C0. Introduction

C0.1

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

Corporate Profile:

Having commenced its operations in 1972 at the Mersin Plant, Çimsa today operates with five integrated plants in Mersin, Eskişehir, Kayseri, Niğde, and Afyonkarahisar (Afyon Cimento), as well as one grinding facility in Ankara. Since 2013 Çimsa has 51% share of Afyon Cimento and fully integrated into the management system of Çimsa in 2018 including climate change.

In addition to grey cement, Çimsa also produces special products such as white cement and calcium aluminate cement as well as ready-mixed concrete. Exporting white cement and special products to more than 65 countries, mainly to markets in the Middle East, Europe, North Africa, and the United States, Çimsa increases the recognition of its brand on international platforms as well as increasingly contributing to its sector and the Turkish economy.

One of the world's three leading brands of white cement, Çimsa is a truly international cement producer with its terminals in Hamburg (Germany), Trieste (Italy), Seville and Alicante (Spain), Famagusta

(TRNC), Constanza (Romania) and Novorossiysk (Russia).

Çimsa maintains its stable growth process backed by its long-standing experience in global and local markets, its know-how, and its R&D work which shapes the sector and its identity as a reliable partner for its 1,148 employees and stakeholders.

In its 47th year of operation, Çimsa took significant steps forward in building a sustainable future. Çimsa's aim of global leadership came one step closer with the agreement to acquire the Buñol Factory in Spain. Following the testing and enhancement work, Çimsa Americas started selling products in the final quarter of 2019. Meanwhile, the Joint Cultural Management One Team-One Voice project was carried out.

The company is also one of the industrial companies of Sabancı Group. Hacı Ömer Sabancı Holding A.Ş., one of Turkey's leading conglomerates, is the parent company and manages the Sabancı Group's companies with a strategic portfolio approach. Turkey's rapidly growing sectors including banking, insurance, energy, cement, retail, and industrial are the main business areas of Sabancı Group. Sabancı Group companies are market leaders in their respective sectors and currently operate in 13 countries and market their products in regions across Europe, Middle East, Asia, North Africa, North, and South America.

Strategy:

Çimsa defined its strategic foundations as;

• Sustainability

• Being Human Oriented, Global Culture

• Digital Transformation

Based on strategic foundations, **Çimsa's Strategy** is to serve as guidance for its decision-making processes in the Company's operations carried out in the domestic and international markets. Strategical areas to guide are determined as follows;

• Growth and integration

• Cash management, operational and technical discipline

• Digital and cultural transformation

Priorities defined based on the company strategy and stakeholder consultations are;

• Occupational Health and Safety

• Growing in International Markets

• Profitability and Dividends

• Equality at Work

• Customer Loyalty

• Risk Management

• Digitalization

• Cultural and Technological Transformation

The company follows the capital management model. Six capitals defined and every project under priorities evaluated upon 6 capitals which are;
1. Financial
2. Manufactured
3. Intellectual
4. Human
5. Social and relational
6. Natural.

Risk assessment is based on those capitals and for each and every risk, the company defines the capital type. Natural capital covers climate&energy, environment&emission, water, waste, biodiversity&ecosystem development, recycle&circular economy. If the financial effect of the natural capital risk is above the company benchmark it is discussed by the Management and Sustainability Committee's to decide on the required action and next steps.

The company also have a sustainability committee that supports the risk assessment in terms of climate change and the **Climate Change Strategy** of the company is to perform annual greenhouse gas emission calculations in accordance with greenhouse gas inventory studies, to designate goals for future projections, and to develop solution methods to reduce emissions.

In 2020, the total Scope 1 and 2 emissions are verified as follows:

Scope 1 emissions: 5,642,232 tCO2e

Scope 2 emissions: 309,829 tCO2e

The intensity is 872 tCO2e/ton clinker for the base year (2015) and it was aimed to decrease it to 855 tCO2e/ton clinker by 2025. The intensity figure for the reporting year is 855 tCO2e/ton clinker and we have already reached our target. New targets will be set in next year in line with Sabanci Holdings' Net Zero Target.

The list of measures to carry out to achieve this goal is as follows and in line with GCCA of the WBCSD;

• To follow production processes with energy efficiency measurements,

• To improve process efficiency,

• To increase the cement content ratio,

• To use alternative energy resources.

C0.2

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

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	January 1 2020	December 31 2020	No	<Not Applicable>

C0.3

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

Turkey

C0.4

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

TRY

C0.5

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

Operational control

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
Concrete production

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
Chief Executive Officer (CEO)	The responsibility of the CEO about climate-related issues come from integrated risk management. High and very high level of risks with their alternative solutions and budgets shared with the CEO. The CEO is informed by the Corporate Risk Department. CEO is the highest level of responsibility to approve the action plan and the budget with the guidance of the Management Committee and Sustainability Committee. Climate-related risks in the long term horizon may need a high budget of investments that has a long technical lifetime. For Cimsa all WHR investments done to decrease the energy consumption and emissions of the company are approved by the CEO who leads the sustainability committee. CEO as a sustainability committee chair represents the company in NGOs and international platforms which focused on sustainability and climate change. Achievement of SDG targets defined in Cimsa is also reporting to the CEO. The CEO is also responsible for informing the Sabancı Holding we are affiliated with about the critical developments that may include climate change.
Other C-Suite Officer	Chief Technical Officer (CTO) has responsibilities about climate-related issues. CTO is also a member of the management committee and the sustainability committee. The alternative fuel and alternative raw materials use, energy efficiency, technological investment alternatives for low carbon transition in the company are under CTO's responsibility. In 2020, R&D projects for less carbon consumption, energy efficiency projects, and alternative fuel studies were approved by the CTO. He also follows the progress in emission reduction targets. For the management of technological risks CTO also has the responsibility to review the alternative investments reported by Plant Managers to solve the technological risk.

C1.1b

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

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – some meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding annual budgets Reviewing and guiding business plans Setting performance objectives Monitoring implementation and performance of objectives Overseeing major capital expenditures, acquisitions and divestitures Monitoring and overseeing progress against goals and targets for addressing climate-related issues	<Not Applicable>	Climate Change policy & strategies, performance & targets are particularly managed by Sustainability Committee and it is led by the CEO. In quarterly meetings, supporting projects as per climate change with inline its strategical areas to guide on growth & integration are reviewed. Management Committee is also responsible for climate-related issues because the company applies integrated risk assessment and they issue the risk procedures and monitor the risks. If a very high and high risk is defined as related to climate change then it's the management committee's responsibility with Sustainability Committee to approve the risk management alternative with its budget. The management committee meets every month. The highest climate change risks come from possible regulative changes and customer behaviour change. Those risks are shared by the Corporate Risk Department to Sustainability Committee and Management Committee. The approved action to mitigate the effect of the risk was the acceleration of R&D in terms of new low carbon product development and technology. The budget for R&D in 2020 was 6.7 million TL. The objectives of the company related to climate change come from the energy efficiencies planned in the company for the further years. All technical data verified by the third party and managing the climate change in the daily operation is one of the company priorities.

C1.2

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

Name of the position(s) and/or committee(s)	Reporting line	Responsibility	Coverage of responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	<Not Applicable>	Managing climate-related risks and opportunities	<Not Applicable>	Quarterly
Other C-Suite Officer, please specify (Chief Technical Officer)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities *In terms of management of direct operation risks based on technology on manufacturing plants. As described in details in Section 2, beside general risk management procedures, if the risk is identified on plant and technological investment needed than before sharing the risk with the Corporate Risk Department, Plant Manager and CTO review the low-carbon technological alternatives. At this point CTO also have the responsibility to assess the risk. Since investments in cement sector have long technological life time, the company have decision to invest in low-carbon technologies because all the business is in transition period to low-carbon future in line with SDG 13.*	<Not Applicable>	Quarterly
Sustainability committee	<Not Applicable>	Both assessing and managing climate-related risks and opportunities *With the support of Sustainability Committee Working Groups, the committee also is a part of assessing the climate related risks and opportunities.*	<Not Applicable>	Quarterly
Other committee, please specify (Management Committee)	<Not Applicable>	Managing climate-related risks and opportunities	<Not Applicable>	More frequently than quarterly

C1.2a

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

Climate-related issues are managed through the Sustainability Committee and Management Committee in Cimsa and CEO is the highest level of responsibility. Sustainability & Management Committees are managed by the highest level of managers of the company.

Sustainability Committee(SC) led by CEO and consist of the members of ;

Vice General Managers,

Operational Excellence Group Manager,

Waste Management Manager,

Corporate Risk Manager,

Strategic Planning and Project Management Office Coordinator,

Corporate Communications Manager,

Financial Planning and Analysis Manager

and Environment and Sustainability Executive as a committee secretary.

Sustainability Committee has a subgroup which is "Sustainability Working Group". The "Sustainability Working Group is to follow expected regulations, developments in low carbon products, and potential high impacts of global reports like IPCC and Global Cement Industry and international conferences and reports to the Sustainability Committee. Sustainability Committee reviews the reports of the Sustainability Working Group in terms of possible high financial impacts on business. The members of the Sustainability Committee have responsibilities in relations with policymakers and the NGO's who work about climate change for the cement industry. Those responsibilities create the vision and give a clear picture of the changes that might occur because of climate change. As one of the highest level committees in the company, the Sustainability Committee, with these responsibilities, review the action plans proposed to manage the risks including climate-related risks with the vision of a high level of sustainability knowledge.

The second committee which is responsible for climate-related issues is the Management Committee(MC). Management Committee with Sustainability Committee has the responsibility to approve the budgets of the action plans proposed to manage the high and very high risks.

Those committees give the final decision about climate-related risks and opportunities to the CEO. They approve the budget for the mitigation of climate-related risks and invest in climate-related opportunities.

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	Incentives applied by Cimsa to achieve the targets including climate-related performance indicators to accelerate the transition to a low carbon economy and strength responsible production practices.

C1.3a

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

Entitled to incentive	Type of incentive	Activity inventivized	Comment
Chief Executive Officer (CEO)	Monetary reward	Emissions reduction target Energy reduction target Behavior change related indicator Company performance against a climate-related sustainability index	The CEO is the main responsible of the performance, driven by ÇİMSA and defined KPIs. KPIs are defined as energy reduction per ton of clinker, reducing the use of fossil fuels by increasing the use of alternative fuels, decrease clinker / cement ratio which directly affects the GHG emission because of the clinker incorporation rate, increase the use of alternative raw materials instead of natural additives. Also SDG target achievements are reporting to CEO. Risk management is in the basis of our company management and "Risk Assessment Table" is a living document. It has both strategy side and the operational units side. High and Very High Risks are shared to both Management & Sustainability Committee to review the advised alternative solutions and approve the budget. The investment decision of climate related risks and opportunities is the responsibility of both Management and Sustainability Committee under the control of CEO. CEO also has monetary reward about change management.
Other, please specify (CTO - Chief Technical Officer)	Monetary reward	Emissions reduction project Energy reduction project Efficiency project	In the cement industry; emissions could be particularly reduced by three ways; -Increase the ratio of additives to clinker, -Increase energy efficiency -Increasing the use of alternative fuels. These issues are defined as KPIs for CTO and facility managers. Chief Technical Officer is in the sustainability committee and has responsibilities for assessing and managing sustainability risks and opportunities. The main KPIs are defined as energy reduction per ton of clinker, reducing the use of fossil fuels by increasing the use of alternative fuels, decrease clinker/cement ratio which directly affects the GHG emission because of the clinker incorporation rate. Bonus is delivered as a monetary reward once a year according to the KPI's therefore there are monetary rewards for climate-related issues for CTO.
Other, please specify (Environment & Sustainability Executive)	Monetary reward	Company performance against a climate-related sustainability index	It is the responsibility of the Environment & Sustainability Executive to ensure compliance with legislation, including the Regulation on Monitoring of Greenhouse Gas Emissions. The Environmental Executive supports Environmental Leaders located at each facility. Integrated Reporting, Climate Change Management (including CDP-Climate Change and CDP-Water Reporting), environment and waste management legal compliance on the environment are main KPIs.
Facilities manager	Monetary reward	Emissions reduction target Energy reduction project Energy reduction target	Cimsa has five integrated plants in Mersin, Eskişehir, Kayseri, Niğde and Afyonkarahisar, as well as one grinding facility in Ankara . In each facility; Facility Managers are the main responsible contacts for energy efficiency, emission reduction, waste management processes. The main KPIs defined as energy reduction per ton of clinker, reducing the use of fossil fuels by increasing the use of alternative fuels, decrease clinker/cement ratio which directly affects the GHG emission because of the clinker incorporation rate, increase the use of alternative raw materials instead of natural additives. Bonus is delivered as a monetary reward once a year according to the KPIs, therefore there is a monetary reward for the performances of Facility Managers.
All employees	Monetary reward	Behavior change related indicator	ÇİMSA has a suggestion system for employee engagement and continuous improvement. Not only employees who have Environmental KPIs, but also all employees are included and encouraged to provide suggestions for improvements in Climate Change Management. The system is called "Idea Factory" and the suggestions are assessed by relevant experts on each topic. As a conclusion; ideas are assessed and the ones evaluated as suitable or applicable are rewarded with cheques according to the value creation of their ideas.
All employees	Non-monetary reward	Behavior change related indicator	ÇİMSA has a suggestion system for employee engagement and continuous improvement. Not only employees who have Environmental KPIs, but also all employees are included and encouraged to provide suggestions for improvements in Climate Change Management. The system is called "Idea Factory" and the suggestions are assessed by relevant experts on each topic. As a conclusion; ideas are assessed and the ones evaluated as suitable or applicable are rewarded both by cheques and "Certificate of Appreciation". The certificate of appreciation is given in a meeting with the participation of Management, therefore it also gives recognition to the rewarded employee.
Other, please specify (Waste Management Manager)	Monetary reward	Please select	Waste Management Manager is responsible for; -Increasing the usage of alternative fuel in cement plants, -Environment and waste management. The KPI of alternative fuels increases results in decreasing of fossil fuels and CO2 emissions. A certain amount of profit is shared as a monetary reward by the achievement of the relevant indicators.
Other, please specify (Logistic Operational and System Development Manager)	Monetary reward	Supply chain engagement	In 2019 Cimsa defined its value chain and focused on supply chain. The company grouped possible high environmental impact suppliers and requested information from the companies in terms of environmental impacts including climate change. The increased engagement levels are responded as a monetary reward in Çimsa.

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	1	3	Projections were done based on short term risk and opportunities which expected not to have wide variation. Short terms projections based on climate change is mostly about expected extreme weather conditions like storm, droughts, and floods. It also covers foreseeable regulations about climate change.
Medium-term	3	5	Medium-term horizon projections are mostly based on the trends that may occur between 3 to 5 years. Risk and opportunities about climate change are in the transition with the driving force of SDG's to low carbon economy. The risks and opportunities defined for the medium-term are mostly board strategy level and contains strategical decisions to be in line with the low carbon economy transition.
Long-term	5	20	Long term horizon projection is mostly strategic planning to give guidance to our company about customer behavior or production model changes. It is also linked with our asset management, new investment plans in terms of geography and product development. Most of the climate change effects are expected to occur in this time horizon. Most of the risks and opportunities in this time horizon are related to technological developments and R&D. Using biomass waste to reduce GHG emissions and alternative energy sources are in this horizon. Also, researches in carbon capture technologies are in the future plans of the company.

C2.1b

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

Risk management is a fundamental function for Çimsa, constituting a key foundation in the decision-making process. All risks and uncertainties, whether or not they come under the control of Çimsa, present dynamic and varying characteristics. Within the scope of its business cycle, the policies and approaches Çimsa has followed or will follow in tackling risks and uncertainties have a critical bearing on the sustainability of the business cycle.

Within the scope of its business cycle, the policies and approaches Çimsa has followed or will follow in tackling risks and uncertainties have a critical bearing on the sustainability of the business cycle. In order the minimize the possible impacts of these risk factors on the Company's operations, Çimsa has been elaborating policies and actions plans for each risk category and has been implementing these within the scope of its daily business cycle.

Çimsa's risk management framework defines and manages risks with an approach to support the Company's strategic priorities and maintain the Company's future financial health and flexibility. The risk management approach is shaped by the continuous tracking of the risks to which Çimsa is exposed, the risk appetite and the changes in risks over time. In addition to defining the general limits of the Company's risk appetite, the Board of Directors of Çimsa periodically monitors the development of risks and shapes the guiding policies and decisions in this field. Strategical plans are supported with quantitative risk and opportunity evaluation reports.

A risk matrix where risks are placed by their impact and likelihood is used for the calculation. Çimsa applies integrated risk management and categorizes all its risks based on the capital management model in the company to monitor and diversify the risks better. Six capitals defined the company implements risk assessment which are financial capital, manufactured capital, intellectual capital, human capital, social and relational capital, natural capital. One of the most important things in risk assessment is to define the level of risk. For 2020, the substantive financial impacts are defined as risks more than 20,000,000 TL and 15,350 tonnes of production loss. Strategical impacts on the business are defined as;

- Effect 50% of Cimsa clients
- Loss of critical supplier and not creating an alternative supplier
- Effect 50% of Cimsa employees
- Bad reputation internationally and on digital platforms
- The operation shut down by official authorities

Cimsa use impact If the result of the risk assessment quantitatively or qualitatively contains one or more from the list above then it is decided as high risk that might have a strategical impact on our business. All related departments have to define the solution with its cost to provide a clear picture of risk management.

As per the risk management procedure of Cimsa, all risks defined by the department are reviewed by the department manager and submitted to the Corporate Risk Department. The Corporate Risk Department reviews the risk and if it is defined as high it is submitted to the related committees. For climate-related risks-high risks are submitted to the Management Committee(MC) and Sustainability Committee(SC).

The issues that have an impact on business are to minimize and prevent the impacts of climate change; yearly very comprehensive insurance is being taken, accelerated investment in R&D and energy efficiency.

On the other hand application of sustainability and emission reduction initiatives provide access to green finance based on ESG ratings.

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
Identification and monitoring of the probable risks that the company could encounter forms the basis of risk management. Corporate risk management practices are carried out in line with the risk management and practices procedure applied by group companies of Hacı Ömer Sabancı Holding A.Ş., one of our partners. The risks which the company could likely encounter were classified based on their priorities and critical risks are monitored by the senior management of the Company and the Board of Directors. The risks are insured under the local and global policies following Sabancı Holding's risk policies to minimize the risks, which could directly impact the Company's financial status, for all plants. The Corporate Risk Management Department operates to ensure the effective execution of corporate risk management. Processes to be applied for effective risk management on a company basis have been developed and implemented within the Corporate Risk Management Department. The department systematically measures, assesses and prioritizes the operational, financial, strategic and external risks which could prevent the company from reaching its general strategy and goals, and the company regularly monitors the identified critical risks. The Corporate Risk Management Department reports its activities, whether or not the current actions had the desired impact and improvement on the risks, and the results obtained to the Corporate Governance Committee at meetings held throughout the year. Risk management activities and their effectiveness are assessed by the committee and shared with the Board of Directors. Developments taking place on a global scale in 2020 strongly emphasized the importance of the risk management perspective in companies. The world has spent a year under the shadow of an unexpected pandemic and rounded off the year with an economic contraction. CIMSA General Risk Management Process Applied in Terms of Climate Change: Integrated risk management applied to all processes of Cimsa. The Corporate Risk Management department merge all identified risks and climate-related ones are reporting to the highest level of committees are Sustainability Committee(SC) and Management Committee(MC) led by the CEO for assessment and responding to climate-related risks and opportunities, Sustainability Committee(SC) led by CEO consists of the members of ; Vice General Managers, Operational Excellence Group Manager, Waste Management Manager, Corporate Risk Manager, Strategic Planning and Project Management Office Coordinator, Corporate Communications Manager, Financial Planning and Analysis Manager and Environment and Sustainability Executive as a committee secretary. The responsibility of the Sustainability Committee is to follow the expected regulations that might have a high financial impact on business, developments in low carbon products, and potential high impacts of global reports like IPCC and Global Cement Industry and international conferences. The members of SC have responsibilities in relations with policymakers and the NGO's who work about climate change for the cement industry. Those responsibilities create the vision and give a clear picture of the changes that might occur because of climate change. As one of the highest level committees in the company, the Sustainability Committee, with these responsibilities, review the action plans proposed to manage the risks including climate-related risks with the vision of a high level of sustainability knowledge. The second committee is the Management Committee(MC). Management Committee with Sustainability Committee has the responsibility to approve the budgets of the action plans proposed to manage the high and very high risks. The Sustainability Committee has Working Groups(WG) from each department to assess the risks including climate-related risks. For example, if the risk is about regulation its environment and sustainability department and CTO's responsibility to define the risk and follow the approved actions. If the risk is about customers its Marketing Department and R&D's responsibility, for technological risks, Plant Managers are responsible and for Opex, CTO is responsible to define the risk and follow the approved action plan. Cimsa also applies ISO 9001&14001 management systems which refer to the ISO 31000 risk management standard. Under the leadership requirements, it is also each department's responsibility to define the risks at the process and asset level. If a risk is identified by the department after reviewing the manager of the department, the Corporate Risk Department is informed about the risk. All risks that are shared with the Corporate Risk Department are grouped as per the risk procedure of the company within 6 risk capitals which are financial capital, manufactured capital, intellectual capital, human capital, social and relational capital, natural capital. Natural capital covers environmental and air emissions management, climate&energy, water management, waste management, biodiversity, and ecosystem development activities and recycling, and circular economy. In the risk assessment procedure, the financial impact of the risk and cost of risk management has to be identified to understand the potential size of the risk and to give a clear picture to the decision-makers. The substantive impacts have been defined in question C2.1b. Once the risk is identified as high or very high, it is shared with the Management Committee (MC) and Sustainability Committee(SC) which are the highest level of committees for climate change, for the review and approval of the proposed action plan budget. Case study for physical risk/opp. in 2020 was about EU Green Deal Regulation. Based on the EU 55% emission reduction target by 2030, the financial impacts of the exported amount of cement has been studied.

Value chain stage(s) covered
Direct operations

Risk management process
Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment
Annually

Time horizon(s) covered
Long-term

Description of process
Cimsa is an asset-intensive company because of its sector and that brings the need for being long term oriented. Besides the general application of risk management procedures, technological risks are closely followed in our direct operations. The identified risks on-site are shared with the Plant Manager in line with our general risk application. The difference or detail on risk management of direct operations on site is the solution alternatives on technological risk reviewed in terms of low carbon alternative investments. Since the transmission to low carbon period and the lifetime of our investments are both long term we focus to be in line with the low-carbon future. The advice solutions are also reviewed by Chief Technical Officer and then again in line with the general risk management procedure it is shared with the Corporate Risk Department to categorize the risk and as per the result, it is shared with the Sustainability Committee and Management Committee for the approval of action plan budgets. As an example of long term investments, WHR investments followed this path

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Value chain stage(s) covered
Upstream

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

Description of process
Besides the general application of risk management procedures upstream risks related to climate change in our value chain are focused on by the Logistics Operations & System development Department. Cement production is based on a natural mine which we supply from different locations. Gathering raw materials from different locations contains supply chain risks. As a strategy, our objective is to be operated in all three continents which are in line with our objectives to reduce our supply chain emissions. The management solutions in our supply chain risks are reviewed in terms of emission management of our value chain. The risks and alternative solutions are shared with the Corporate Risk Department in line with the general risk management procedure to categorize the risk and as per the result, it is shared with the Sustainability Committee and Management Committee for the approval of action plan budgets. An example of supply chain risk was occurred due to COVID-19 at the end of 2019. Climate change may also increase the possibility of a pandemic due to changes in temperature and tolerances of wild animals. It is expected to have more intersection with the wild animals and that might increase the possibility of a pandemic. Since we were supplying bauxite from abroad our supply chain teams developed a new supplier from

Turkey to use instead of bauxite from abroad. This alternative provided us with a decrease in supply chain emissions.

Value chain stage(s) covered
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

Description of process
Besides the general application of risk management procedures downstream risks related to climate change in our value chain are focused by the Strategical department, Sales & Marketing Department, and R&D. The consumer expectations are in a big transition and we invest to R&D for low-carbon product development. Risks about new products identified by the sales and marketing department are reviewed by the strategical department and R&D in terms of cost and possibility of development of a product as a solution. The risks and alternative solutions are shared with the Corporate Risk Department in line with the general risk management procedure to categorize the risk and as per the result, it is shared with the Sustainability Committee and Management Committee for the approval of action plan budgets. As an example, a low carbon product development has increased because of the demand from the sales teams, and with the research of the R&D and the strategical Department, FLUX is developed and sold to the market.

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	Despite Kyoto Protocol and Paris Agreement are not ratified by the parliament, the regulations mentioned below are binding for the cement industry. PMR (Partnership of Market Readiness) project - funded by World Bank- which will propose market-based emission reduction policy instruments such as emission trading system and the carbon tax is now under second development phase. As the product of the PMR project's first phase, the only regulation directly related to climate change is "GHG Monitoring Reporting Verification" regulation which is in force since 2015. As Cimsa we are always committed to being in line with the current regulations which we do meet all the requirements. CIMSA publicly shares reports since 2015 on verified data and uploads MRV results into the system of the Ministry of Environment and Urbanization. In this CDP report, the verified Scope 1 data is referred to in line with the current regulation and there is no financial sanction expected as we did not define any risk relevant to the current regulation. Zero Waste regulation also brought the opportunity of different supply channels for alternative fuel and increased the significance of collective action on environmentally friendly disposal of waste. Entailed to this opportunity, the properties and profile of the alternative fuel emerged as a risk because ÇİMSA needs certain fuel properties for sustaining the standards in its processes. In this regard, ÇİMSA develops solutions with municipalities and other solution partners for improving waste separation and characterization.
Emerging regulation	Relevant, always included	There are 2 emerging regulations that are related to our sector in terms of climate change. The first one is ETS which is going to be framed under the PMR project under the PMR project's second phase alongside the draft climate law. A pilot study for trade or tax payment on GHG is expected to last for 3 years. Since the cement industry is the second energy-intensive sector globally after steel and iron, when cap and trade or carbon tax will be in force, it is very likely that it will affect ÇİMSA. ÇİMSA integrates this risk into its risk assessment and expects that carbon price will be around 30 Euros/ton parallel to the EU ETS market. The second one is the EU Green Deal which may put the carbon tax as per Carbon Border Adjustment Mechanism (CBADM) at EU border for the products which were not taxed in their country of origin. Since ÇİMSA is not obligated for paying carbon tax in Turkey in the current context, this regulation poses a potential risk for Cimsa. EU Green Deal Adjustment accelerated the application of ETS in Turkey and ÇİMSA might be exempted from CBADM in case ETS comes into force in Turkey. This risk evaluation is also presented in the CDP Report with the assumption of 30 Euros/ton carbon price for the exported cement and this price will be updated according to the changes in CBADM carbon tax.
Technology	Relevant, always included	Climate change-driven technology risks and opportunities are highly relevant for CIMSA as a company having high-tech processes. Conducting energy-saving projects and minimizing energy consumption is the utmost goal for decreasing GHG emissions. In this regard, the deployment of CCS (Carbon Capture and Storage) technologies and its adaptation to the existing system also plays a key role while bringing risks and opportunities. The adaptation process itself, as well as modernization requirements in some of the plants, pose risks meanwhile the technology brings a unique opportunity of achieving net-zero emissions. Considering the transition period to the new technology, the main risk is seen as some of the plants might work under full capacity or the activities might be suspended considering the technology risks combined with the burden of carbon pricing. Alternative fuel use is another technological risk due to the need for alternative fuel supply with desired properties in increasing amounts. For this reason, R&D studies are conducted for alternative fuel development and enhancing fuel properties. Furthermore, availability of the alternative fuel is important in terms of providing continuity of supply. The cement industry collaborates with municipalities and water treatment facilities for the supply of alternative fuel in large amounts which occurs as an opportunity and win-win situation at waste management.
Legal	Relevant, always included	Climate change is not defined in any law in Turkey and Kyoto Protocol and Paris Agreement are not ratified by theTurkish parliament. The only direct regulation currently impacting our industry is GHG Monitoring, Reporting and Verification which has no enforcement. In this context, climate change-related legal risks are not at a high level that may affect our company activities. Even though there is no legally binding potential financial burden and expected legal risk, any climate-related litigation is closely monitored and evaluated by CIMSA in order to be aware of potential risks. An example of such a case can be a lawsuit sued against a carbon emitter by a certain group of people adversely affected by climate change due to the carbon emitters' activities.
Market	Relevant, always included	Çimsa is aware that risk that arose from the market is of great importance to its business continuity and economic growth. Climate Change related changes in customer behaviour and product development which can have impacts like the decline in sales or a change in product portfolio are evaluated and monitored by Strategy, Sales, Marketing and R &D departments. The main risk determined is the increased demand for low carbon products which is found out to be mid-level through stakeholder surveys. In this regard, CIMSA heavily invests in low carbon product development and the R&D department focuses on the use of low-carbon products and takes part in international conferences. CIMSA is preferred by many customers due to the LCA results in EPD certificates. EPD certificates bring a wider perspective on environmental aspects during product development and show CIMSA's sensitivity to environmental and climate change issues. If there is demand towards the development of the low-carbon product by customers, it is first financially evaluated by the risk department with its potential impact on the company due to lacking this product. After its approval by Risk Department, the product is developed with the contributions of Alternative Fuel, Sustainability, Technical Support Line, Marketing and Sales departments.
Reputation	Relevant, always included	Even though the regulations and legal system do not refer to climate change and legal framework do not pose any risk that may jeopardize company reputation in Turkey, public opinion regarding the impact of companies on the environment and climate is significant for the company reputation. In this point, CIMSA takes reputational risk into account that may affect sales and economic performance, considering the fact that the cement industry is stigmatized due to high GHG emission rates. As one of the fastest-growing companies of Sabancı Group - one of the largest conglomerates in Turkey- CIMSA portrays good economic performance and keeps up with recent global developments in its own industry. Thus, CIMSA is a prestigious modern company in the Turkish cement industry targeting global leadership at white cement production. Environment and Sustainability Department, Corporate Risk Department, Corporate Communication and Investor Relations Department responsible for managing and monitoring reputational risks. Yearly stakeholder consultations are carried out and in case of receiving negative feedbacks from external stakeholders, it is evaluated by the responsible departments and tried to be neutralized with respective measures.
Acute physical	Relevant, always included	As per IPCC 5. assessment report, extreme changes are expected in the next decades. Acute events like cyclones and floods can pose risks to our direct operations in our production sites and indirect operations such as the supply of the raw materials and transport of goods to the customers. For these scenarios of extreme weather events, CIMSA has insurance -managed by the Corporate Risk Department- that can cover the damage faced on CIMSA's production facilities. Considering problems that may occur in transportation due to extreme weather events, we added local suppliers at the end of 2019 and along 2020 as alternative raw material providers to overcome potential interruptions in manufacturing. In this regard, business continuity and supplier diversity plans are under development in line with company strategy prioritizing localization of suppliers and decreasing Scope 3 emissions. The renewal of infrastructures may be an opportunity due to the damages that occurred with extreme weather events.
Chronic physical	Relevant, always included	According to the IPCC 5. Assessment Report, extreme precipitation patterns and droughts are expected to realize with medium confidence in our geography as it is also stated in IPCC Special Report on Climate Change in 2018, IPCC 1,5 degree Special Report water scarcity is a high risk for our Mediterranean basin. Considering the vital role of water availability in cement/concrete production, water scarcity is taken into account as a chronic physical risk to CIMSA's risk assessment. CIMSA also conducts R&D activities for low water consuming products and looks for decreasing the water footprint in its processes. In this regard, CIMSA strictly applies ISO 14046 - Water Management Standard in all manufacturing facilities and follows water consumption rates to reduce water consumption levels. Water management and control of consumption rates are under the responsibility of the Environment and Sustainability Department as well as the production facilities.

C2.3

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

Yes

C2.3a

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

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation	Carbon pricing mechanisms

Primary potential financial impact

Increased indirect (operating) costs

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
Based on EU Green Deal regulation, Carbon Border Tax is defined as a risk that occurs from emerging regulation because it will be in place if the carbon tax of the product exported to the EU is not paid locally (if there is no ETS mechanism in the country) at the same price in EU. If this tax starts carbon tax of all exported products will be paid to the EU. It is certain that the cement industry will be affected by these kinds of regulations which put a price on carbon because it is the third-largest consumer of energy and the second-largest industrial emitter after the steel industry with 6% of global emissions (IEA, 2017). When Local ETS, Carbon Tax or Carbon Border Tax starts to be in place, our operational costs will increase. Higher operational costs will be reflected in sales prices and this might create competitive advantages for our neighbouring countries.

Time horizon
Medium-term

Likelihood
Very likely

Magnitude of impact
Medium-low

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

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
624364

Potential financial impact figure – maximum (currency)
758195

Explanation of financial impact figure
The EU exported tonnes of cement used for the calculation of financial impacts. Three scenarios were studied based on the price of carbon. The minimum impact was calculated with 46,28 Euro/ton CO2 price and the highest impact was calculated with 56,20 Euro/ton CO2 price.

Cost of response to risk
2000000

Description of response and explanation of cost calculation
Cimsa is engaged with NGO's and support sectoral reports for the development of applicable regulation. Also in connection with ministry and CEMBUREAU. Management of emerging regulation in terms of emissions, Cimsa is focused on decreasing the Scope 1 emissions which is in line with the PMR Project scope. To reduce scope 1 emissions; * Lobbying with related Ministries and Municipalities for SRF production. * Market development for low carbon products like CAC. * To follow production processes with energy efficiency measurements, * To improve process efficiency, * Investigation of Carbon Capture and Storage Technologies. In 2020 Horizon 2020-HyperCog project continued. The project aims to reduce environmental impact and natural resource consumption and digitalization on production. The budget of the project is defined as the cost.

Comment

Identifier
Risk 2

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

Risk type & Primary climate-related risk driver

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

Primary potential financial impact
Decreased revenues due to reduced production capacity

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
The cement sector is dependent on natural resources (limestone and etc.) Extreme weather events may bring some difficulties in terms of raw material supply to cement plants. In 2020, we defined raw material supply interruption risk because of Coronavirus and supply of bauxite interrupted which we use for our low carbon products (Flux and CAC50) production. We have technological capacity for low carbon production however raw material loss or disruptions in supply are defined as risks for our company.

Time horizon
Short-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)
14532000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
The financial impact of raw material(Bauxite) supply interruption has been studied as a scenario and expected figure is based on the 0,7% of revenue loss.

Cost of response to risk
0

Description of response and explanation of cost calculation
With the possibility of raw material supply interruption, our supply chain team developed an alternative raw material contains aluminium. Our R&D team is also working on the project and especially the results for FLUX is achieved for expected industrial production. This provides the company decrease in the logistic costs and scope 3 emissions caused by the transportation of raw materials. For special products like low carbon, customer expectations may change and Cimsa focus to develop the product based on customer expectations with still keeping it as low carbon product.

Comment

Identifier
Risk 3

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

Risk type & Primary climate-related risk driver

Market	Changing customer behavior

Primary potential financial impact
Decreased revenues due to reduced demand for products and services

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
The increased level of awareness on climate change may impact the revenues on our traditional cement production because as an industry cement has an emission intensive production. Consumer preferences may change to choose low carbon products, alternative building concepts.

Time horizon
Long-term

Likelihood
Likely

Magnitude of impact
Medium-low

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
10380000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
The potential financial impact has been calculated based on %0,5 of revenue in the scenario of decreased demand of traditional products. If Cimsa could not complete the development and production with a high amount of volumes of low carbon product (CSA), the market will choice competitors. Low carbon product market capacity has been defined as the potential financial risk impact.

Cost of response to risk
450000

Description of response and explanation of cost calculation
Cimsa has a powerful/capable R&D department for product development that can meet the expectation of clients in terms of the low carbon product. In 2020 with this awareness and mitigation studies the company continued to work on the new product development and as an action plan of the risk analysis a low carbon cement CSA(Calcium sulfoaluminate) production has been started in the industrial area. It has lower emissions during the production phase than Portland Cement. As per Cimsa strategy to accelerate R&D the company aim to increase the production of CSA in the industry. R&D budget to develop CSA as a low carbon product has been defined as the cost of management.

Comment

Identifier
Risk 4

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

Risk type & Primary climate-related risk driver

Technology	Substitution of existing products and services with lower emissions options

Primary potential financial impact

Increased indirect (operating) costs

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
There are limited ways to provide emission reduction in cement production with the existing technologies. One of them is increasing the use of alternative fuels. Based on Sabancı Holding's commitment to being net-zero Cimsa also started to define its low carbon transition plan. The first phase is the target set to increase the use of alternative fuel by 23%. The increased cost for alternative fuel is defined as a risk.

Time horizon
Short-term

Likelihood
Likely

Magnitude of impact
Medium-low

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
14350000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
The total aimed waste amount multiplied with the average price of RDF and liquid waste which is between 200 -250 TL. When the cost of the operation is subtracted, the contribution of alternative fuel use to our natural capital is around 14 Mio TL.

Cost of response to risk
40000

Description of response and explanation of cost calculation
ÇİMSA Environment & Sustainability Executive is chairman of these committees in TCMA. To realize this strategy we are working with NGO's who are working on cement industry and sustainability and Metropolitan Municipalities as well as the Turkish Ministry of Environment and Urbanization.

Comment

C2.4

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

C2.4a

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

Identifier
Opp1

Where in the value chain does the opportunity occur?
Direct operations

Opportunity type
Resource efficiency

Primary climate-related opportunity driver
Use of recycling

Primary potential financial impact
Reduced indirect (operating) costs

Company-specific description
Alternative fuels are one of the levers to reduce GHG emissions in the cement industry. The alternative fuel usage rate of cement plants in Turkey is around 4.75%. In order to increase this value, Environment and Climate Change and Alternative Fuels, Alternative Raw Materials Committees of TCMA (Turkish Cement Manufacturers Association) which Cimsa is working, are taking the necessary steps to negotiate with Metropolitan Municipalities and the Turkish Ministry of Environment and Urbanization. In ÇİMSA, in addition to hazardous and non-hazardous industrial alternative fuels, we continue to work on co-incinerating SRF (Solid Recovery Fuel) to increase the alternative fuel usage rate and the objective is 23%. The expected emission reduction will provide an opportunity to decrease the carbon tax payments

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)
5850000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
The use of alternative fuel may provide around 194,905 tonnes of emission reduction. The cost of carbon is accepted as 30 Euro and avoided carbon tax payment is defined as an opportunity.

Cost to realize opportunity
40000

Strategy to realize opportunity and explanation of cost calculation
ÇİMSA Environment & Sustainability Executive is chairman of these committees in TCMA. To realize this strategy we are working with NGO's who are working about cement industry and sustainability and Metropolitan Municipalities as well as the Turkish Ministry of Environment and Urbanization.

Comment

Identifier
Opp2

Where in the value chain does the opportunity occur?
Downstream

Opportunity type
Products and services

Primary climate-related opportunity driver
Shift in consumer preferences

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

Company-specific description
EPD Regulation is under development by the Ministry of Environment and Urbanization. When the regulation is in force, Çimsa will be in an advantageous position due to its products already certified by EPD. Our EPD certified products are as follows; CEM IV / B(P)32,5R (in 2012), ISIDAÇ 40 - Calcium Aluminate Cement (in 2015), Çimsa Super White - CEM I 52,5 R - White Portland Cement (in 2015) certificated from EPD (Environmental Product Declaration)

Time horizon
Medium-term

Likelihood
Very likely

Magnitude of impact
Low

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
2076000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
EPD certified products sold with higher prices and their average weight in our revenue is 0,1%. The potential financial impact has been calculated with the multiplication of revenue (2,076,000,000) with 0,001.

Cost to realize opportunity
90000

Strategy to realize opportunity and explanation of cost calculation
50% of our revenue comes from EPD certified products. Especially in CAC and white cement EPD certification is more requested by our clients. Our EPD certified products are; Super White (Blended Cement) White Portland Cement Grey CEMIV Blended Cement CAC (CAC 40, RECIPRO40, REFRO40, RESISTO40) To get the benefits of this opportunity, we did EPD (Environmental Product Declaration) certification for some of our products. After getting the certification has been done. Three certification cost has been added to realize the opportunity.

Comment

Identifier
Opp3

Where in the value chain does the opportunity occur?
Downstream

Opportunity type
Products and services

Primary climate-related opportunity driver
Other, please specify (Repairment of climate change effect)

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

Company-specific description
As per IPCC 5. assessment report, extreme changes are expected in the next decades. Acute events like cyclones and floods can pose risks for the infrastructures. These scenarios of extreme weather events may create a sales increase of cement because of the repairment of the construction.

Time horizon
Long-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)
20760000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
For the scenario, we assume a 1 % increase in our revenue potential. In 2020 the revenue of Cimsa was 2,076,000,000 TL.

Cost to realize opportunity
80300000

Strategy to realize opportunity and explanation of cost calculation
We have four different production plants and it provides us to gain sales income from different sales points. Investment to increase the production capacity sampled with Nigde Plant and it is added as the cost of management.

Comment

C3. Business Strategy

C3.1

(C3.1) Have climate-related risks and opportunities influenced your organization's strategy and/or financial planning?
Yes, and we have developed a low-carbon transition plan

C3.1a

(C3.1a) Is your organization's low-carbon transition plan a scheduled resolution item at Annual General Meetings (AGMs)?

	Is your low-carbon transition plan a scheduled resolution item at AGMs?	Comment
Row 1	No, but we intend it to become a scheduled resolution item within the next two years	Cimsa is a stock market company and its main shareholder is Sabancı Holding. In 2021 Net Zero Target has been set to Sabancı Holding companies including Cimsa. Low-Carbon transition plan studied planned for 2021.

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?
Yes, qualitative and quantitative

C3.2a

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

Climate-related scenarios and models applied	Details
RCP 4.5	ÇİMSA adopts the RCP 4.5 scenario while formulating the transition to a low carbon economy. The RCP4.5 scenario is defined by IPCC as an intermediate stabilization pathway with medium confidence projecting global surface temperature change for the end of the 21st century more likely than not to exceed 2°C relatives to 1850-1900. The highest negative impact scenario under these circumstances affecting our geography of operations is based on IPCC 5th assessment report pointing the increasing chronicle effects of extreme weather events IPCC 1,5 C Report, updated the increasing water scarcity risk for Mediterranean basin in 2020. Even though water scarcity is indirectly affecting ÇİMSA's operations, ÇİMSA takes all potential climate change triggered risks into account with chronic risks in long term and the acute effects in a short term into account with increased frequencies are integrated to 15 years for scenario analysis.
Nationally determined contributions (NDCs)	We used scenario analysis for our risk and opportunity assessment. We used company-specific data were available and publicly available data for the assumptions. AS per the INDC Report of Turkey our country is going to apply a 21% reduction from business as usual scenario by 2030. Sectoral allocation is not defined in Turkey that's why we accepted EU ETS caps for the cement industry to define the financial impact of the risk. It is used for all facilities of Çimsa and the data is used to calculate the potential impact for one year. For the price of carbon, we used the PMR project report which is under the control of the World Bank to develop ETS in Turkey. The carbon price is assumed as 30 Euros/ton for the risk assessment under the scope of the 2020 CDP Report. As per the conservativeness principle of our risk procedure, we gave the lowest and highest financial impacts that might occur.
2DS	Çimsa used the 2DS scenario in climate change scenario analysis based on IEA-GCCA Cement Low-Carbon Technology Roadmap. The time horizon of the analysis is 2030 in line with SDG's target year and our long term horizon. Two of the critical uncertainties used for the scenarios were regulatory changes and stakeholder expectations and 4 scenarios were studied. The highest impact is expected with the high emission prices due to regulatory changes and increased demand for low carbon products. The results analyzed and transition plan to low carbon economy decided as the main issue to manage the results. Our plan is based on the increase in alternative fuel use. At each manufacturing plant, the alternative fuel has been studied and its expected 2030 objectives can be met. However, for B2D and a longer time horizon like 2050 requires more investment in R&D, and based on the roadmap CCUS technology development is required. This project was studied by Sustainability Working Group. Company-specific data where available and publicly available data for the assumptions have been used. The results are reported to the Sustainability Committee. The investment plans were discussed by the Sustainability Committee and Management Committee which consist of board members of the company.

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 change-related risks such as the sudden shifts to products with a lower carbon intensity that CIMSA cannot meet always exist. However, CIMSA is at the opportunity front since it has a history of developing low carbon products and taking part in international R&D projects regarding decreasing the carbon intensity and using alternative materials. In 2020, CIMSA carried out new product development projects with different raw material compositions and lower processing temperatures which will come to an end in 2021 and this product will take its place in a sustainable product portfolio. EU financed Iceberg project under the scope of Horizon 2020 started in May 2020 where CIMSA as a participant responsible for environmentally friendly cement production and development and optimization of concrete based products. Along with this project, there will be cooperation among participants in the re-use of building rubbles as cement material for ultra-light wall components and incorporation of green sawdust in cement panels. In this regard, it can be summarized that CIMSA actively takes actions in order to enhance its products and services as drawing results from the feedbacks of stakeholders' in expectation of environmentally friendly products. ÇİMSA adopts a life cycle approach and targets developing low environmental impact products to meet the changing customer preferences, adapting to the chronic physical conditions that climate change poses.
Supply chain and/or value chain	Yes	Climate change-related supply chain risks and opportunities are evaluated as potential disruptions in material supply due to extreme weather events or other adverse factors like the pandemic affected our activities in 2020. This fact put to the front, the nearshoring option and evaluation of suppliers from closer geography. Developing new suppliers from closer distances leads to lower Scope 3 emissions as well. In this regard, suppliers of CIMSA are going to be evaluated with the criteria of transportation emission. In 2020, CIMSA continued to inform its suppliers about the CIMSA's approach regarding climate change mitigation actions and requested emissions information from their suppliers as done earlier in 2019.
Investment in R&D	Yes	GCCA & IEA puts R&D investment at the centre of its low carbon roadmap for the cement industry which is also taken into account in CİMSA's scenario analysis. CİMSA gives utmost importance to developing low carbon products and accordingly approaches climate change-related R&D investments as an opportunity at widening the range of low carbon products. Besides increasing the share of alternative fuels and minimizing energy use, CIMSA plans to adopt Carbon Capture and Storage Technologies in long term.
Operations	Yes	The regulatory changes are expected to influence CİMSA's operational costs particularly due to the expected Emission Trading System and emission tax on the direct emission of the company operations. In order to overcome this drastic change in operational costs, CIMSA prioritizes decreasing its GHG emissions by increasing the use of alternative fuel in the next 5 years as is taken into account in scenario analysis.

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 Capital expenditures Capital allocation Acquisitions and divestments Access to capital Assets	The low carbon transition has been started both globally and in Cimsa so climate-related issues already impacted (and we expect more in the future) financial planning. Since now we did investments in WHR for energy efficiencies, R&D for new and low carbon product development so they are all examples for CAPEX and capital allocations. Cimsa set a strategy to be in all 3 continents in line with its supply chain emission management. With the acquisition of manufacturing plants where she already sells products, the value chain emissions will decrease which is more complex to control when compared to direct emissions. Çimsa has reached an important and new stage of its globalization process with its breakthrough in Spain immediately after the investment it started in the US in 2017. By 2023 we expect a 20% emission reduction in our supply chain emissions from the exported products to the USA when compared to 2015. Revenues have been affected based on the stakeholder expectations as Cimsa chose it as one of the critical issues in its scenario analysis. Customers expect low carbon products and we invest to develop low carbon products and explain them in the market to accelerate the sales of low carbon products.

C3.4a

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

Çimsa is an asset-intensive company with high emissions due to its sector and follows the climate-related issues to perform fully integrated into the low carbon transition that continuing globally.

The Climate Change Strategy of the company is to perform annual greenhouse gas emission calculations in accordance with greenhouse gas inventory studies, to designate goals for future projections and to develop solution methods to reduce emissions.

Çimsa set a **Target** to cut its total gross CO2 emissions from grey clinker production by 5% by 2025, with respect to 2017 levels.

The target is to reduce the CO2 rate per ton of clinker by 1.95% in 2025, based on 2015 figures. It is achieved in 2020 with the intensity level of 855 tCO2e/ton clinker.

The list of measures to carry out to achieve this goal is as follows and in line with GCCA of the WBCSD;

• To follow production processes with energy efficiency measurements,

• To improve process efficiency,

• To increase the cement content ratio,

• To use alternative energy resources.

Beyond those targets Cimsa started to work on its **value chain emissions** and being in 3 continents strategy has been defined in line with its future targets to reduce value chain emissions which is more complex to manage.

In Cimsa strategy development about climate change is under the Sustainability Committee which is led by the CEO and the members include executive board members. As a company that has a target to be the global leader on white cement Cimsa focus on risk management. All risks have time horizons and the company identifies, assesses, and applies the risk solution as per its climate change strategy. All risks and opportunities related to climate change and financial effects on the company. Regulatory changes and stakeholder expectations have the highest impacts as per applied scenario analysis. To manage the impacts especially in long time horizon impacts which might have higher financial impacts technological developments strictly followed. Since our assets have a long technical lifetime (more than 20 years) it's defined as a critical issue to invest in low emission technologies.

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?
Both absolute and intensity targets

C4.1a

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

Target reference number
Abs 1

Year target was set
2018

Target coverage
Business division

Scope(s) (or Scope 3 category)
Scope 1

Base year
2017

Covered emissions in base year (metric tons CO2e)
4148165

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)
78

Target year
2025

Targeted reduction from base year (%)
20

Covered emissions in target year (metric tons CO2e) [auto-calculated]
3318532

Covered emissions in reporting year (metric tons CO2e)
4237076

% of target achieved [auto-calculated]
-10.716907355421

Target status in reporting year
Underway

Is this a science-based target?
No, but we anticipate setting one in the next 2 years

Target ambition
<Not Applicable>

Please explain (including target coverage)
We produce three types of (Grey, White, and CAC) cement and ready-mixed concrete. Our total emissions occurred from all types of our products. The target is set for the gross Scope 1 emissions of grey cement production which covers 69% of our total gross Scope 1 emissions. Our gross grey cement Scope 1 emissions for 2017 is 4,148,165 tCO2 and we aimed to decrease it to 3,940,757 tCO2 by 5% reduction. Our grey cement Scope 1 emissions are 4.237.07 for the year 2020. The grey cement production has increased by %22 compared to baseline, therefore actual emissions are increased. Çimsa aims to continuously increase the use of alternative fuels and alternative raw materials in the production process and reduce greenhouse gas emissions.

Target reference number
Abs 2

Year target was set
2020

Target coverage
Business division

Scope(s) (or Scope 3 category)
Scope 1

Base year
2020

Covered emissions in base year (metric tons CO2e)
4237076

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)
75

Target year
2025

Targeted reduction from base year (%)
4.6

Covered emissions in target year (metric tons CO2e) [auto-calculated]
4042170.504

Covered emissions in reporting year (metric tons CO2e)
4237076

% of target achieved [auto-calculated]
0

Target status in reporting year
New

Is this a science-based target?
No, but we anticipate setting one in the next 2 years

Target ambition
<Not Applicable>

Please explain (including target coverage)
There are limited ways to provide emission reduction in cement production with the existing technologies. One of them is increasing the use of alternative fuels. Based on Sabancı Holding's commitment to being net-zero Cimsa also started to define its low carbon transition plan. The first phase is the target set to increase the use of alternative fuel by 23%. 1% increase in alternative fuel use provides a 0.2% reduction in Scope 1 emissions. Therefore 23% increase in alternative fuel use will lead to about 4.6% emission reduction. We produce three types of (Grey, White, and CAC) cement and ready-mixed concrete. Our total emissions occurred from all types of our products. The target is set for the gross Scope 1 emissions of grey cement production which covers 75% of our total gross Scope 1 emissions. Our gross grey cement Scope 1 emissions for 2020 is 4,237,076 tCO2 and it is aimed to decrease it to 4,042,171 tCO2 by 4.6% reduction.

C4.1b

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

Target reference number
Int 3

Year target was set
2018

Target coverage
Business division

Scope(s) (or Scope 3 category)
Scope 1

Intensity metric
Other, please specify (metric tons CO2e per metric ton of clinker)

Base year
2015

Intensity figure in base year (metric tons CO2e per unit of activity)
872

% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure
76

Target year
2025

Targeted reduction from base year (%)
1.95

Intensity figure in target year (metric tons CO2e per unit of activity) [auto-calculated]
854.996

% change anticipated in absolute Scope 1+2 emissions
1.83

% change anticipated in absolute Scope 3 emissions
0

Intensity figure in reporting year (metric tons CO2e per unit of activity)
855

% of target achieved [auto-calculated]
99.9764761232651

Target status in reporting year
Achieved

Is this a science-based target?
No, but we anticipate setting one in the next 2 years

Target ambition
<Not Applicable>

Please explain (including target coverage)
The target cover Scope 1 emissions of grey cement production which covers 76% of our total Scope 1 emissions. The intensity figure is defined as metric tons of CO2e per metric ton of clinker. The intensity is 872 tCO2e/ton clinker for the base year (2015) and it was aimed to decrease it to 855 tCO2e/ton clinker by 2025. The intensity figure for the reporting year is 855 tCO2e/ton clinker and we have already reached our target. New targets will be set in next year in line with Sabanci Holdings' net-zero target.

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?
No other climate-related 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	9	15500
To be implemented*	2	6310
Implementation commenced*	2	22400
Implemented*	1	5374
Not to be implemented	3	750

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	Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)
5374

Scope(s)
Scope 1
Scope 2 (location-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
2925000

Investment required (unit currency – as specified in C0.4)
12633690

Payback period
4-10 years

Estimated lifetime of the initiative
>30 years

Comment
In order to increase energy efficiency, the audit was conducted on-site and improvement points were determined. Potential improvement actions were identified by making energy efficiency measurements. Heat and electricity consumption saving is achieved and it has resulted in decreasing CO2 emissions.

C4.3c

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

Method	Comment
Dedicated budget for low-carbon product R&D	The Cement Research and Application Center located in the Mersin Plant is the 1st Center in the cement industry obtained the status of the Ministry approved R&D center on 28.02.2017. The climate-related R&D projects completed in 2020 are given below. 1-Re-AL: The aim of Re-AL is to decrease production costs by determining alternative domestic resources that can substitute the imported raw material of Flux cement, of which we are the sole producer in Turkey. The use of alternative domestic resources will also reduce emissions. The project cost is 200.000 TL and all of them were financed by equity. 2-HyperCog: In September 2019, work started on the HyperCog project, a part of the Horizon 2020 EU scheme, which will be adopted under the title of developing performance-enhancing digitalization technologies in production technologies and will last for 42 months. The project is planned to optimize the use of natural resources and to reduce environmental impacts, in addition to the digitalization of the white cement production line and improvements in efficiency and product quality. The project cost is 2.000.000 TL and 500.000 TL of the investment was financed by equity. Other application headings made within the scope of Horizon 2020 in 2020 are given below: - Creation of circular economy solutions by using the building materials, which completed their economic life, in the cement production, - Reducing CO2 emissions by producing chemicals with economic value and industrial usage from flue gas by using photocatalytic methods, - Providing industrial heating and cooling by using a new generation solar energy system as part of the efforts to use renewable energy. 3- Calcium Sulfoaluminate Cement (CSA): In 2020 with this awareness and mitigation studies the company continued to work on the new product development a low carbon cement CSA production has been started. It has lower emissions than Portland Cement. As per Cimsa strategy to accelerate R&D the company aim to increase the production of CSA in the industry.
Employee engagement	Employees are one of the most important stakeholders of Çimsa. Employees' role is extremely critical in the achievement of the company's sustainability objectives both in operation and production processes. The behavioral change of employees will both help the integration of sustainability aspects to core business activities and also the achievement of the targets in an effective and efficient way. In 2020, the R&D competencies and the employment of qualified personnel were stepped up, the production studies started to be given weight, and a complete project-based work system has been transitioned into with the development of the R&D center philosophy. In 2020, the number of employees working for R&D increased compared to the previous year.
Dedicated budget for other emissions reduction activities	Çimsa continues to work for the low carbon future with its Climate Change Strategy, Alternative Fuel & Raw Materials Strategy, and Waste Policy set up within the concept of sustainability activities. We aim to reduce our dependency on natural resources and fossil fuels by converting alternative fuels and alternative raw materials into resources, for all our manufacturing processes. We aim to increase our utilization of alternative fuels and alternative raw materials consistently in order to make cement production more environmentally friendly, as well as less carbon intensitive. Energy management is a priority issue at Çimsa along with its Sustainability strategy. The Company has invested in low carbon technology over the last couple of years in an effort to improve its environmental sustainability performance, with the aim of achieving low energy consumption. The Company's 2020 environmental performance indicators found that efficiency was achieved in Scope 2 specific energies.

C4.5

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

C4.5a

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

Level of aggregation
Product

Description of product/Group of products
We produce a low carbon cement CAC (Calcium Aluminate Cement). It has lower emissions than Portland Cement. Its' carbon intensity is 6% lower than portland cement. As per Cimsa strategy to accelerate R&D the company aim to increase the production of CAC in the industry.

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

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions
Other, please specify (less GHG emissions due to less clinker amount)

% revenue from low carbon product(s) in the reporting year
3

% of total portfolio value
<Not Applicable>

Asset classes/ product types
<Not Applicable>

Comment
Çimsa is preparing for the low carbon future with its Climate Change Strategy, Alternative Fuel & Raw Materials Strategy, and Waste Policy set up within the concept of sustainability activities in 2019. Çimsa puts forth the sustainable product approach with the environmental products having less GHG emissions due to less clinker amount. On the other hand, our innovative products that have high isolation capability give rise to energy efficiency which generates low GHG emissions.

Level of aggregation
Product

Description of product/Group of products
We produce a low carbon cement FLUX. It has lower emissions than Portland Cement. As per Cimsa strategy to accelerate R&D the company aim to increase the production of CAC in the industry.

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

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions
Other, please specify (less GHG emissions due to less clinker amount)

% revenue from low carbon product(s) in the reporting year
1

% of total portfolio value
<Not Applicable>

Asset classes/ product types
<Not Applicable>

Comment
Çimsa is preparing for the low carbon future with its Climate Change Strategy, Alternative Fuel & Raw Materials Strategy, and Waste Policy set up within the concept of sustainability activities in 2019. Çimsa puts forth the sustainable product approach with the environmental products having less GHG emissions due to less clinker amount. On the other hand, our innovative products that have high isolation capability give rise to energy efficiency which generates low GHG emissions.

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	18
Pre-calciner	82

C5. Emissions methodology

C5.1

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

Scope 1

Base year start
January 1 2015

Base year end
December 31 2015

Base year emissions (metric tons CO2e)
4844326

Comment
We produce three types of (Grey, White, and CAC) cement. The given gross global Scope 1 emissions figure represents the emissions of all cement types.

Scope 2 (location-based)

Base year start
January 1 2015

Base year end
December 31 2015

Base year emissions (metric tons CO2e)
314923

Comment
We produce three types of (Grey, White, and CAC) cement. The given gross global Scope 1 emissions figure represents the emissions of all cement types and ready-mixed concrete .

Scope 2 (market-based)

Base year start
January 1 2015

Base year end
December 31 2015

Base year emissions (metric tons CO2e)
0

Comment
CIMSA consumes electricity from the interconnected grid.

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.
Defra Environmental Reporting Guidelines: Including streamlined energy and carbon reporting guidance, 2019
IPCC Guidelines for National Greenhouse Gas Inventories, 2006
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
WBCSD: The Cement CO2 and Energy Protocol

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)
5642232

Start date
<Not Applicable>

End date
<Not Applicable>

Comment
We produce three types of (Grey, White, and CAC) cement and ready-mixed concrete. The given gross global Scope 1 emissions figure represents the emissions of all cement types and ready-mixed concrete facilities.

C6.2

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

Row 1

Scope 2, location-based
We are reporting a Scope 2, location-based figure

Scope 2, market-based
We have no operations where we are able to access electricity supplier emission factors or residual emissions factors and are unable to report a Scope 2, market-based figure

Comment
We have no operations where we are able to access electricity supplier emissions factors or residual emissions factors and are unable to report a Scope 2, market-based figure.

C6.3

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

Reporting year

Scope 2, location-based
309829

Scope 2, market-based (if applicable)
<Not Applicable>

Start date
<Not Applicable>

End date
<Not Applicable>

Comment
We produce three types of (Grey, White, and CAC) cement. The given gross global Scope 2 emissions figure represents the emissions of all cement types and ready-mixed concrete facilities.

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
The administrative building facilities and head office

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)
No emissions from this source

Explain why this source is excluded
The administrative building of facilities and head office are not included since their emissions are negligible according to the CO2 emissions. The head office is located in the business center. Since there is no separate meter owned by ÇİMSA, consumption quantities are determined by allocation method and invoiced to ÇİMSA by the business center management. The emissions are not calculated since it is very low and estimated based on allocation.

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, not yet calculated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
We focused on establishing a data collection system for scope 3 emissions starting with the most relevant categories. This category is planned to be included in the near future.

Capital goods

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Based on World Business Council for Sustainable Development - Cement Sustainability Initiative - Scope 3 Guidance it is not relevant.

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

Evaluation status
Relevant, calculated

Metric tonnes CO2e
285042

Emissions calculation methodology
The average-data method, which involves estimating emissions by using secondary (e.g., industry average) emission factors for upstream emissions per unit of consumption (e.g., kg CO2e/kWh) is applied. The "DEFRA Greenhouse Gas Reporting: Conversion Factors 2021" is used.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
Fuel-and-energy-related activities include Well to tank (WTT) process emissions of consumed fuels and electricity. The energy consumption figures are based on invoices or measured parameters.

Upstream transportation and distribution

Evaluation status
Relevant, not yet calculated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
We focused on establishing a data collection system for scope 3 emissions starting with the most relevant categories. This category is planned to be included in the next year.

Waste generated in operations

Evaluation status
Relevant, calculated

Metric tonnes CO2e
374

Emissions calculation methodology
The waste-type-specific method is applied which involves using emission factors for specific waste types and waste treatment methods. The emissions are calculated based on the "DEFRA Greenhouse Gas Reporting: Conversion Factors 2021" tool.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain
Emissions from waste depend on the type of waste being disposed of, and the waste diversion method. Therefore, waste data based on its type (e.g., cardboard, food-waste, wastewater) and the waste treatment method (e.g., incinerated, landfilled, recycled) are necessary for calculation. We record all kinds of waste generated in our activities every year and upload the amount of waste according to their waste code to the online system in line with the local regulation. By this declaration, we calculate emissions inventory according to DEFRA GHG Conversion Factors.

Business travel

Evaluation status
Relevant, calculated

Metric tonnes CO2e
170

Emissions calculation methodology
The distance-based method, which involves determining the distance and mode of business trips, then applying the appropriate emission factor for the mode used is applied as per the Greenhouse Gas Protocol -Corporate Value Chain (Scope 3) Accounting and Reporting Standard. The distance-based method involves multiplying activity data (i.e., vehicle-kilometers or person-kilometers traveled by vehicle type) by emission factors (typically default national emission factors by vehicle type). Vehicle types include all categories of aircraft, rail, subway, bus, automobile, etc. The GHG Protocol has a calculation tool for transportation that uses a combination of the fuel-based and distance-based methods. This combination is used because CO2 is better estimated from fuel use, and CH4 and N2O are better estimated from distance traveled. The tool uses fuel-efficiency ratios to convert either type of activity data (fuel or distance) supplied by the user into either fuel or distance depending on the GHG being calculated. Therefore, “GHG emissions from transport or mobile sources” is used.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain
We gathered travel information from our travel management company which includes both domestic and international flights. The emissions arising from air travel have been calculated.

Employee commuting

Evaluation status
Relevant, calculated

Metric tonnes CO2e
1400

Emissions calculation methodology
The distance-based method, which involves collecting data from employees on commuting patterns (e.g., distance traveled and mode used for commuting) and applying appropriate emission factors for the modes used is applied as per the Greenhouse Gas Protocol -Corporate Value Chain (Scope 3) Accounting and Reporting Standard. Total distance traveled by employees over the reporting period (e.g., passenger-kilometers traveled) and mode of transport used for commuting (e.g., train, subway, bus, car, bicycle) data are necessary for calculation. The GHG Protocol has a calculation tool for transportation that uses a combination of the fuel-based and distance-based methods. This combination is used because CO2 is better estimated from fuel use, and CH4 and N2O are better estimated from distance traveled. The tool uses fuel-efficiency ratios to convert either type of activity data (fuel or distance) supplied by the user into either fuel or distance depending on the GHG being calculated. Therefore, “GHG emissions from transport or mobile sources” is used.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Please explain
Employee commuting is realized by scheduled buses and minibusses. Since employee number carried in each trip is assumed as equal to the full capacity of vehicles, this calculation may include a little overestimation. The distance data is obtained from the supplier service agreement.

Upstream leased assets

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Based on World Business Council for Sustainable Development - Cement Sustainability Initiative - Scope 3 Guidance it is not relevant.

Downstream transportation and distribution

Evaluation status
Relevant, not yet calculated

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
We focused on establishing a data collection system for scope 3 emissions starting with the most relevant categories. This category is planned to be included in the next year.

Processing of sold products

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Based on World Business Council for Sustainable Development - Cement Sustainability Initiative - Scope 3 Guidance it is not relevant.

Use of sold products

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Based on World Business Council for Sustainable Development - Cement Sustainability Initiative - Scope 3 Guidance it is not relevant.

End of life treatment of sold products

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Based on World Business Council for Sustainable Development - Cement Sustainability Initiative - Scope 3 Guidance it is not relevant.

Downstream leased assets

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Based on World Business Council for Sustainable Development - Cement Sustainability Initiative - Scope 3 Guidance it is not relevant.

Franchises

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Based on World Business Council for Sustainable Development - Cement Sustainability Initiative - Scope 3 Guidance it is not relevant.

Investments

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Based on World Business Council for Sustainable Development - Cement Sustainability Initiative - Scope 3 Guidance it is not relevant.

Other (upstream)

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Based on World Business Council for Sustainable Development - Cement Sustainability Initiative - Scope 3 Guidance it is not relevant.

Other (downstream)

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
Based on World Business Council for Sustainable Development - Cement Sustainability Initiative - Scope 3 Guidance it is not relevant.

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	8826	This emission includes the combustion of biomass-based alternative fuels such as sewage sludge and other biomass fuels.

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
0.286667

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
5952061

Metric denominator
unit total revenue

Metric denominator: Unit total
2076298962

Scope 2 figure used
Location-based

% change from previous year
1.69

Direction of change
Decreased

Reason for change
Total emissions released in 2020 is increased by 18% compared to the previous year. The total turnover of 2020 was increased by 20%. As a result of this, the intensity was decreased by 1.69% compared to the previous year.

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	0.855	0.835	0.044
Cement equivalent	0.756	0.739	0.039
Cementitious products	0.776	0.759	0.04
Low-CO2 materials	0	0	0

C7. Emissions breakdowns

C7.1

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

C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	5634247	IPCC Fifth Assessment Report (AR5 – 100 year)
CH4	2700	IPCC Fifth Assessment Report (AR5 – 100 year)
N2O	5285	IPCC Fifth Assessment Report (AR5 – 100 year)

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)
Turkey	5642232

C7.3

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

By business division
By facility

C7.3a

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

Business division	Scope 1 emissions (metric ton CO2e)
Grey Cement	4237076
White Cement	1374774
Calcium Aluminate Cement (CAC)	30382

C7.3b

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

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
Mersin Cement Plant - Grey Cement	1137112	36.8	34.633333
Eskişehir Cement Plant - Grey Cement	705037	39.78	30.520556
Kayseri Cement Plant - Grey Cement	564816	38.75	35.549791
Niğde Cement Plant - Grey Cement	627216	37.95	34.686367
Afyon Cement Plant - Grey Cement	1202895	38.66	30.615968
Mersin Cement Plant - White Cement	1148028	36.8	34.633333
Eskişehir Cement Plant - White Cement	226746	39.78	30.520556
Mersin Cement Plant - CAC	30382	36.8	34.633333
Ankara Clinker Grinding Plant	0	39.97	33.11712

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	5642232	5544581	This figure includes grey, white, and CAC cement production activities.
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Electric utility activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (midstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

C7.5

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

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
Turkey	309829	0	656420	0

C7.6

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

By business division

By facility

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)
Grey Cement	218356	0
White Cement	88111	0
Calcium Aluminate Cement (CAC)	2300	0
Ready Mixed Concrete	1062	0

C7.6b

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

Facility	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Mersin Cement Plant - Grey Cement	56413	0
Eskişehir Cement Plant - Grey Cement	45133	0
Kayseri Cement Plant - Grey Cement	31646	0
Niğde Cement Plant - Grey Cement	31058	0
Afyon Cement Plant - Grey Cement	53827	0
Mersin Cement Plant - White Cement	70974	0
Eskişehir Cement Plant - White Cement	17137	0
Mersin Cement Plant - CAC	2300	0
Ankara Clinker Grinding Plant	279	0
Ready mixed concrete	1062	0

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	308767	0	This figure includes grey, white and CAC cement production activities.
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (midstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

C7.9

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

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		<Not Applicable>		
Other emissions reduction activities	86982	Decreased	1.7	Consumption of alternative fuels, which primarily have high calorific values, also plays a role in the waste management process of other industries, as well as minimizing the environmental impacts from waste. Thus, the energy recovery method in the waste management hierarchy is used for alternative fuels which cannot be recycled. All five of Çimsa's integrated plants hold a "Waste Incineration License" within the scope of Çimsa's targets to increase the use of alternative fuels and reduce greenhouse gas emissions. Çimsa's grey cement production co-incineration rate, which stood at 7.5% in 2019, increased to 7.82% in 2020. It is aimed to achieve an alternative fuel rate of approximately 13.8% by 2021. We reduced our specific gross CO2 emissions to 855 tCO2/ton clinker which was 885 at the previous year. Through these activities, we reduced our emissions by 86,982 tons CO2e, and our total emissions (Scope 1 and Scope 2) in the previous year were 5,033,633 tons CO2e. Therefore there is a 1.75% decrease in emissions.
Divestment		<Not Applicable>		
Acquisitions		<Not Applicable>		
Mergers		<Not Applicable>		
Change in output	1005411	Increased	20	Our total emissions have increased by 18.2% compared to the previous year. The clinker production has increased by 21% compared to the previous year. As a result of more production, total emissions increased by 20%. Due to more clinker production, 1,005,411 tCO2 is emitted. Our total emissions (Scope 1 and Scope 2) in the previous year were 5,033,633 tons CO2e. Therefore there is a 20% increase in emissions. (1,005,411 / 5,033,633) * 100 = 20%
Change in methodology		<Not Applicable>		
Change in boundary		<Not Applicable>		
Change in physical operating conditions		<Not Applicable>		
Unidentified		<Not Applicable>		
Other		<Not Applicable>		

C7.9b

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

Location-based

C8. Energy

C8.1

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

More than 80% but less than or equal to 85%

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)	0	6340386	6340386
Consumption of purchased or acquired electricity	<Not Applicable>	0	656420	656420
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	43259	<Not Applicable>	43259
Total energy consumption	<Not Applicable>	43259	6996806	7040065

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)	6340386
Consumption of purchased or acquired electricity	<Not Applicable>	654170
Consumption of other purchased or acquired energy (heat, steam and/or cooling)	<Not Applicable>	<Not Applicable>
Total energy consumption	<Not Applicable>	6994556

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	No
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

C8.2c

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

Fuels (excluding feedstocks)
Anthracite Coal

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
397393

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
<Not Applicable>

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

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

Emission factor
96

Unit
metric tons CO2e per GJ

Emissions factor source
The emissions are calculated through the "WBCSD Cement Sustainability Initiative Cement CO2 and Energy Protocol, Version 3.1, CO2 Emissions and Energy Inventory" is applied which is mainly based on IPCC 2006 Guidelines emission factors.

Comment

Fuels (excluding feedstocks)
Petroleum Coke

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
5275726

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
<Not Applicable>

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

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

Emission factor
92.8

Unit
metric tons CO2 per GJ

Emissions factor source
The emissions are calculated through the "WBCSD Cement Sustainability Initiative Cement CO2 and Energy Protocol, Version 3.1, CO2 Emissions and Energy Inventory" is applied which is mainly based on IPCC 2006 Guidelines emission factors.

Comment

Fuels (excluding feedstocks)
Residual Fuel Oil

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
37402

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
<Not Applicable>

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

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

Emission factor
77.4

Unit
metric tons CO2 per GJ

Emissions factor source
The emissions are calculated through the "WBCSD Cement Sustainability Initiative Cement CO2 and Energy Protocol, Version 3.1, CO2 Emissions and Energy Inventory" is applied which is mainly based on IPCC 2006 Guidelines emission factors.

Comment

Fuels (excluding feedstocks)
Diesel

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
1315

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
<Not Applicable>

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

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

Emission factor
74.1

Unit
metric tons CO2 per GJ

Emissions factor source
The emissions are calculated through the "WBCSD Cement Sustainability Initiative Cement CO2 and Energy Protocol, Version 3.1, CO2 Emissions and Energy Inventory" is applied which is mainly based on IPCC 2006 Guidelines emission factors.

Comment

Fuels (excluding feedstocks)
Natural Gas

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
23797

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
<Not Applicable>

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

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

Emission factor
56.1

Unit
metric tons CO2 per GJ

Emissions factor source
The emissions are calculated through the "WBCSD Cement Sustainability Initiative Cement CO2 and Energy Protocol, Version 3.1, CO2 Emissions and Energy Inventory" is applied which is mainly based on IPCC 2006 Guidelines emission factors.

Comment

Fuels (excluding feedstocks)
Lignite Coal

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
265916

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
<Not Applicable>

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

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

Emission factor
101

Unit
metric tons CO2 per GJ

Emissions factor source
The emissions are calculated through the "WBCSD Cement Sustainability Initiative Cement CO2 and Energy Protocol, Version 3.1, CO2 Emissions and Energy Inventory" is applied which is mainly based on IPCC 2006 Guidelines emission factors.

Comment

Fuels (excluding feedstocks)
Waste Oils

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
2419

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
<Not Applicable>

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

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

Emission factor
74

Unit
metric tons CO2 per GJ

Emissions factor source
The emissions are calculated through the "WBCSD Cement Sustainability Initiative Cement CO2 and Energy Protocol, Version 3.1, CO2 Emissions and Energy Inventory" is applied which is mainly based on IPCC 2006 Guidelines emission factors.

Comment

Fuels (excluding feedstocks)
Other, please specify (RDF including plastics)

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
530

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
<Not Applicable>

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

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

Emission factor
75

Unit
metric tons CO2 per GJ

Emissions factor source
The emissions are calculated through the "WBCSD Cement Sustainability Initiative Cement CO2 and Energy Protocol, Version 3.1, CO2 Emissions and Energy Inventory" is applied which is mainly based on IPCC 2006 Guidelines emission factors.

Comment

Fuels (excluding feedstocks)
Industrial Wastes

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
236726

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
<Not Applicable>

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

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

Emission factor
83

Unit
metric tons CO2 per GJ

Emissions factor source
The emissions are calculated through the "WBCSD Cement Sustainability Initiative Cement CO2 and Energy Protocol, Version 3.1, CO2 Emissions and Energy Inventory" is applied which is mainly based on IPCC 2006 Guidelines emission factors.

Comment

Fuels (excluding feedstocks)
Other, please specify (Other Fossil)

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
76825

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
<Not Applicable>

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

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

Emission factor
80

Unit
metric tons CO2 per GJ

Emissions factor source
The emissions are calculated through the "WBCSD Cement Sustainability Initiative Cement CO2 and Energy Protocol, Version 3.1, CO2 Emissions and Energy Inventory" is applied which is mainly based on IPCC 2006 Guidelines emission factors.

Comment

Fuels (excluding feedstocks)
Dried Sewage Sludge

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
6608

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
<Not Applicable>

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

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

Emission factor
110

Unit
metric tons CO2 per GJ

Emissions factor source
The emissions are calculated through the "WBCSD Cement Sustainability Initiative Cement CO2 and Energy Protocol, Version 3.1, CO2 Emissions and Energy Inventory" is applied which is mainly based on IPCC 2006 Guidelines emission factors.

Comment

Fuels (excluding feedstocks)
Biomass Municipal Waste

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
15728

MWh fuel consumed for self-generation of electricity
<Not Applicable>

MWh fuel consumed for self-generation of heat
<Not Applicable>

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
<Not Applicable>

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

Emission factor
110

Unit
metric tons CO2 per GJ

Emissions factor source
The emissions are calculated through the "WBCSD Cement Sustainability Initiative Cement CO2 and Energy Protocol, Version 3.1, CO2 Emissions and Energy Inventory" is applied which is mainly based on IPCC 2006 Guidelines emission factors.

Comment

C-CE8.2c

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

Fuels (excluding feedstocks)
Anthracite Coal

Heating value
LHV

Total MWh fuel consumed for cement production activities
397393

MWh fuel consumed at the kiln
397393

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
<Not Applicable>

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

Fuels (excluding feedstocks)
Petroleum Coke

Heating value
LHV

Total MWh fuel consumed for cement production activities
5275726

MWh fuel consumed at the kiln
5275726

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
<Not Applicable>

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

Fuels (excluding feedstocks)
Residual Fuel Oil

Heating value

LHV

Total MWh fuel consumed for cement production activities
37402

MWh fuel consumed at the kiln
37402

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
<Not Applicable>

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

Fuels (excluding feedstocks)
Natural Gas

Heating value
LHV

Total MWh fuel consumed for cement production activities
23797

MWh fuel consumed at the kiln
18610

MWh fuel consumed for the generation of heat that is not used in the kiln
5187

MWh fuel consumed for the self-generation of electricity
<Not Applicable>

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

Fuels (excluding feedstocks)
Lignite Coal

Heating value
LHV

Total MWh fuel consumed for cement production activities
265916

MWh fuel consumed at the kiln
265916

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
<Not Applicable>

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

Fuels (excluding feedstocks)
Waste Oils

Heating value
LHV

Total MWh fuel consumed for cement production activities
2419

MWh fuel consumed at the kiln
2419

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
<Not Applicable>

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

Fuels (excluding feedstocks)
Other, please specify (RDF including plastics)

Heating value
LHV

Total MWh fuel consumed for cement production activities
530

MWh fuel consumed at the kiln
530

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
<Not Applicable>

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

Fuels (excluding feedstocks)
Industrial Wastes

Heating value
LHV

Total MWh fuel consumed for cement production activities
236726

MWh fuel consumed at the kiln
236726

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
<Not Applicable>

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

Fuels (excluding feedstocks)
Other, please specify (Other Fossil)

Heating value
LHV

Total MWh fuel consumed for cement production activities
76825

MWh fuel consumed at the kiln
76825

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
<Not Applicable>

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

Fuels (excluding feedstocks)
Dried Sewage Sludge

Heating value
LHV

Total MWh fuel consumed for cement production activities
6608

MWh fuel consumed at the kiln
6608

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
<Not Applicable>

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

Fuels (excluding feedstocks)
Biomass Municipal Waste

Heating value
LHV

Total MWh fuel consumed for cement production activities
15728

MWh fuel consumed at the kiln
15728

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
<Not Applicable>

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

C8.2d

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

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	43259	43259	43259	43259
Heat	6340386	6340386	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	43529	43529
Heat	6316588	6316588
Steam	0	0

C9. Additional metrics

C9.1

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

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

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

	Investment in low-carbon R&D	Comment
Row 1	Yes	Çimsa is moving towards a low carbon future with its Climate Change Strategy, Alternative Fuel & Raw Materials Strategy, and Waste Policy set up within the concept of sustainability activities in the reporting year. Çimsa puts forth the sustainable product approach with the environmental products having less GHG emissions due to less clinker amount. On the other hand, our innovative products that have high isolation capability give rise to energy efficiency which generates low GHG emissions.

C-CE9.6a

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

Technology area	Stage of development in the reporting year	Average % of total R&D investment over the last 3 years	R&D investment figure in the reporting year (optional)	Comment
Alternative low-CO2 cements/binders	Full/commercial-scale demonstration	21 - 40%	1262159	We produce a low carbon cement CAC (Calcium Aluminate Cement), CSA, and FLUX which have lower emissions than Portland Cement. As per Cimsa strategy to accelerate R&D the company aim to increase the production of low carbon cement product in the industry. In September 2019, work started on the HyperCog project, a part of the Horizon 2020 EU scheme, which will be adopted under the title of developing performance-enhancing digitalization technologies in production technologies and will last for 42 months. The project is planned to optimize the use of natural resources and to reduce environmental impacts, in addition to the digitalization of white cement production line and improvements in efficiency and product quality. Simultaneously, within the framework of the works to be conducted, a big step will be taken in the direction of industry 4.0 with the conversion to a smart factory. Other application headings made within the scope of Horizon 2020 are given below: - Creation of circular economy solutions by using the building materials, which completed their economic life, in the cement production, - Reducing CO2 emissions by producing chemicals with economic value and industrial usage from flue gas by using photo-catalytic methods, - Providing industrial heating and cooling by using a new generation solar energy system as part of the efforts to use renewable energy.

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	No third-party verification or assurance

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
EY_ÇİMSA_Assurance Statement for 2020 Integrated Report_ENG.pdf

Page/ section reference
1 full-page

Relevant standard
ISAE 3410

Proportion of reported emissions verified (%)
100

C10.1b

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

Scope 2 approach
Scope 2 location-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
EY_ÇİMSA_Assurance Statement for 2020 Integrated Report_ENG.pdf

Page/ section reference
1 full-page

Relevant standard
ISAE 3410

Proportion of reported emissions verified (%)
100

C10.2

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

C10.2a

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

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C4. Targets and performance	Year on year emissions intensity figure	ISAE 3000, ISAE 3410	The following indicators have been verified by E&Y: - Amount of Scope 1 Total Gross Greenhouse Gas Emissions (million tons CO2/year) - Scope 1 Cementitious Specific CO2 Emissions (kg CO2/tons) - Amount of Scope 2 Greenhouse Gas Emissions (million tons CO2/year) - Scope 2 Cementitious Specific CO2 Emissions (kg CO2/tons) EY_ÇİMSA_Assurance Statement for 2020 Integrated Report_ENG.pdf

C11. Carbon pricing

C11.1

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

No, but we anticipate being regulated in the next three years

C11.1d

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

In Turkey, reediness to emission trading schemes is studied by the World Bank, and the project started in 2014. Cimsa reports its stationary combustion emissions since 2015. The second phase of the project will be finalized and expected outcomes are draft climate law and ETS Regulation. To start on the 3rd phase will be parliament decision and if it is approved then we expect to have a carbon tax or an ETS mechanism. Besides the expected national mechanism, the EU published Green Deal Adjustment. For European exporters, if the tax for the product is not paid in the produced country than a climate tax will be paid to the EU. This has been accelerated the PMR Project because if the local ETS system starts to work in Turkey we may not oblige to Green Deal Adjustment.

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
Change internal behavior
Identify and seize low-carbon opportunities

GHG Scope
Scope 1

Application
Stationary combustion and process emissions are reporting to the ministry so we put carbon price for scope 1 emissions. To be ready for the carbon tax we put 8 TL(about 1 Euro) for tonnes of carbon. Its internally followed by Environment and Sustainability Executive and reported to the Sustainability Committee.

Actual price(s) used (Currency /metric ton)
8

Variance of price(s) used
Uniform pricing is used since all production plants were in Turkey in 2020 and carbon pricing is applied only for scope 1 emissions. We used 1 Euro which is around 3% of the price expected based on ETS simulation projected by World Bank.

Type of internal carbon price
Shadow price

Impact & implication
The carbon pricing application created a synergy with our emission reduction targets on scope 1 and the effect of possible regulatory change clearly presented to all company.

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?
Yes, our suppliers
Yes, our customers
Yes, other partners in the value chain

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
40

% total procurement spend (direct and indirect)

% of supplier-related Scope 3 emissions as reported in C6.5
80

Rationale for the coverage of your engagement
The life cycle approach starts with supplier engagement for Cimsa. ISO 14001 Environmental Management System applied in Cimsa since 2008 which creates maturity an environmental point of view. Third-party and internal audits cover our stakeholder engagement especially the supply chain. Supplier contracts items are reviewed in terms of environmental requirements and all feedback's are evaluated for improvement of the system. Cimsa defined its value chain and focused on emissions that can be controlled based on Global Cement and Concrete Association's "GCCA Sustainability Guidelines for the monitoring and reporting of CO2 emissions from cement manufacturing". All Supplier contracts cover GCCA supply chain 10 principles which are related to Human Rights, Labour, Environment, Anti-Corruption. The first chain that can be impacted is defined as transportation from suppliers. "Being In 3 Continents" strategy of the company has been evaluated in terms of emission reduction in the supply chain and expected emission reductions have been calculated with the new production sites and suppliers. In 2017 Cimsa invested to build a new cement factory in the USA and in 2019 a contract has been signed to buy a cement factory in Spain. Besides getting data and providing emission reductions within the supply chain, Cimsa focus to share its climate change and sustainability know-how including its priorities which are; • Occupational Health and Safety, • Growing in International Markets • Profitability and Dividends • Equality at Work • Customer Loyalty • Risk Management • Digitalization • Cultural and Technological Transformation. Through surveys, online and offline meetings information are sharing to grow a strong and focused supply chain.

Impact of engagement, including measures of success
The engagement with our suppliers provides to work with a similar vision of companies and creates a strong and sustainable supply chain. At the know-how sharing level, the first objective was creating the same understanding of climate change and sustainability with our supply chain. Our critical suppliers in terms of climate change and sustainability are working in ready-mix concrete and aggregates. They are started to collect the data for emission calculation and in the next years, they will be obliged to present their emissions to be Cimsa suppliers. The impact of supplier engagement for transportation results in the calculation of scope 3 emissions with higher confidence levels and with TCFD point of view parameters except financial data's started to monitor. This engagement caused us to monitor the suppliers more closely on their costs.

Comment

C12.1b

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

Type of engagement
Education/information sharing

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

% of customers by number
50

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

Portfolio coverage (total or outstanding)
<Not Applicable>

Please explain the rationale for selecting this group of customers and scope of engagement
At Cimsa we invest to develop low carbon products and education of our customers for the transition to a low carbon economy. This is supported by our strategy because are focused on sustainability and being human-oriented. In our scenario analysis, we also studied stakeholder expectations including changing customer behaviour. Cimsa is aware of transmission to a low carbon economy and an increase of sales in low carbon products like FLUX, HyperCog and CSA will decrease the risk level that might occur due to regulatory changes. To get the expectations of our stakeholders we organize a stakeholder meeting and once a year, we meet with our customers to get their needs and expectations. Our R&D department joins international conferences and projects about low carbon products to meet customer requests. We have EPD certified products and with the marketing of those products, we create awareness about climate change and environmental impacts. As reported in the opportunities section of this report 0,001 of our revenue comes from EPD certified products and we believe the increase of this in the further years.

Impact of engagement, including measures of success
With customer engagement, we expect an increased demand for EPD certified and low carbon products. Targets to increase sales of EPD certified and low carbon products have been set. Those products are preferred because they help earning points on LEED Green Building Certification. Ecovadis is another program that evaluates the sustainability performance of suppliers and some of the clients evaluate our sustainability performance through EcoVadis including climate-related data. We develop our marketing strategy, R&D Strategy, and Climate Change Strategy on low carbon transition and also evaluate the expectations through scenario analysis for further years. Our biggest production site and customer volume are in Turkey and the level of climate change awareness is still developing. When we focus on the financial positive impacts of our low carbon products they are becoming preferred products. With the strong R&D department, we both focus on customer expectations and environmental needs. We believe that it's the responsibility of becoming one of the global players in the cement sector.

C12.1d

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

Engagement with Ministries;

Cimsa has lobbying activities to open incentive mechanisms for processed biomass waste. In terms of creating incentives we meet and share data with the Ministry of Environment and Ministry of Industry. With the incentive mechanisms, municipalities can build a Mechanical-Biological-Treatment facility with a biological dryer instead of regular storage, and the cement sector can both use these biomass fuels and reduce their emissions. With the driving force of zero waste regulation in place and the EU Green Deal Regulation that may come into force for the products sold to EU countries, search on biological treatment solutions has been accelerated.
The main focus is to minimize the GHG's through energy efficiency, alternative fuel usage, increasing additives in the cement. This will provide fewer emissions in all sectors not only for Cimsa and Cimsa is one of the leaders who work to create a solution for emission reductions in the cement sector in Turkey.

Engagement with Universities;
- Çimsa has entered a collaboration with Mersin University in order to measure the level of digital maturity. Çimsa provided its support as a field of execution for the thesis study which specifies the digital maturity level of the Turkish cement industry in 37 different parameters. These studies allowed the measurement of Çimsa's maturity level. Furthermore, the study exhibited development areas in different parameters, shedding light on the goals of digitalization.
- Within the scope of the "Industry PhD Program" conducted by TÜBİTAK in order to encourage the employment of researchers holding a PhD in the industry, the joint project application from Çimsa and Sabancı Holding was qualified to be supported. Within the context of the project, Sabancı University faculty members and 3 PHD students will develop cement with reduced environmental impacts, and PHD students will be provided with scholarships.
- 3D printing technology was aimed to develop by using Super White's fast setting and durability features for innovative solutions in digital design. The project, which was carried out with Özyeğin and Çukurova Universities, completed by printing different objects.

Engagement for R&D;
- Within the scope of HORIZON 2020, which was set up by the EU to support scientific and applied research, development and innovation projects, Çimsa received EUR 980,000 in total support with its three R&D projects. Çimsa was ranked in the top 10 in the list of the most successful Turkish Industrial Enterprises published by TÜBİTAK.
- In Mersin facility, we have a partnership with a waste handling company to produce RDF,
- Carbon Capture and Storage technology development studies by the R&D Department,
- Attendance at International Conferences and fairs to follow the developments about low carbon products.
- The EU-supported digitalization project, HyperCog, one of Çimsa's priority issues, completed its first year. The Company remotely participated in the project review meeting. Within the scope of the project, it is planned to increase efficiency and product quality by digitizing the white cement production line, as well as to optimize the use of natural resources and reduce environmental impact. At the same time, a big step towards Industry 4.0 will be taken with the transformation into a smart factory. The
- Iceberg project, an EU project, whose application was submitted in September 2019, qualified for support. Studies for the project, which started in May, continue. Within the scope of the project, Çimsa will be responsible for the development and optimization of environmentally friendly cement and concrete-based building products. The project will involve cooperation for the development of ultra light non-structural wall elements and green wood chipping concrete panels by developing new ecohybrid cement with materials from the building demolition wastes. The project will last 48 months and 100% of the budget is supported..
- FORGE has been one of the eight projects of the 11 Turkish organizations supported by the EU Commission within the scope of "nanotechnology, advanced materials, biotechnology, advanced manufacturing and processing technologies" under the Industrial Leadership and Competitiveness component of TÜBİTAK's Horizon 2020 Program. The project started in November 2020.

C12.3

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

Direct engagement with policy makers

Trade associations

Other

C12.3a

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

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Mandatory carbon reporting	Support	The mandatory carbon reporting regulation in Turkey came into force in May 2014. 2020 GHG reports of our cement plants have been prepared, then verified and submitted to Ministry of Environment and Urbanisation. Our GHG reports have been evaluated for compliance.	We supported the Mandatory Carbon Reporting legislation and took the necessary precautions and actions for full compliance. We are putting effort to determine the most accurate and efficient GHG Monitoring Methodology. For this purpose; we are working together with the World Business Council of Sustainable Development - GCCA as a member. WBCSD GCCA is one of the world's pioneering organizations on sustainability in the cement industry. Therefore we evaluate all the methodologies relevant to GHG Monitoring available for the best fit. We finalized our preparations for GHG reporting and are ready. We are open and willing to share our accumulated experiences as well as by giving our comments to legal authorities to access the most accurate and efficient reporting system. In addition to that, we are working together with the Turkish Cement Manufacturers Association (TCMA) on this purpose.
Other, please specify (Climate change adaptation)	Support with minor exceptions	We express our opinion through the Turkish Industry and Business Association (TUSİAD) and the Turkish Cement Manufacturers Association (TCMA) about climate change. Our R&D Department is in the climate change adaptation working group of TUSIAD. The mandatory carbon reporting regulation in Turkey came into force 17th of May 2014. We engage with policymakers to improve the implementation of the law. An example is given in the proposed solution part.	As ÇİMSA; we support the Climate Change Adaptation and Mandatory Carbon Reporting legislation with a minor exception. As an example for the improvement of the law; we propose that GHG calculations be made into account the biomass content of Alternative fuels and calculations should be made separately for each grey clinker and white clinker. We are attending PMR meetings regarding Emission Trading System and Carbon Tax as well as Carbon Leakage. We give our opinions and comments on these issues.
Other, please specify (Reducing the use of fossil fuels)	Support	The cement industry is an energy-intensive industry and we aim to reduce fossil fuel usage. Therefore we are willing to use Refuse Derived Fuel (RDF) as much as possible as an alternative fuel to fossil fuels which has a lower emission factor and biomass content. On the behalf of Turkish Cement Manufacturers Association, we negotiated with the Ministry of Environment and Urbanisation to remove the calorific basis limit which is 40% as in European Waste Legislation. The Ministry accepted our proposal and this limit has been removed. This could increase the RDF usage in ÇİMSA and Turkey.	Together with the Turkish Cement Manufacturers Association (TCMA), as in EU laws, our proposition has been accepted to abrogate the 40% restriction in terms of calorific value for the non-hazardous waste usage. This would allow more use of RDF and less GHG emissions.
Other, please specify (Reducing the use of fossil fuels)	Support	The cement industry is an energy-intensive industry and we aim to reduce fossil fuel usage. Therefore we are willing to use Refuse Derived Fuel (RDF) as much as possible as an alternative fuel to fossil fuels which has a lower emission factor and high biomass content. In the current situation; the use of municipal dried sewage treatment sludge and SRF (Solid Recovery Fuel) produced from the municipal solid wastes by means of Mechanical Biological Treatment Systems is not common in Turkey. We are discussing establishing a feasible system to use these wastes as alternative fuels with the Ministry of Environment and Urbanisation.	As Çimsa, we are discussing with the Ministry of Environment and Urbanisation about municipal dried sewage treatment sludge and SRF (Solid Recovery Fuel) produced from municipal solid wastes. We are aiming to make long-term agreements with the Municipalities. Because the sewage sludge is carbon neutral (% 100 biomass) alternative fuel and the biomass contents in SRF especially varies from 17% to 55% to decrease CO2 emissions.

C12.3b

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

Yes

C12.3c

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

Trade association

Turkish Cement Manufacturers Association (TCMA)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

TCMA is a strong and an active association of cement manufacturing companies in Turkey. Beyond business wise topics it also started to guide and raise the awareness of its members on Sustainable Business. It tries to develop action plans for cement manufacturers.

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

The Vice-Chairman of the Board and Chairman of the Sustainability Sub-Committee are members of our Board, the Industry Group Head of Sabancı Holding and CEO of ÇİMSA. Therefore, we take an active role in pioneering the cement industry on sustainability in Turkey. Çimsa's Environment and Sustainability Executive is a member of the Environment and Climate Change Committee of TCMA. She shares his accumulated experience and fosters the use of alternative raw materials and alternative fuels which is important for reducing CO2 emissions at the cement industry.

Trade association

Business and Sustainable Development Association

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Business and Sustainable Development Association is a part of the global organization, the World Business Council for Sustainable Development (WBCSD). It performs to

foster sustainable development and raise awareness. It tries to develop action plans for switching to Sustainable Business.

How have you influenced, or are you attempting to influence their position?
Çimsa is a member of the Business and Sustainable Development Association and actively engage. Involve all the meetings and shares its opinions for decision making/action taking processes. Also provides feedbacks and vision on behalf of the cement industry for further plans.

Trade association
Global Cement and Concrete Association

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association's position
Core members of the Global Cement and Concrete Association. (GCCA) include cement companies who are also members of the World Business Council for Sustainable Development (WBCSD). They manage and maintain the GCCA Charter (which identifies company commitments and responsibilities), define and fund its work program, and invite new members. Reducing GHG emissions from cement production is a key focus of GCCA's work. We are in Cement Innovation, Cement Best Practice, and Reporting working groups.

How have you influenced, or are you attempting to influence their position?
We engage with GCCA and search for solutions to mitigate and adapt to our Climate Change effects. We also discuss legislation and also gather opinions from pioneering and peer companies all around the World. The event focused on how, through sharing knowledge and experience, the private sector can capture and build on the opportunities offered by the Sustainable Development Goals (SDGs) and understand the risks of inaction.

Trade association
Sabancı Holding

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association's position
Çimsa is a group company of Sabancı Holding and there is an Environment Committee established by the members from all Sabancı Group companies.

How have you influenced, or are you attempting to influence their position?
Environment and Sustainability Executive is also a member and reflects its own and industries opinions. Common solutions are searched for environmental issues and legislation.

Trade association
Association of Turkish Consruction Material Producers (IMSAD)

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association's position
IMSAD is a non-governmental organization representing the construction industry domestically and abroad. IMSAD sustainability committee focuses on the environment, energy management, energy efficiency to develop climate change adaptation policies. Besides; it aims the coordination within the construction industry and performs to take the necessary actions on these issues in the name of industry. It works to raise awareness by informing its members. Çimsa is a member of the Sustainability Committee which conducts the above-mentioned duties precisely.

How have you influenced, or are you attempting to influence their position?
Environment and Sustainability Executive is also a member and shares its own improvement works in sustainability meetings, contributes the IMSAD sustainability report, follows all construction industry working about sustainability issues for the sustainability world.

Trade association
TUSIAD

Is your position on climate change consistent with theirs?
Consistent

Please explain the trade association's position
TUSIAD (Turkish Industry and Business Association) is the main association of the Turkish Business Society. Therefore it is the main channel of communication between the Turkish Business and Industrial Sector and the Turkish Government.

How have you influenced, or are you attempting to influence their position?
Environment and Sustainability Executive is actively involving TUSİAD's Environment and Climate Change Committee. TUSİAD prepared its Position Paper on the Material Issues of Fighting Against Climate Change. ÇİMSA is willing to convey its accumulated experience on the transformation of the cement industry for the Low Carbon Economy in Turkey.

C12.3e

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

Turkish Business World and Sustainable Development Association (SKD) is a non-governmental organization established in 2004 and it represents the World Business Council for Sustainable Development in Turkey. Çimsa is a member of SKD (Business World and Sustainable Development Association) and involving in Sustainability Committee. Çimsa is planning to get engaged to access to the Turkey Materials Marketplace platform which is a cloud-based platform designed to facilitate cross-industry materials reuse among Turkish companies & communities
This is new and innovative business opportunities to reduce waste-to-landfill and carbon footprint, collaborate with like-minded peers, and implement real strategies within a new circular economy.

C12.3f

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

Our company strategy is to track the environmental legislation of climate change continuously and attend platforms such as Climate Change Committees of Ministry of Environment and Urbanization, TCMA (Turkish Cement Manufacturers Association), and Association of Turkish Construction Material Producers (IMSAD).

We take an active role especially in associations on sustainability, climate change, and environmental pillars.
We develop common solutions about climate change and environmental issues, share studies, learnings, and enhancements in production processes; share targets about climate change inline with all companies related to the Sabancı Holding.

Turkish Cement Manufacturers Association, in the cement industry, efforts are driven to decrease GHG emissions. The most important pillars are; reduction of kiln heat consumption, reduction of electricity consumption, increase of alternative fuels by reducing the use of fossil fuels, and increase of cement additives.

Also, Çimsa becomes the first and only Turkish company joining the *Global Cement and Concrete Association.* (GCCA). As sustainability committee members, we take part in the task forces of GCCA since 2013.

C12.4

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

Publication
In mainstream reports, incorporating the TCFD recommendations

Status
Complete

Attach the document
Integrated Report_EN_2020.pdf

Page/Section reference
All details are given in the integrated report about our climate change strategy and actions. But the most relevant pages of the report are as follows; Governance; page 22-24 Strategy; page 23 Risk & opprtunities; page 50 Emissions figures; page 247-250 Emission targets; page 28 Other metrics; 244-254

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

Comment

C15. Signoff

C-FI

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

C15.1

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

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

Submit your response

In which language are you submitting your response?
English

Please confirm how your response should be handled by CDP

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

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