland	1,080,240.6
Spain	2,064,361.15

Poland	1,377,773.58
Germany	1,287,617
Philippines	3,010,759.65

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')	3,535,758.76
CEMEX Holdings Philippines, Inc. ('CHP')	3,010,759.65
Rest of CEMEX	31,853,151.12

C7.3c

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

Activity	Scope 1 emissions (metric tons CO2e)
Cement	38,133,529.45
Aggregates	129,280.22
Concrete and asphalt	136,859.86

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	38,133,529.45	35,162,950.94	

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)
Americas	2,065,835.65	2,474,292.35
Germany	165,110.2	161,804.26
United Kingdom of Great Britain and Northern Ireland	74,979	0
Philippines	312,197.3	413,314.62
Other, please specify Rest of World	814,208.57	473,590.57

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')	124,814.46	73,418.57
CEMEX Holdings Philippines, Inc. ('CHP')	312,197.3	413,314.62
Rest of CEMEX	2,995,318.96	3,036,268.61

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	3,236,798.46	3,352,887.14
Aggregates	139,004.72	121,343.1
Concrete and asphalt	56,527.58	48,771.56

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	3,236,798.46	3,352,887.14	

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?

Increased

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	47,281	Decreased	0.1	To avoid double accounting divestment are excluded in this calculations (reported in line "divestments") and also changes in production volumes are excluded, as they are reported in the line "change in output". Renewable energy consumption decreased in cement mainly due to Mexico (-29 ktons vs. 2020) and Dominican republic (-11 ktons vs. 2020) due to an increase in the renewable attributes in Mexico and due to a new contract with a solar power facility in Dominican Republic (20 MWacc) Calculation (in %): Variation (-47,281 CO2 tons) / Total Emissions scope1+2 in 2020 (40,926,255) * 100

Other emissions reduction activities	305,938	Decreased	0.8	Emissions reduction calculation includes the ongoing projects which implementation started along 2020 and impacting in reductions in 2021 emissions (not fully implemented in 2020) + implemented projects in 2021 savings (real amounts from the implementation real date). Projects included are AF increase in Spain, Caribbean, Germany and Czech Republic, clinker factor initiatives in Dominicana and Poland and low intensity clinker production in 3 facilities in SCAC region. To avoid double accounting divestment is excluded in the calculations (as they are reported in line "divestments") as well as production variation, as it is included in the line "change in outputs". Calculation (in %): Variation (305,938 CO2 tons) / Total Emissions scope1+2 in 2020 (40,926,255) * 100
Divestment	320,506	Decreased	1	Divestment in 2021 of the cement operation in Buñol White (it does not affect to concrete and aggregates businesses) reducing our scope 1 and scope 2 emissions. Buñol W Scope 1+2 emissions 2020 = 320,506 tons of CO2. Calculation (in %): Variation (320,506 CO2 tons) / Total Emissions scope 1+scope 2 in 2020 (40,926,255)*100%
Acquisitions				
Mergers				
Change in output	1,670,141	Increased	4.1	Excluding Buñol White (reported in "divestments"), production of cement increased much more than expected, 5.3% in 2021 vs. 2020 and clinker production increased too a 4.3% 2021 vs. 2020. This means a increase in Scope 1+2 emissions of 1,730 ktons of CO2. Additionally, concrete and aggregates production declined by -0.6% impacting also in the reduction of scope1+scope2 reducing emissions 40,141 tons of CO2.

				Calculation (in %): Variation (1,670,141 CO2 ton) / Total Emissions scope 1+scope 2 in 2020 (40,926,255)*100%
Change in methodology				
Change in boundary				
Change in physical operating conditions				
Unidentified				
Other				

C7.9b

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

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)	5,356,240	46,567,973	51,924,213
Consumption of purchased or acquired electricity		2,199,476	5,329,219	7,528,695
Consumption of self-generated non-fuel renewable energy		54,051		54,051
Total energy consumption		7,609,767	51,897,192	59,506,959

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)	50,926,536
Consumption of purchased or acquired electricity		7,023,283
Total energy consumption		57,949,819

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.

Sustainable biomass

Heating value

LHV

Total fuel MWh consumed by the organization

5,356,240

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

5,356,240

Comment

Part of the alternative fuels we used in our kilns are biomass. According the The Cement CO2 Protocol: CO2 Emissions Monitoring and Reporting Protocol for the Cement Industry, the combustion of this biomass is monitored in the annual protocol, but it is then not taken into consideration in any cement sector KPI, as it is considered carbon neutral. All the biomass we consumed is always waste-derived, so sustainable biomass, and we do not use any biomass from a dedicated cultivation. Examples of waste-derived biomass we co-process in our kilns are sewage sludge, peanut and rice shells, animal meal, pruning and agricultural waste and biomass fraction in our alternative fuels (i.e. RDF and tyres).

The carbon neutrality of the biomass we co-process in our kilns is also recognized by the verification process in the EU ETS and the California Cap-and-Trade, where biomass combustion is monitored but it is then not accounted as it is considered carbon neutral. This is also recognized by IPCC FAQ Q2-10 - https://www.ipcc-nggip.iges.or.jp/faq/faq.html

Other biomass

Heating value

LHV

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

Comment

We do not consume any non-sustainable biomass in our operations.

Other renewable fuels (e.g. renewable hydrogen)

Heating value

LHV

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

Comment

We don't consume other renewable fuels at our operations. Nevertheless, we consume large quantities of alternative fuels, but according to CDP guidance they are not considered renewable. Alternative fuels are reported in the category "Other non-renewable fuels" together with petcoke and other fossil fuels.

Coal

Heating value

LHV

Total fuel MWh consumed by the organization

9,217,070

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

9,217,070

Comment

This includes all coal consumed in our cement operations, except lignite coal which is reported in the category "Other non-renewable fuels" with a very low contribution in our total fuel mix (0.2% of total fuel mix).

Oil

Heating value

LHV

Total fuel MWh consumed by the organization

1,774,548

MWh fuel consumed for self-generation of electricity

90,856

MWh fuel consumed for self-generation of heat

1,683,692

Comment

Includes diesel, gas oil and distillate fuel oil No 6 used across all our operations.

Gas

Heating value

LHV

Total fuel MWh consumed by the organization

3,748,338

MWh fuel consumed for self-generation of electricity

436,286

MWh fuel consumed for self-generation of heat

3,312,052

Comment

Natural Gas used at our operations.

Other non-renewable fuels (e.g. non-renewable hydrogen)

Heating value

LHV

Total fuel MWh consumed by the organization

31,828,016

MWh fuel consumed for self-generation of electricity

16,091

MWh fuel consumed for self-generation of heat

31,811,925

Comment

Includes other fuels used at our operations:
Alternative fuels (29.1%), Petroleum coke (70.4%), lignite (0.3%), gasoline & others (0.2%). These percentages are from Total reported MWh of other non-renewable fuels consumed by the organization (31,828,016 MWh).

Total fuel

Heating value

LHV

Total fuel MWh consumed by the organization

51,924,212

MWh fuel consumed for self-generation of electricity

543,233

MWh fuel consumed for self-generation of heat

51,380,979

Comment

Total fuels used at our operations including all categories reported above.

C-CE8.2c

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

Sustainable biomass

Heating value

LHV

Total MWh fuel consumed for cement production activities

5,356,240

MWh fuel consumed at the kiln

5,356,240

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

Other biomass

Heating value

LHV

Total MWh fuel consumed for cement production activities

0

MWh fuel consumed at the kiln

0

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

Other renewable fuels (e.g. renewable hydrogen)

Heating value

LHV

Total MWh fuel consumed for cement production activities

0

MWh fuel consumed at the kiln

0

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

Coal

Heating value

LHV

Total MWh fuel consumed for cement production activities

9,217,070

MWh fuel consumed at the kiln

9,152,596

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

64,474

MWh fuel consumed for the self-generation of electricity

0

Oil

Heating value

LHV

Total MWh fuel consumed for cement production activities

776,872

MWh fuel consumed at the kiln

454,089

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

231,927

MWh fuel consumed for the self-generation of electricity

90,856

Gas

Heating value

LHV

Total MWh fuel consumed for cement production activities

3,748,338

MWh fuel consumed at the kiln

3,286,850

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

25,202

MWh fuel consumed for the self-generation of electricity

436,286

Other non-renewable fuels (e.g. non-renewable hydrogen)

Heating value

LHV

Total MWh fuel consumed for cement production activities

31,828,016

MWh fuel consumed at the kiln

31,781,675

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

30,250

MWh fuel consumed for the self-generation of electricity

16,091

Total fuel

Heating value

LHV

Total MWh fuel consumed for cement production activities

50,926,536

MWh fuel consumed at the kiln

50,031,450

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

351,853

MWh fuel consumed for the self-generation of electricity

543,233

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	299,761	259,337	90,024	54,051
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	299,761	259,337
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 or near-zero emission factor in the market-based Scope 2 figure reported in C6.3.

Sourcing method

Green electricity products from an energy supplier (e.g. green tariffs)

Energy carrier

Electricity

Low-carbon technology type

Renewable energy mix, please specify

Wind among other renewables

Country/area of low-carbon energy consumption

Poland

Tracking instrument used

Contract

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

308,197

Country/area of origin (generation) of the low-carbon energy or energy attribute

Poland

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

Comment

Poland 100% renewable power supply in 2021 in all sites (cement and concrete). All supplies are contract backed. The reported amount is the total consumption in Poland.

Sourcing method

Default delivered electricity from the grid (e.g. standard product offering by an energy supplier), supported by energy attribute certificates

Energy carrier

Electricity

Low-carbon technology type

Renewable energy mix, please specify

Different renewable sources (wind, solar...)

Country/area of low-carbon energy consumption

United Kingdom of Great Britain and Northern Ireland

Tracking instrument used

REGO

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

215,767

Country/area of origin (generation) of the low-carbon energy or energy attribute

United Kingdom of Great Britain and Northern Ireland

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

Comment

UK Power supply 100% renewable through REGOs retired by supplier. Ammendment signed with supplier ENGIE in August 2018 and extended in 2021 for 3 more years.

Sourcing method

Direct procurement from an off-site grid- connected generator e.g. Power purchase agreement (PPA)

Energy carrier

Electricity

Low-carbon technology type

Hydropower (capacity unknown)

Country/area of low-carbon energy consumption

Colombia

Tracking instrument used

Contract

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

25,755

Country/area of origin (generation) of the low-carbon energy or energy attribute

Colombia

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

2,013

Comment

PPA with a small hydropower plant to provide renewable energy to our operations in Colombia

Sourcing method

Direct procurement from an off-site grid- connected generator e.g. Power purchase agreement (PPA)

Energy carrier

Electricity

Low-carbon technology type

Hydropower (capacity unknown)

Country/area of low-carbon energy consumption

Panama

Tracking instrument used

Contract

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

94,195

Country/area of origin (generation) of the low-carbon energy or energy attribute

Panama

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

Comment

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

Sourcing method

Direct procurement from an off-site grid- connected generator e.g. Power purchase agreement (PPA)

Energy carrier

Electricity

Low-carbon technology type

Solar

Country/area of low-carbon energy consumption

Dominican Republic

Tracking instrument used

Contract

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

24,276

Country/area of origin (generation) of the low-carbon energy or energy attribute

Dominican Republic

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

2,021

Comment

Contracted Solar PV plant (20 MW) to supply electricity in our cement operation in San Pedro, Dominican Republic.

Sourcing method

Direct procurement from an off-site grid- connected generator e.g. Power purchase agreement (PPA)

Energy carrier

Electricity

Low-carbon technology type

Wind

Country/area of low-carbon energy consumption

Mexico

Tracking instrument used

Contract

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

373,032

Country/area of origin (generation) of the low-carbon energy or energy attribute

Mexico

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

2,016

Comment

PPAs with wind power plants in Mexico (EURUS, Ventika I and II). Renewable energy attributes belong to CEMEX through the contract.

Sourcing method

Other, please specify

Default delivered electricity from the grid (e.g. standard product offering by an energy supplier), not supported by energy attribute certificates

Energy carrier

Electricity

Low-carbon technology type

Low-carbon energy mix, please specify

Different renewable sources (wind, solar…)

Country/area of low-carbon energy consumption

Croatia

Tracking instrument used

No instrument used

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

52,429

Country/area of origin (generation) of the low-carbon energy or energy attribute

Croatia

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

Comment

The electricity supplied to our operations have a renewable electricity mix indicated by the specific supplier.

Sourcing method

Other, please specify

Default delivered electricity from the grid (e.g. standard product offering by an energy supplier), not supported by energy attribute certificates

Energy carrier

Electricity

Low-carbon technology type

Low-carbon energy mix, please specify

Different renewable sources (wind, solar…)

Country/area of low-carbon energy consumption

Czechia

Tracking instrument used

No instrument used

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

28,003

Country/area of origin (generation) of the low-carbon energy or energy attribute

Czechia

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

Comment

The electricity supplied to our operations have a renewable electricity mix indicated by the specific supplier.

Sourcing method

Other, please specify

Default delivered electricity from the grid (e.g. standard product offering by an energy supplier), not supported by energy attribute certificates

Energy carrier

Electricity

Low-carbon technology type

Renewable energy mix, please specify

Different renewable sources (wind, solar…)

Country/area of low-carbon energy consumption

Egypt

Tracking instrument used

No instrument used

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

52,936

Country/area of origin (generation) of the low-carbon energy or energy attribute

Egypt

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

Comment

The electricity supplied to our operations have a renewable electricity mix indicated by the grid operator/country.

Sourcing method

Other, please specify

Default delivered electricity from the grid (e.g. standard product offering by an energy supplier), not supported by energy attribute certificates

Energy carrier

Electricity

Low-carbon technology type

Renewable energy mix, please specify

Different renewable sources (wind, solar…)

Country/area of low-carbon energy consumption

Germany

Tracking instrument used

No instrument used

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

33,084

Country/area of origin (generation) of the low-carbon energy or energy attribute

Germany

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

Comment

The electricity supplied to our operations have a renewable electricity mix indicated by the specific supplier.

Sourcing method

Other, please specify

Default delivered electricity from the grid (e.g. standard product offering by an energy supplier), not supported by energy attribute certificates

Energy carrier

Electricity

Low-carbon technology type

Renewable energy mix, please specify

Different renewable sources (wind, solar…)

Country/area of low-carbon energy consumption

Philippines

Tracking instrument used

No instrument used

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

4,518

Country/area of origin (generation) of the low-carbon energy or energy attribute

Philippines

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

Comment

The electricity supplied to our operations have a renewable electricity mix indicated by the specific supplier according to the RPS requirements of the Philippines.

Sourcing method

Other, please specify

Default delivered electricity from the grid (e.g. standard product offering by an energy supplier), not supported by energy attribute certificates

Energy carrier

Electricity

Low-carbon technology type

Renewable energy mix, please specify

Different renewable sources (wind, solar…)

Country/area of low-carbon energy consumption

Spain

Tracking instrument used

No instrument used

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

49,662

Country/area of origin (generation) of the low-carbon energy or energy attribute

Spain

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

Comment

The electricity supplied to our operations have a renewable electricity mix indicated by the specific supplier.

Sourcing method

Other, please specify

Default delivered electricity from the grid (e.g. standard product offering by an energy supplier), not supported by energy attribute certificates

Energy carrier

Electricity

Low-carbon technology type

Renewable energy mix, please specify

Different renewable sources (wind, solar…)

Country/area of low-carbon energy consumption

United Arab Emirates

Tracking instrument used

No instrument used

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

2,638

Country/area of origin (generation) of the low-carbon energy or energy attribute

United Arab Emirates

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

Comment

The electricity supplied to our operations have a renewable electricity mix indicated by the grid operator/country.

Sourcing method

Other, please specify

Default delivered electricity from the grid (e.g. standard product offering by an energy supplier), not supported by energy attribute certificates

Energy carrier

Electricity

Low-carbon technology type

Renewable energy mix, please specify

Different renewable sources (wind, solar…)

Country/area of low-carbon energy consumption

Mexico

Tracking instrument used

No instrument used

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

149,632

Country/area of origin (generation) of the low-carbon energy or energy attribute

Mexico

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

Comment

The electricity supplied to our operations have a renewable electricity mix indicated by the grid operator/country.

Sourcing method

Other, please specify

Default delivered electricity from the grid (e.g. standard product offering by an energy supplier), not supported by energy attribute certificates

Energy carrier

Electricity

Low-carbon technology type

Renewable energy mix, please specify

Different renewable sources (wind, solar…)

Country/area of low-carbon energy consumption

Costa Rica

Tracking instrument used

No instrument used

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

91,937

Country/area of origin (generation) of the low-carbon energy or energy attribute

Costa Rica

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

Comment

The electricity supplied to our operations have a renewable electricity mix indicated by the grid operator/country.

Sourcing method

Other, please specify

Default delivered electricity from the grid (e.g. standard product offering by an energy supplier), not supported by energy attribute certificates

Energy carrier

Electricity

Low-carbon technology type

Renewable energy mix, please specify

Different renewable sources (wind, solar…)

Country/area of low-carbon energy consumption

Guatemala

Tracking instrument used

No instrument used

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

12,900

Country/area of origin (generation) of the low-carbon energy or energy attribute

Guatemala

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

Comment

The electricity supplied to our operations have a renewable electricity mix indicated by the grid operator/country.

Sourcing method

Other, please specify

Default delivered electricity from the grid (e.g. standard product offering by an energy supplier), not supported by energy attribute certificates

Energy carrier

Electricity

Low-carbon technology type

Renewable energy mix, please specify

Different renewable sources (wind, solar…)

Country/area of low-carbon energy consumption

Jamaica

Tracking instrument used

No instrument used

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

13,961

Country/area of origin (generation) of the low-carbon energy or energy attribute

Jamaica

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

Comment

The electricity supplied to our operations have a renewable electricity mix indicated by the grid operator/country.

Sourcing method

Other, please specify

Default delivered electricity from the grid (e.g. standard product offering by an energy supplier), not supported by energy attribute certificates

Energy carrier

Electricity

Low-carbon technology type

Renewable energy mix, please specify

Different renewable sources (wind, solar…)

Country/area of low-carbon energy consumption

Nicaragua

Tracking instrument used

No instrument used

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

28,694

Country/area of origin (generation) of the low-carbon energy or energy attribute

Nicaragua

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

Comment

The electricity supplied to our operations have a renewable electricity mix indicated by the grid operator/country.

Sourcing method

Other, please specify

Default delivered electricity from the grid (e.g. standard product offering by an energy supplier), not supported by energy attribute certificates

Energy carrier

Electricity

Low-carbon technology type

Renewable energy mix, please specify

Different renewable sources (wind, solar…)

Country/area of low-carbon energy consumption

Puerto Rico

Tracking instrument used

No instrument used

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

606

Country/area of origin (generation) of the low-carbon energy or energy attribute

Puerto Rico

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

Comment

The electricity supplied to our operations have a renewable electricity mix indicated by the grid operator/country.

Sourcing method

Other, please specify

Default delivered electricity from the grid (e.g. standard product offering by an energy supplier), not supported by energy attribute certificates

Energy carrier

Electricity

Low-carbon technology type

Renewable energy mix, please specify

Different renewable sources (wind, solar…)

Country/area of low-carbon energy consumption

Trinidad and Tobago

Tracking instrument used

No instrument used

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

34

Country/area of origin (generation) of the low-carbon energy or energy attribute

Trinidad and Tobago

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

Comment

The electricity supplied to our operations have a renewable electricity mix indicated by the grid operator/country.

Sourcing method

Other, please specify

Default delivered electricity from the grid (e.g. standard product offering by an energy supplier), not supported by energy attribute certificates

Energy carrier

Electricity

Low-carbon technology type

Renewable energy mix, please specify

Different renewable sources (wind, solar…)

Country/area of low-carbon energy consumption

United States of America

Tracking instrument used

No instrument used

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

347,185

Country/area of origin (generation) of the low-carbon energy or energy attribute

United States of America

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

Comment

The electricity supplied to our operations have a renewable electricity mix indicated by the grid operator/country or indicated by the specific supplier.

Sourcing method

Unbundled energy attribute certificates (EACs) purchase

Energy carrier

Electricity

Low-carbon technology type

Low-carbon energy mix, please specify

Different renewable sources (wind, solar…)

Country/area of low-carbon energy consumption

Mexico

Tracking instrument used

Other, please specify

Certificados de Energia Limpia (CEL)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

176,850.24

Country/area of origin (generation) of the low-carbon energy or energy attribute

Mexico

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

Comment

Unbundled CELs bought to comply with clean energy procurement obligation.

Sourcing method

Unbundled energy attribute certificates (EACs) purchase

Energy carrier

Electricity

Low-carbon technology type

Large hydropower (>25 MW)

Country/area of low-carbon energy consumption

Colombia

Tracking instrument used

I-REC

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

14,930

Country/area of origin (generation) of the low-carbon energy or energy attribute

Colombia

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

Comment

Unbundled I-RECs bought to increase renewable energy consumption.

Sourcing method

Other, please specify

Default delivered electricity from the grid (e.g. standard product offering by an energy supplier), not supported by energy attribute certificates

Energy carrier

Electricity

Low-carbon technology type

Renewable energy mix, please specify

Different renewable sources (hydro, wind, solar…)

Country/area of low-carbon energy consumption

Colombia

Tracking instrument used

No instrument used

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

98,254.37

Country/area of origin (generation) of the low-carbon energy or energy attribute

Colombia

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

Comment

The electricity supplied to our operations have a renewable electricity mix indicated by the grid operator/country.

C8.2g

(C8.2g) Provide a breakdown of your non-fuel energy consumption by country.

Country/area

Germany

Consumption of electricity (MWh)

267,238

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

267,238

Country/area

United Kingdom of Great Britain and Northern Ireland

Consumption of electricity (MWh)

215,767

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

215,767

Country/area

Philippines

Consumption of electricity (MWh)

495,891

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

495,891

Country/area

Other, please specify

Americas

Consumption of electricity (MWh)

5,253,681

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

5,253,681

Country/area

Other, please specify

Rest of the World (Rest of Europe and Middle East)

Consumption of electricity (MWh)

1,555,456

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

1,555,456

C9. Additional metrics

C9.1

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

Description

Waste

Metric value

22.88

Metric numerator

Waste-derived sources managed. Million tons

Metric denominator (intensity metric only)

Does not apply

% change from previous year

20

Direction of change

Increased

Please explain

Management of waste-derived sources in million tons, as for example the consumption of waste from other industries in our operations, like Alternative Fuels and additions to cement (fly ash or GBFS). In 2021, we managed close to 23 million tons of waste and non-recyclable by-products, which is close to 57 times more waste than we sent to landfill.

Description

Energy usage

Metric value

0.3

Metric numerator

Power consump. of clean energy in cement (MWh)

Metric denominator (intensity metric only)

Total Power consumption in cement (MWh)

% change from previous year

1

Direction of change

Increased

Please explain

Percentage of clean energy consumption in cement, i.e., 30%.

Description

Land use

Metric value

0.86

Metric numerator

BAP and 3rd party certification

Metric denominator (intensity metric only)

Total number of active quarries needing a plan

% change from previous year

9

Direction of change

Increased

Please explain

Quarry rehabilitation plans, Biodiversity Action Plans (BAPs), and third party certification (% from target quarries)

Description

Metric value

Metric numerator

Metric denominator (intensity metric only)

% change from previous year

Direction of change

Please explain

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 and a dedicated multidisciplinaty 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 absorbCO2 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 constantly working on 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 globally in 2020. Vertua sales increased during 2021.

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. Additionally, in 2020 we launched to the market Vertua Ultra zero concrete, which is a geopolymer clinker-free concrete that has up to 70% CO2 reduction versus a standard concrete (CEM I). The Geopolymer, traditional cement alternative, was developed at our global research and development centre in Switzerland to achieve further carbon reductions. Vertua Ultra can be used for a wide variety of applications including foundations, roads, groundworks and more. This new product launched in the UK, Germany, France in 2020 and rolled-out in 2021 in the rest of the countries, has been the result of research and high innovation. 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)	Applied research and development	≤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. Additionally in 2020 and 2021 we have been awarded with two DOE funding to explore Carbon Capture in two of our facilities in US. 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)	Applied research and development	≤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. Additionally, we have announce our collaboration with Synhelion, the first solar driven calcination process that at the same time capture the process CO2 to produce syngas; we are planning a pilot to be built in 2022, but off-site our cement plants to first check the techonology. 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	Small scale commercial deployment	≤20%		CEMEX has already a WHR facility in Solid plant (Philippines) and a new facility in Apo plant (also in Philippines) just started up in 2022. Additional several studies to participate in a H2020 funding to build new facilities in northern Europe operations. In 2021, we've been granted an EU funding to develop supercritical CO2 WHR in our facility in Czech Republic (the stage of this specific project is "applied research and development" as we are still starting with this new technology and we are even planning a pilot before 2024. 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

22mar22_2022 Final_English_Independent assurance report_Cemex_Sust_Report_2021.pdf

Page/ section reference

All

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 market-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

22mar22_2022 Final_English_Independent assurance report_Cemex_Sust_Report_2021.pdf

Page/ section reference

All

Relevant standard

ISAE3000

Proportion of reported emissions verified (%)

95

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

22mar22_2022 Final_English_Independent assurance report_Cemex_Sust_Report_2021.pdf

Page/section reference

All

Relevant standard

ISAE3000

Proportion of reported emissions verified (%)

41.9

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
UK ETS

C11.1b

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

California CaT - ETS

% of Scope 1 emissions covered by the ETS

6.02

% of Scope 2 emissions covered by the ETS

0

Period start date

January 1, 2021

Period end date

December 31, 2021

Allowances allocated

2,257,885.1

Allowances purchased

0

Verified Scope 1 emissions in metric tons CO2e

2,312,037.6

Verified Scope 2 emissions in metric tons CO2e

0

Details of ownership

Facilities we own and operate

Comment

EU ETS

% of Scope 1 emissions covered by the ETS

15.82

% of Scope 2 emissions covered by the ETS

0

Period start date

January 1, 2021

Period end date

December 31, 2021

Allowances allocated

5,564,869.43

Allowances purchased

0

Verified Scope 1 emissions in metric tons CO2e

6,073,046.78

Verified Scope 2 emissions in metric tons CO2e

0

Details of ownership

Facilities we own and operate

Comment

UK ETS

% of Scope 1 emissions covered by the ETS

2.68

% of Scope 2 emissions covered by the ETS

0

Period start date

January 1, 2021

Period end date

December 31, 2021

Allowances allocated

1,014,136.67

Allowances purchased

45,000

Verified Scope 1 emissions in metric tons CO2e

1,029,319.64

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, 2021

Period end date

December 31, 2021

% of total Scope 1 emissions covered by tax

0

Total cost of tax paid

164,122

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. The majority of the taxed emissions (44 ktons) are reported as scope 3 emissions (transportation)

Mexico carbon tax

Period start date

January 1, 2021

Period end date

December 31, 2021

% of total Scope 1 emissions covered by tax

10.03

Total cost of tax paid

1,263,847

Comment

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

Poland carbon tax

Period start date

January 1, 2021

Period end date

December 31, 2021

% of total Scope 1 emissions covered by tax

3.12

Total cost of tax paid

93,043

Comment

Please note that the tax is paid over the total allocation instead of total emissions

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 developed a "CO2 Reduction Roadmap" plan for all the cement sites that we started to revisit in late 2020 to increase our 2025 and 2030 ambition. There is a designated leader in each Region from Operations and another leader from the Strategic planning side. This effort is leaded 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 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, leaded 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.

We identified 290 initiatives including improvements to energy efficiency, switch to alternative fuels (biomass) or natural gas, the use of clinker substitutes and decarbonated raw materials (local availability) and novel clinker development. 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 in Europe and California is to keep sufficient number of allowances in our balance to facilitate the transition to a lower clinker emissions, minimizing the financial impact while we execute the investments to reduce our emissions.

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. In 2020 we also started to compensate a range of low carbon concrete Vertua with reforestation offsets with our partner NCP (Natural Capital Partners) for Europe and CO2Cero in Colombia.
MONITORING: In addition to the mandatory monitoring, reporting, and verification required by the EU ETS and CAL 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.

Case Study for monitoring our emissions and track performance vs. monthly/yearly goal, so to comply with the systems we are regulated or to comply with our internal metrics:
Situtation: CEMEX needs to have visibility of its emissions performance on a more frequently basis than the annual CO2 Protocol we develop.
Task: CEMEX goal is to daily monitor the CO2 intensity and absolute emissions in a monthly/daily basis
Action: In late 2019, CEMEX included in the DOR tool (Daily Operations Report) a CO2 monitoring for absolute direct emissions and intensity direct emissions in our cement plants. The calculation follows the criteria established in the CSI-GCCA CO2 cement protocol, son consider fuel emisisons as well as process emissions coming from the decarbonation of our raw materials. CEMEX connected the report to the operational databases to perform the calculation automatically.
Result: CEMEX implemented in 2020 a CO2 module in the "Daily Operations Report" for 100% of the cement plants. As a result we get all CO2 related KPIs in a daily basis and for both, clinker and cement production. Thanks to this automatic tracking, the monthly monitoring in the Exco along 2020 and 2021 has been more effective. The new automatic daily monitoring facilitates the follow-up process at site level, as well as the impact of the implemented initiatives.

C11.2

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

No

C11.3

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

Yes

C11.3a

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

Objective for implementing an internal carbon price

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
Scope 2

Application

The carbon price is integrated into our short and med-term business planning process to understand the impacts of a potential carbon pricing in our monthly results, to evaluate the impact of a potential regulation (risk) and to evaluate investments and acquisitions. We update the reference price annually; in 2021 we used 60 USD/t (EU reference) to evaluate monthly performance and as a worst case scenario for all investment decision and 24 USD/t (California ref) as a base case scenario in all geographies except EU.
Example of Internal Carbon Price:
To evaluate the profitability of an Alternative Fuel facility in Panama (not regulated country) in 2021, we calculate the ROI using a CO2 price of 60 and 24 USD/t to evaluate the impact. Additionally, in 2021 we monitored in a monthly basis the YTD performance vs. YTD goal in Panama, and the difference is multiplied then by 60 USD/ton impacting its annual CVA result.

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

60

Variance of price(s) used

In 2021 we updated the CO2 prices based on the analysts' prices forecast (10 analyst's price average):
Reference price in Europe (regulated): 2021: 60 USD/ton - 2022: 90 USD/ton... 2025: 116 USD/ton / 2030: 141 USD/ton. This price is also used to evaluate the monthly performance in all geographies and to evaluate the investments worst case scenario.
Reference price in California (used for non-regulated + California): Carbon price forecast in California. 2021: 24 USD/ton / 2022: 25 USD/ton … 2025: 29 USD/ton / 2030: 41 USD/ton
For investment decision making, we also calculate the initiatives "abatement curves", so the CO2 price breakeven point is calculated for each investment we analyse.

Type of internal carbon price

Shadow price

Internal fee
Implicit price

Impact & implication

The internal price on carbon allows to CEMEX to:
1. Identify cost-effective CO2 reduction opportunities in those countries where there is no a compliance carbon price in place, but are exposed to increased risks under a scenario of external carbon pricing.
2. Additionally, it raises the awareness among all organization of CEMEX's potential exposure to external carbon pricing (financial impact of the risk)
3. The internal carbon price applied to our monthly results (EBITDA impact) raise awareness of the importance of the CO2 strategy for the company, and at the same time, facilitates the understanding of the site management team of the potential impact of their daily decisions.
4. Drives a culture of constantly reducing our carbon footprint regardless of the existence of a local regulation. Carbon prices based on external mechanisms (taxes, emissions trading) allow us to better evaluate the profitability of daily decisions, projects and strategies.
Example of the impact and implications: Alternative Fuel increase investment in a site in Colombia: the evaluation of the investment w/o considering a CO2 price show a payback of 6 years. The execution of the project provides a carbon intensity reduction of 25 kgCO2/clinker ton; considering the CO2 2021 reference price for non-regulated countries of 24 USD/ton we get to improve the payback to 3.8 years.

C12. Engagement

C12.1

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

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

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

56

% total procurement spend (direct and indirect)

72

% 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 90% 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 72% 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. 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. 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. And CEMEX is doing another pilot of CNG trucks in our own fleet in Mexico City.

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

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

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-reductionstrategies, › Replicate winning ideas across CEMEX, › Promote the supplier’s brand name throughout CEMEX operations, › Provide value for their clients, › Enhance thequality 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 since 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. As part of this program, in 2020 we recognized Dispersible Paper Packaging from Klabin and Green Energy for Mixer Trucks from Sinotruk. During 2021, we received 36 ideas, from which three proposals will undergo a business case process that may lead to a pilot project in our operations.

Comment

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

Type of engagement

Other, please specify

Compliance & onboarding

Details of engagement

Other, please specify

Code of Conduct featuring climate change KPIs

% of suppliers by number

100

% total procurement spend (direct and indirect)

100

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

Rationale for the coverage of your engagement

Aligned with our principles, policies, and values, we are committed to having our suppliers understand and comply with the CEMEX Code of Ethics and Business Conduct and with the 12 principles of our Code of Conduct When Doing Business with Us—which are rooted in our membership in, and commitment to, the Global Cement and Concrete Association (GCCA). In which one of these principles is management of environmental impacts, where climate change-related issues are one of the main subject to focus. Launched in 2011 and redefined in 2019 globally to all our suppliers.

Impact of engagement, including measures of success

This CEMEX Code of Ethics and Business Conduct is a requirement for all our suppliers, and this helps us align our principles, policies, and values with them. In it, we included our Environmental policy where we ask them to support us in making strategic efforts to maximize our energy and resource efficiency, lower our carbon intensity and reduce emissions by managing our usage of energy, water consumption and waste generation.

Comment

Type of engagement

Engagement & incentivization (changing supplier behavior)

Details of engagement

Other, please specify

Sponsorship for UNGC membership and training provided by CEMEX to understand the 10 principles of the SDGs.

% of suppliers by number

100

% total procurement spend (direct and indirect)

3

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

Rationale for the coverage of your engagement

In 2021 we sponsored 54 Small and Medium Enterprises (SMEs) suppliers from our operations in Mexico to join the UN Global Compact (UNGC) and develop action plans to incorporate its Ten Principles and the Sustainable Development Goals (SDGs) into their sustainable business strategy. We open this opportunity to the SMEs suppliers with which CEMEX had already a close relationship and which already had some experience related to sustainable practices. For 5 months over we help them to understand and implement the Ten Principles and identify their impacts on the SDGs. From this experience we not only had good results, but also learned about the challenges and benefits of SMEs participating in the UNGC. With our learnings, and in partnership with the UNGC, we will continue to implement training and sponsorship opportunities to foster sustainable practices beyond our critical supplier group in other geographies. We believe that involving SMEs in our strategy is key. We must go further and support our value chain, share our experiences and our knowledge to fulfill our purpose of Building a Better Future and contribute to our Future in Action strategy, which includes our net-zero commitment for 2050. For this reason, this year we joined the SME Engagement with the UNGC, ILO and other partners as Patrons to support the UNGC in the creation of a value proposition. This initiative aims to accelerate and scale meaningful SMEs engagement in sustainability, in accordance with their capacities and business realities. Our involvement will contribute to enhance outreach and onboarding, create simple tailored programming to promote the Ten Principles and the SDGs, and develop supply chain impact pilots.

We work to enhance business opportunities for responsible SMEs, prepared them for future challenges and support them to better adapt to the inevitable net-zero transition. For us, SMEs are the essence of any economy, both in developing and developed economies, and are critical to the fulfillment of the Global Goals.

Impact of engagement, including measures of success

Originally we had budgeted for 50 sponsorships to UNGC membership, however due to the success and demand of our iniaciative with our SMEs suppliers we ended up

opening 4 additional spaces, that's the reason why we have 100% in "% of suppliers by number". Regarding the training we provided to our suppliers, we had and end of course survey where we asked what they thought SDGs meant in their companies where none responded "SDGs are not important and a waste of time, there's nothing an SME can do", and where all answered they were satisfied to be invited to join the UNGC thantks to CEMEX's sponsorship. It is still too early to assess the impact of our suppliers joining the UNGC as this iniciative was implemented last year, but the ultimate measures of its success will be how many of the 54 SMEs continue with their UNGC membership in the following year.

Comment

We work to enhance business opportunities for responsible SMEs, prepared them for future challenges and support them to better adapt to the inevitable net-zero transition. For us, SMEs are the essence of any economy, both in developing and developed economies, and are critical to the fulfillment of the Global Sustainable Development Goals.
Calculation of "3%" in "% total procurement spend": We considered our total annual expenditure with the 54 SMEs that took part in this iniciative divided by the total supply expenditure in Mexico.

C12.1b

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

Type of engagement & Details of engagement

Collaboration & innovation
Run a campaign to encourage innovation to reduce climate change impacts

% of customers by number

100

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

0

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

Customer Centricity is one of our top priorities same as Climate Action is and this engagement effort merges these two strategic company objectives and targets 100% of clients since our paperless campaign and implementation has decided to go global and cover all business lines. As part of our digitalization process starting with CEMEX Go, our industry-first platform for purchasing products, tracking deliveries, and managing orders seamlessly — all while keeping safety top of mind, we have continuously worked to identify additional opportunities to better serve our customers ensuring their expectations are always fulfilled while minimizing environmental impacts. And precisely, based on the feedback we obtained from our customers through the different communication mechanisms we use to engage with them, together we identified an

additional opportunity to adapt our administrative processes to become more efficient but more importantly to eliminate the contribution that paper order confirmations, invoices and tickets have in the climate change challenge. Going paperless has allowed CEMEX together with our customers to contribute to carbon emissions mitigation through natural resources conservation by avoiding trees cut, elimination of fossil fuel consumption for transportation of the documents to get the customers signature, decrease in energy consumption required to create the paper and to process it (e.g. copies, filing, etc.) and also avoid the emissions that would be generated from the eventual paper disposal frequently in landfills.

Impact of engagement, including measures of success

This engagement effort is directed to all of our customers and as of now we have already reached around 73% paperless adoption across the globe. Our target is to achieve 100% and we continue to adapt our processes, systems, and strenghten the climate change education with our customers in order to facilitate their adoption of the paperless administative tracking considering the positive impact derived from their decision to accept and support going paperless.

Type of engagement & Details of engagement

Education/information sharing

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

% of customers by number

100

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

0

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

As part of our Future in Action strategy to become a Net Zero CO2 organisation, we are positioning our sustainable products and solutions portfolio across our entire value chain to provide our customers with green solutions to their business needs. Our digital platforms are essential to our customer centricity and global business strategy, so our CEMEX-Go platform (platform where our customers generate their purchase orders) is the perfect channel to promote our Vertua low-carbon products by displaying banners. The Vertua banners are displayed so our customers may consider our low-carbon Vertua brand for their construction needs. The goal of the engagement is to promote our low-carbon solutions which, together with other commercial initiatives, will help us to increase low-carbon products sales.

We initiated the banner campaign in a selected group of countries, South, Central American and Caribbean region, which represented in 2021 a 41.1% of our total scope (Colombia, Guatemala, the Dominican Republic, Panama, Costa Rica, Nicaragua, and Puerto Rico) and will continue in other geographies throughout 2022.

Impact of engagement, including measures of success

We consider this engagement campaign as successful if we get to increase the sales of low-carbon products annually. In 2021, the low-carbon products have been very favourably received by customers, with Vertua cement volumes growing almost 50% since its global launch. For example, Vertua has already been used in La Marseillaise, a new skyscraper in Marseille, as well as in the new HS2 high-speed railway in London and in the Queretaro-Irapuato highway in Mexico. Strengthening the climate change education of our customers, and encouraging them to choose sustainable products and solutions considering the positive impact they provide, is part of our strategy to face the impacts of Climate Change.

Type of engagement & Details of engagement

Education/information sharing

Run an engagement campaign to education customers about your climate change performance and strategy

% of customers by number

40

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

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

CEMEX is committed to continuously share with it's customers, prospects and industry stakeholders, our different key initiatives around the Future in Action pillars. The campaign consists of raising awareness of our FIA Initiative through digital marketing channels: Paid Search (Google Search) and Display (Online banners) as well as providing additional details within our websites (landing pages) to fully inform our highly engaged audiences (those who clicked). This communication effort was deployed first in English and Spanish speaking countries (USA, UK, MX, CO, SPA), so these customers and prospecting customers in this geographies are the scope of our engagement, meaning a 39.9% of our total active customers in 2021.

Impact of engagement, including measures of success

Customers from the above-mentioned countries have access to the material displayed in Google Search engine + Online Banners, meaning a 40% of our total active customers in 2021. We consider this initiative successful because it was the first communication effort of the Future In Action Initiative, and we achieved the objective of creating awareness and spreading the message of this initiative to different stakeholders of the industry, as well as to our current and potential customers. The impact achieved were 6,052,000 impressions (times the banner was shown) and 1,845 clicks, so it is successful because more than 1,500 customers explored the content of our "Future in Action" campaign.

Type of engagement & Details of engagement

Collaboration & innovation
Run a campaign to encourage innovation to reduce climate change impacts

% of customers by number

100

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

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

We survey CEMEX customers twice a year to measure their loyalty and satisfaction to our brand (Net Promoter Score survey). In 2021, we incorporated several questions to this survey to determine how much our customers know about sustainability matters, how they feel about the topic, and get to know their expectations better to shape our Future in Action Strategy in accordance to their level of interest and understanding of the subject. We introduced these climate-related questions in 2Q21 and 3Q21 in our EMEA region, and 4Q21 in all our regions, with the objective of continuing this practice in further years.

Impact of engagement, including measures of success

The response rate of our Net Promoter Score surveys globally vary between 25% and 30%. According to Quatrics Studies, a response rate above 25% is considered satisfactory, that is why we consider this engagement initiative successful, however we have been implementing multiple practices to increase our customers' level of engagement since we started the program in 2018.

Type of engagement & Details of engagement

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

% of customers by number

100

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

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

As part of our Future in Action strategy to become a Net Zero CO2 organization, we are positioning our Vertua brand across our entire value chain to provide our customers with green solutions to their business needs. The main objective was to communicate and create awareness with our targeted audience (integrated by our current and potential Customers and Industry Stakeholders) and drive them into our website (landing page) where they could learn more about Vertua value proposition, the different products and request a product quotation.

Impact of engagement, including measures of success

Customers around the world have access to the material displayed in search engines. The impact achieved were 13,741,000 impressions (times the banners were shown) and 140,079 clicks. We consider this effort as successful because the objectives of communicating and creating awareness of the Vertua Products were achieved, receiving more than 100,000 visits during 2021.

C12.1d

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

We invest considerable time and effort into building long lasting relationships with stakeholders throughout the entire construction value chain with the aim of creating innovative solutions and state-of-the-art projects that have a positive impact on the environment.

During 2021, we collaborated with architecture and engineering firms to identify and explore new ways in which they can use concrete to design and build greener buildings. One of the projects that has materialized during 2021 is OUM Wellness in Monterrey, Mexico. This commercial building had the target of becoming the first net-zero building in the country. The goal was particularly challenging due to the prevailing long, hot and muggy summers of Monterrey. Through a co-creation process, a smart high-performing concrete façade was designed for the building. These architectural envelope combines bioclimatic principles with two concrete technologies of CEMEX (Pervia and Resilia) to pre-treat the hot air entering the building. The solution is a precast concrete façade made of approximately 200 elements that reduces its temperature by between 5-8ºC. This allows the building's HVAC systems to run more efficiently and consume less energy.

We also understand the importance and potential mitigation lever of engaging with partners down the construction value chain, and therefore also work intensively with key stakeholders and clients to minimize the impacts generated by the sector during the construction process. During 2021 we teamed up with a precast company in Poland that produced concrete blocks and projected to go greener. The conventional process for manufacturing concrete blocks uses a mix design that includes "pure" cement (CEM Type I). This is necessary to reach high early strength performance in the blocks, which is a critical requirement for this business. Making use of our proprietary admixture technology, we were able to develop a specific mix-design that fulfilled the company's material's performance requisites using a "blended" cement (CEM Type II). This achievement allowed the precast company to substitute the amount of clinker factor in cement by 14%. Through this innovation and other complementary strategies, the overall CO2 embodied footprint of the blocks was reduced by 20%.

In 2021 we have also reached out to new companies and start-ups aiming to foster the construction revolution with the mission of addressing the evolving pain points across the construction industry. One of the ongoing alliances CEMEX is currently working on is with Energy Vault, a Swiss start-up company working on gravity & kinetic energy-based storage solutions. As usually happens, new players with bright ideas face at certain points roadblocks that threatens to jeopardize their entire value proposition. In the case of Energy Vault this happened with the brick elements that the system envisioned to store the energy. The pieces needed to be heavy and strong and were originally conceived to be made with conventional concrete. To reach the desired specifications, the designed solution made the entire system economically unviable. Making use of its knowledge and proprietary admixture technology,

CEMEX Global R&D team developed a soil-based material that not only reached the required specifications at a much lower cost, but also provided a new use to the site's excavated soil which otherwise would be disposed in landfills. This breakthrough was key for making Energy Vault's innovative proposal a viable solution. In 2021, Energy Vault and CEMEX built the first commercial demonstration unit in Switzerland. Afterwards, Energy Vault became the latest new unicorn in the country. Currently, both companies are working together on an evolved version of the solution which has the potential of being executed at industrial scale and commercialized.

At the same time, we have collaborated with universities from all over the world to identify and explore new ways in which we can use concrete to continue building better societies and cities while creating a symbiotic relationship with nature. Our associations include an exciting relationship with the Biomass Production Laboratory of McGill University in Canada. For a long time, they have been studying options to re-green cities through the smart incorporation of vegetation in architecture. Most of what is today available on the market are add-on systems made of multiple components that can accommodate limited number of species and required considerable operational expenditures. During the last years, we have jointly developed a concrete-based solution that can serve as substrate for plants while also serving other architectonic purposes (e.g. walls, divisions, floors). The key innovation of this ongoing collaboration is the possibility to grow plants in a controlled and efficient way, opening the door for extending its use to grow crops and vegetables with the goal of creating vertical farming systems to produce food in cities.

C12.2

(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?

Yes, climate-related requirements are included in our supplier contracts

C12.2a

(C12.2a) Provide details of the climate-related requirements that suppliers have to meet as part of your organization's purchasing process and the compliance mechanisms in place.

Climate-related requirement

Complying with regulatory requirements

Description of this climate related requirement

As stated in the Code of Conduct When Doing Business With Us, Suppliers shall systematically manage their environmental impacts with respect to, but not limited to, energy, materials and climate change-related issues, water, waste, chemicals, air pollution and biodiversity, and set objectives and targets to reduce such impacts. Suppliers identified as having a high environmental impact shall take action and demonstrate proof of continuous improvement towards implementing and applying a recognized environmental management system.

% suppliers by procurement spend that have to comply with this climate-related requirement

100

% suppliers by procurement spend in compliance with this climate-related requirement

80

Mechanisms for monitoring compliance with this climate-related requirement

Supplier self-assessment

Response to supplier non-compliance with this climate-related requirement

Retain and engage

C12.3

(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?

Row 1

Direct or indirect engagement that could influence policy, law, or regulation that may impact the climate

Yes, we engage indirectly through trade associations

Yes, we engage indirectly by funding other organizations whose activities may influence policy, law, or regulation that may significantly impact the climate

Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?

Yes

Attach commitment or position statement(s)

Integrated report (IR) 2021 (page 36) - GCCA, where CEMEX is a founding member - "The GCCA has published a detailed roadmap that sets out the industry's path to fully decarbonize by 2050, a target aligned with the Paris Agreement to limit global warming to 1.5°C. The move by the members of the GCCA marks the most significant global commitment by industry to net-zero so far". Page 37, "LEADING OUR INDUSTRY THROUGH PARTNERSHIPS TO ACCELERATE CLIMATE ACTION: CEMEX has signed the Business Ambition for 1.5°C commitment; CEMEX joined The Race to Zero Campaign of the UNFCCC; CEMEX is one of the founding members of the First Movers Coalition (...) the FMC is a group of global companies joining together to scale up critical emerging technologies essential to the net zero transition."
Page 37: " COMMITTED TO CLIMATE ACTION DISCLOSURE. (...) Creating a common understanding of climate-related risks and opportunities across the cement and concrete industry is key in the delivery of the Paris Agreement goals. Disclosures of information on climate-related governance, strategy, risk, and metrics is essential for successful long-term investors."

Link to IR:
https://www.cemex.com/documents/20143/57102208/IntegratedReport2021.pdf/ca7f90b7-d742-314c-de70-7de4bf8f5431?t=1648173083550

Describe the process(es) your organization has in place to ensure that your engagement activities are consistent with your overall climate change strategy

CEMEX is engaged in different associations/initiatives that are fully aligned with Paris Agreement Goals, like "Business Ambition for 1.5ºC", "Race to Zero" and "GCCA". Before we become signatories of any of these initiatives, we ensure that their position is consistent with our climate change strategy by exploring their ethics policies and public positions regarding climate and ensure that they are aligned to our core principals: supporting the Paris Agreement Net-Zero ambition, promoting a carbon pricing mechanism to realize the Net-Zero goal and promoting the use of low-carbon products. Once we engage, we always keep track of their publications, or even take part in the discussions before launching any public position, by ensuring that their position is always aligned with our core principles and strategy. In case of any misalignement in the positions, which is fortunately very rare, CEMEX drops off the position or evaluate whether it has to drop of the association or initiative.

C12.3b

(C12.3b) Provide details of the trade associations your organization engages with which are likely to take a position on any policy, law or regulation that may impact the climate.

Trade association

CEMBUREAU: The European Cement Association

Is your organization's position on climate change consistent with theirs?

Consistent

Has your organization influenced, or is your organization attempting to influence their position?

We publicly promote their current position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

Cembureau has a strong commitment and a clear roadmap to achive carbon neutrality by 2050. "By acting at every stage of the value chain, deep CO2 emission cuts can be achieved to lead to carbon neutrality. In striving for this goal, the cement industry is optimistic on driving down its manufacturing emissions. We are also pleased to be recognised as an essential supplier of a product that is bringing value to society over its entire value chain. 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". CEMEX is fully aligned and participates in the revision of all the public positions made by Cembureau on climate policies aligned with a Net-Zero future, carbon pricing (EU ETS phase IV discussions), biodiversity roadmap...

Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)

Describe the aim of your organization's funding

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Trade association

Other, please specify

GCCA (Global Cement and Concrete Association)

Is your organization's position on climate change consistent with theirs?

Consistent

Has your organization influenced, or is your organization attempting to influence their position?

We publicly promote their current position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

GCCA recognized Climate Change and the need to take inmmediate global action. We are developing the 2050 Carbon Neutral Ambition for the whole industry worldwide. Being funding members of GCCA our CEO is part of the board. We are co-leading several working groups and acively participating in them, i.e. we are working on the detailed 2050 roadmap, we are developing KPIs for concrete business and the protocol to measure the emissions in this business.

Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)

Describe the aim of your organization's funding

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Trade association

Portland Cement Association

Is your organization's position on climate change consistent with theirs?

Consistent

Has your organization influenced, or is your organization attempting to influence their position?

We publicly promote their current position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

"America's cement manufacturers are committed to sustainably producing the highest quality product needed to build durable, resilient concrete buildings and infrastructure that support safe and strong communities and power the U.S. economy."
"America's cement manufacturers have committed to the goal of reaching carbon neutrality throughout the cement-concrete-construction value chain by 2050."
"The cement and concrete industry have developed a Roadmap outlining the opportunities and actions to reach carbon neutrality. The Roadmap involves the entire value chain, starting at the cement plant and extending through the entire life cycle of the built environment to incorporate the circular economy. This approach to carbon neutrality leverages relationships at each step of the value chain, demonstrating to the world that this industry can address climate change with ambition and audacity."
We are fully aligned with their position, and we have been actively participating in the development of the PCA Carbon Neutrality roadmap.

Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)

Describe the aim of your organization's funding

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Trade association

Other, please specify

Federación Interamericana de Cemento (FICEM)

Is your organization's position on climate change consistent with theirs?

Consistent

Has your organization influenced, or is your organization attempting to influence their position?

We publicly promote their current position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

FICEM released in November 2021 its position "Climate ambition" and CEMEX actively participated in its development - FICEM – reaffirms its commitment to climate action, contributing to a model of sustainable development where cement contributes to mitigation and adaptation to climate change, throughout its life cycle, including concrete and construction. Actions such as technological renewal of facilities, waste recovery, use of renewable energies and reduction of carbon content clinker in the cement, stand out in the path of decarbonization of our industry and are part of FICEM's research and publications, positioning it as the technical benchmark against governments and multilateral organizations for the development of global carbon strategies neutrality, which the current climate crisis demands. The principles of FICEM to achieve this ambition climate, are mainly based on: promoting the sustainability and resilience than cement and concrete provide to our built environments; speed up the reduction of our CO2 emissions; and encourage the research and innovation throughout the life cycle of the cement."

We are fully aligned with FICEM's position, and we are actively participating in the development of their Net-Zero roadmap.

Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)

Describe the aim of your organization's funding

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Trade association

Other, please specify

Cámara Nacional de Cemento México (CANACEM)

Is your organization's position on climate change consistent with theirs?

Mixed

Has your organization influenced, or is your organization attempting to influence their position?

We are attempting to influence them to change their position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

The CANACEM public mission and vision is, in our view, very focus on the very short-term actions, but they do not have a public forward-looking position on climate action and Net-Zero future. That is why we are now working on understanding the importance to develop a mexican industry roadmap aiming carbon neutrality, as we have already for all our Mexican CEMEX facilities. Nevertheless, Mexico is part of FICEM and Mexico will be included in the Net-Zero roadmap developed by FICEM, so we will be covered.
"Our mission: Represent the general interests of industrialists in the cement sector, through concrete actions and the provision of quality services, in order to promote a professional industry, with social responsibility, committed to the environment, the community and sustainable development. thereby achieving a better country.
Our vision: To be a state-of-the-art, first-rate public interest institution that collaborates with the sustainable development of the country and is committed to its work, social and environmental environment, generating the best opportunities for the sector."

Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)

Describe the aim of your organization's funding

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is not aligned

Trade association

Other, please specify

California Nevada Cement Association (CNCA)

Is your organization's position on climate change consistent with theirs?

Consistent

Has your organization influenced, or is your organization attempting to influence their position?

We publicly promote their current position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

"The California Cement Industry is dedicated to achieving carbon neutrality goals and has a plan". "The California cement industry is committed to achieving carbon neutrality by 2045, consistent with the reality that urgent and aggressive emissions reductions are necessary to avoid the worst impacts of global climate change. Achieving this goal requires eliminating current barriers that limit what actions the industry can take and

lifting restrictions on available opportunities. By working together, the industry can move forward with large-scale, long-term investments in emissions reduction. There are three major pathways to achieve emissions reductions industry-wide, and within these pathways are nine key levers to make carbon neutrality possible. By working with policymakers, regulators, developers, engineers, architects, advocates, and others we can achieve carbon neutrality by 2045".
Eventhough they are aiming to achieve carbon neutrality 5 years ahead of our global goal, we are fully aligned to their target and we support their position to get carbon neutrality by 2045 for our California business.

Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)

Describe the aim of your organization's funding

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

C12.3c

(C12.3c) Provide details of the funding you provided to other organizations in the reporting year whose activities could influence policy, law, or regulation that may impact the climate.

Type of organization

International Governmental Organization (IGO)

State the organization to which you provided funding

UN Global Compact (UNGC). In 2004 we became signatories of the UNGC contributing with an annual fee, and in 2022 we did a collaboration agreement by signing a MOU to become "patrons" and "partners" to collaborate in particular programs of climate: Just Transition, Gender and Sustainable Finance (CFO Coalition) - this new fee is not included in next question

Funding figure your organization provided to this organization in the reporting year (currency as selected in C0.4)

20,000

Describe the aim of this funding and how it could influence policy, law or regulation that may impact the climate

With the funding we are contributing to the cost associated with the initiatives (events, workshops, training, thinks labs…). We actively participate in different working groups to address climate change mitigation and adaptation. UNGC can influence policy and regulations as they are world's largest corporate sustainability initiative. "At the UN

Global Compact, we aim to mobilize a global movement of sustainable companies and stakeholders to create the world we want. That's our vision. To make this happen, the UN Global Compact supports companies to: Do business responsibly by aligning their strategies and operations with Ten Principles on human rights, labour, environment and anti-corruption; and Take strategic actions to advance broader societal goals, such as the UN Sustainable Development Goals, with an emphasis on collaboration and innovation".

Have you evaluated whether this funding is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

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

IntegratedReport2021.pdf

Page/Section reference

All our report is related to our climate position and actions, but summarizing the most relevant pages:
13 Contribution to the SDGs
15 2021 Performance and 2030 Targets
20-37 Future in Action (Climate Action)
45-50 Innovation in Our Product and Solutions Portfolio and CEMEX Ventures
63-85 Responsible Sourcing
63-73 Social Impact
112-113 Climate related risks
255-271 TCFD Report

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

Publication
In voluntary communications

Status
Complete

Attach the document
2021 TCFD Report.pdf

Page/Section reference
Whole document. All the TCFD recommendation can be found in the document in the following pages:
1 Governance
4 Strategy
15 Risk Management
17 Metrics and Targets

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

In 2019 we 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 the 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 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. Biodiversity

C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity
Row 1	Yes, both board-level oversight and executive management-level responsibility	2030 Target 100% Biodiversity Action Plans on High Biodiversity Value active quarries , 100 % Rehabilitation Plan on all active qaurries and 100% 3rd Party Certifications on biodiversity conservation programs on all cement quarries.

C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Biodiversity-related public commitments	Initiatives endorsed
Row 1	Yes, we have made public commitments and publicly endorsed initiatives related to biodiversity	Adoption of the mitigation hierarchy approach Commitment to not explore or develop in legally designated protected areas Commitment to respect legally designated protected areas Commitment to avoidance of negative impacts on threatened and protected species Commitment to no conversion of High Conservation Value areas	SDG

C15.3

(C15.3) Does your organization assess the impact of its value chain on biodiversity?

	Does your organization assess the impact of its value chain on biodiversity?
Row 1	Yes, we assess impacts on biodiversity in our upstream value chain only

C15.4

(C15.4) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity- related commitments
Row 1	Yes, we are taking actions to progress our biodiversity-related commitments	Land/water protection Land/water management Species management Education & awareness Law & policy

C15.5

(C15.5) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	Yes, we use indicators	State and benefit indicators

C15.6

(C15.6) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
In mainstream financial reports	Details on biodiversity indicators Biodiversity strategy	pages 60-62 https://www.cemex.com/documents/20143/57102208/IntegratedReport2021.pdf/ca7f90b7-d742-314c-de70-7de4bf8f5431?t=1648173083550 [1]

[1] IntegratedReport2021.pdf

C16. 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.

C16.1

(C16.1) 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)

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	14,548,000,000

SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

Requesting member

Cementir Holding NV

Scope of emissions

Scope 1

Allocation level

Facility

Allocation level detail

Direct gross emissions from the production of the cement types produced in the 3 facilities supplying cement to Lehigh White in US, Buñol White, Monterrey White and Valles White.

Emissions in metric tonnes of CO2e

184,905.1

Uncertainty (±%)

Major sources of emissions

Source: CEMEX CO2 Protocol 2021 at plant level. Emissions are associated to the clinker production at the production specific site (decarbonation of rawmeal and fuel emissions) and then adjusted to the clinker content of the sourced cements types at site/product level.

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Market value or quantity of goods/services supplied to the requesting member

191,310.77

Unit for market value or quantity of goods/services supplied

Metric tons

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

The reported gross absolute emissions Scope 1 have been calculated specifically for our customer taking into account the following: 1. Direct gross emissions associated to the production of 50,600 tons of Cem BL I 52.5 supplied from Buñol White facility in Spain to Lehigh White in US 2. Direct gross emissions associated to the production of 34,278 tons of Cem CPO30RB supplied from Monterrey White facility in Mexico to Lehigh White in US 3. Direct gross emissions associated to the production of 106,433 tons of Cem CPO30RB supplied from Valles White facility in Mexico to Lehigh White in US. Regarding the verification: Our CO2 protocol is verified annually by KPMG (limitted assurance). The verified data are just for clinker intensity (FY2021) and cement annual weighted average. To calculate the emissions associated to our customer, we used the verified emission factor of clinker in the facilities and specific clinker factor of the cement supplied (clinker factor source: internal Operations DB). The calculation of the scope 1 emissions associated to our customer are as follows: For each facility and each product type: EF clinker 2021 @ plant level (verified), multiplied by the clinker factor of the type of cement supplied @ plant/product level, multiplied by the total volume supplied.

Requesting member

Cementir Holding NV

Scope of emissions

Scope 2

Allocation level

Facility

Allocation level detail

Indirect emissions from the electricity consumption associated to the production of the cement types produced in the 3 facilities supplying cement to Lehigh White in US, Buñol White, Monterrey White and Valles White. Provided emissions are market-based.

Emissions in metric tonnes of CO2e

20,147.72

Uncertainty (±%)

Major sources of emissions

Emissions associated to the purchased electricity consumed to produce the supplied cement types per facility. Grid emission factor is market-based for each facility supplying cement to our customer.

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Market value or quantity of goods/services supplied to the requesting member

191,310.77

Unit for market value or quantity of goods/services supplied

Metric tons

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

The reported absolute emissions Scope 2 have been calculated specifically for our customer taking into account the following: 1. Indirect electricity emissions associated to the production of 50,600 tons of Cem BL I 52.5 supplied from Buñol White facility in Spain to Lehigh White in US 2. Indirect electricity emissions associated to the production of 34,278 tons of Cem CPO30RB supplied from Monterrey White facility in Mexico to Lehigh White in US 3. Indirect electricity emissions associated to the production of 106,433 tons of Cem Cemento Blanco Exp supplied from Valles White facility in Mexico to Lehigh White in US. Regarding the verification: Our CO2 protocol is verified annually by KPMG (limitted assurance). The verified data in this case are: the annual grid intensity - market-based- (kgCO2/MWh) and the total electicity consumed, both at site level, but there is no specific consumption in the protocol @product level. For the specific electricity consumption at product level (kWh/cem type) we use internal DB. The calculation of our scope 2 emissions associated to our customer are as follows: For each facility and each product type: Grid intensity (kgCO2/MWh) @plant level (verified), multiplied by the specific consumption (kWh/cem type) of the supplied cement @ plant/product level, multiplied by the total volume supplied.

Requesting member

Cementir Holding NV

Scope of emissions

Scope 3

Allocation level

Facility

Allocation level detail

Reported S3 category: Exclusively reporting "Distribution of sold products" category. Indirect emissions associated to the transportation of the cement supplied from our 3 facilities - Buñol White, Monterrey White and Valles White - to Lehigh White in US.

Emissions in metric tonnes of CO2e

12,456.21

Uncertainty (±%)

Major sources of emissions

Emissions from the transportation of our products from our sites to our customer destination point.

Verified

No

Allocation method

Allocation based on the volume of products purchased

Market value or quantity of goods/services supplied to the requesting member

236,310.77

Unit for market value or quantity of goods/services supplied

Metric tons

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

The reported absolute emissions Scope 3 - Distribution of sold products - have been calculated specifically for our customer taking into account the following: 1. Indirect distribution emissions associated to the transportation of 50,600 tons of Cem BL I 52.5 supplied from Buñol White facility in Spain to Lehigh White in US. Type of transport: Maritime. Loading port: Valencia. Discharge port: Port Everglades. 2. Indirect distribution emissions associated to the transportation of 45,000 tons of Cem supplied from Cimsa's (not CEMEX plant) Buñol White facility in Spain to Lehigh White in US (CEMEX is in charge of the distribution of this volume, so we account for these Scope 3 emissions). Type of transport: Maritime. Loading port: Valencia. Discharge port: Port Everglades 3. Indirect emissions associated to the transportation of 7,301 tons of Cem CPO30RB supplied from Monterrey White facility in Mexico to Lehigh White in US. Type of transport: Rail. Loading point: Monterrey plant. Discharge point: El Paso, Texas. 4. Indirect emissions associated to the transportation of 26,977 tons of Cem CPO30RB supplied from Monterrey White facility in Mexico to Lehigh White in US. Type of transport: Rail. Loading point: Monterrey plant. Discharge point: Laredo. 5. Indirect emissions associated to the transportation of 87,061 tons of Cem Cemento Blanco Exp supplied from Valles White facility in Mexico to Lehigh White in US. Type of transport: Rail. Loading point: Valles plant. Discharge point: Laredo... among others. The calculation of our scope 3 emissions - distribution of sold products - associated to our

customer are as follows: From Buñol White: Type of transportation: maritime. Route: Valencia Port to Port Everglades. Calculation: Route Nautic Milles (NM) / Type of ship: Speed and IFO daily consumption / Total IFO consumption for the total volumen multiplied by 3.114 tons of CO2e/IFO Monterrey White: Type of transportation: Rail. Route: Monterrey plant to abovementioned destinations. Calculation: Weighted average distance in km (429 km) multiplied by 0.05182 kgCO2e/tonne*km (from Ecoinvent database) for diesel train. Valles White: Type of transportation: Rail. Route: Valles plant to abovementioned destinations. Calculation: Weighted average distance in km (813 km) multiplied by 0.05182 kgCO2e/tonne*km (from Ecoinvent database) for diesel train. The rail distance is estimated based on road distance. The transport from the plant to the loading port is not considered for maritime transportation.

Requesting member

Schlumberger Limited

Scope of emissions

Scope 1

Allocation level

Facility

Allocation level detail

Direct gross emissions from the production of the cement type produced in the facility supplying cement to Schlumberger in US, Lyons.

Emissions in metric tonnes of CO2e

2,849.77

Uncertainty (±%)

Major sources of emissions

Source: CEMEX CO2 Protocol 2021 at plant level. Emissions are associated to the clinker production at the production specific site (decarbonation of rawmeal and fuel emissions) and then adjusted to the clinker content of the sourced cements types at site/product level.

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Market value or quantity of goods/services supplied to the requesting member

2,954

Unit for market value or quantity of goods/services supplied

Metric tons

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

The reported gross absolute emissions Scope 1 have been calculated specifically for our customer taking into account the following: Direct gross emissions associated to the production of 2,954 tons of Cem Type III supplied from Lyons facility in the US to Schlumberger in US. Regarding the verification: Our CO2 protocol is verified annually by KPMG (limitted assurance). The verified data are just for clinker intensity (FY2021) and cement annual weighted average. To calculate the emissions associated to our customer, we used the verified emission factor of clinker in the facilities and specific clinker factor of the cement supplied (clinker factor source: internal Operations DB). The calculation of the scope 1 emissions associated to our customer are as follows: For each facility and each product type: EF clinker 2021 @ plant level (verified), multiplied by the clinker factor of the type of cement supplied @ plant/product level, multiplied by the total volume supplied.

Requesting member

Schlumberger Limited

Scope of emissions

Scope 2

Allocation level

Facility

Allocation level detail

Indirect emissions from the electricity consumption associated to the production of the cement type produced in the facility supplying cement to Schulmberger in US, Lyons. Provided emissions are market-based

Emissions in metric tonnes of CO2e

449.17

Uncertainty (±%)

Major sources of emissions

Emissions associated to the purchased electricity consumed to produce the supplied cement type of the facility. Grid emission factor is market-based for the facility supplying cement to our customer.

Verified

Yes

Allocation method

Allocation based on the volume of products purchased

Market value or quantity of goods/services supplied to the requesting member

2,954

Unit for market value or quantity of goods/services supplied

Metric tons

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

The reported absolute emissions Scope 2 have been calculated specifically for our customer taking into account the following: 1. Indirect electricity emissions associated to the production of 2,954 tons of Cem Type III supplied from Lyons facility in the US to Schlumberger in the US. Regarding the verification: Our CO2 protocol is verified annually by KPMG (limitted assurance). The verified data in this case are: the annual grid intensity - market-based- (kgCO2/MWh) and the total electicity consumed, both at site level, but there is no specific consumption in the protocol @product level. For the specific electricity consumption at product level (kWh/cem type) we use internal DB. The calculation of our scope 2 emissions associated to our customer are as follows: For each facility and each product type: Grid intensity (kgCO2/MWh) @plant level (verified), multiplied by the specific consumption (kWh/cem type) of the supplied cement @ plant/product level, multiplied by the total volume supplied.

SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

We do not publish information on emissions at site level. Company-wide Scope 1, Scope 2 and Scope 3 emissions are published in our annual integrated report and CDP annual reporting. The primary and secondary data used for the S1, S2 and S3 calculations provided to our customer are already explained in the corresponding row in SC1.1., so please refer to SC1.1. information.

SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges
Managing the different emission factors of diverse and numerous geographies makes calculating total footprint difficult	Emission factors have been obtained from ecoinvent database at regional level. It is also not so easy to access to rail distances in km. We will try to find together with our customer if the estimated km and emission factor for rail can be more specific to our customer.

SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?

Yes

SC1.4a

(SC1.4a) Describe how you plan to develop your capabilities.

We monitor in an annual basis our scope 3 emissions globally, but splitting the emissions by customer is something that can be done easily for Scope 1 and Scope 2 emissions as we have already emissions at site level for cement products. However, more detailed information and datasets are required for the distribution of our products in order to get a customer specific report. So, we are planning to build a database with our main customers deliveries information (origin and destination, types of transport, distances and emissions factors associated to the type of transport).

The allocation of emissions to our customers for concrete and aggregates have to be also developed as it is more complex.

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?

No

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?

No, I am not providing data

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission

Please select your submission options	Yes	Public

Please confirm below

I have read and accept the applicable Terms