

C0. Introduction

C0.1

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

Cementir Holding is a multinational Group with registered offices in the Netherlands and operating in the building materials sector. With operations in 18 countries, production capacity of over 13 million tons between white and grey cement, Cementir sells around 10 million tons of aggregates every year, 5 million cubic meters of ready-mix concrete and it represents a reference point both in the construction and maintenance of infrastructures as well as in residential and commercial construction.

Cementir is world leaders in white cement, the only producer of cement in Denmark and of concrete in the Scandinavian area, the third largest player in Belgium and among the main international grey cement operators in Turkey. We operate in Belgium one of the largest aggregate quarries in Europe, with 10 million tons extracted each year. In Turkey and the United Kingdom, we are active in the treatment of urban and industrial waste that we use to produce waste-derived fuel for our cement plants.

Cementir is committed to developing a business model in line with the sustainability strategic goals and the CO2 emission reduction targets judged by the Science Based Targets initiative (SBTi) to be consistent with a 1.5°C world.

As a first step, in 2020, Cementir defined a roadmap up to 2030 to reduce its Scope 1 and 2 emissions by 25% compared to 2020. This commitment, that did not include any breakthrough technology, was validated by SBTi and judged to be consistent with the "well below 2°C" objective.

In 2022, following the formalization of the guidelines for the cement sector by SBTi, Cementir updated its transition plan and set 1.5°C-aligned science-based GHG emission reduction targets for the production of cement.

Concerning the near-term (2030), Cementir is currently commits to reduce:

- Scope 1 and Scope 2 GHG emissions 29.33% per ton of cement by 2030 from a 2021 base year;
- Scope 3 GHG emissions from purchased goods and services 23.00% per ton of purchased clinker and cement by 2030 from a 2021 base year;

Concerning the long-term (2050), Cementir is currently commits to reduce:

- Scope 1 & 2 emissions 96.1% per ton of cement by 2050 from a 2021 base year;
- absolute Scope 3 emissions 90% by 2050 from a 2021 base year

As of July 2023, the targets (near-term and long-term) have been submitted to SBTi. Cementir is waiting for the validation review of SBTi.

To drive the transition of the Group to a low carbon economy, the 2023-25 Industrial Plan, approved by the Board of Directors in February 2023, targets a 86 million euro investments in sustainability, which will include, among others: the revamping of the kiln at our Belgian plant in order to increase alternative fuels use from the current 40% to over 70%; the switch to natural gas in Aalborg; the ramping up of facilities at the Aalborg plant to produce FUTURECEM®.

In 2022 we further formalized our engagement towards sustainability by signing both the UN Global Compact and the WASH Pledge. The Group is to working every day to develop a more responsible business, respectful of human and labour rights, promoting environmental protection and anti-corruption initiatives. But also, on providing access to safe water, sanitation and hygiene (WASH) at the workplace within our operations and supporting partners across our value chain and communities that surround our workplaces.

Concerning water, the Group has defined a 10-year roadmap that will allow for the reduction of water consumption per ton of cement produced by 20% compared to 2019. For those plants located in high water-stress areas, where the specific water consumption is already lower than the Group average, the reduction target is 25%.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data and indicate whether you will be providing emissions data for past reporting years.

Reporting year

Start date

January 1 2022

End date

December 31 2022

Indicate if you are providing emissions data for past reporting years

Yes

Select the number of past reporting years you will be providing Scope 1 emissions data for

Not providing past emissions data for Scope 1

Select the number of past reporting years you will be providing Scope 2 emissions data for

Not providing past emissions data for Scope 2

Select the number of past reporting years you will be providing Scope 3 emissions data for

1 year

C0.3

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

Belgium
China
Denmark
Egypt
France
Malaysia
Norway
Sweden
Turkey
United Kingdom of Great Britain and Northern Ireland
United States of America

C0.4

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

EUR

C0.5

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

Financial control

C-CE0.7

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

Limestone quarrying
Clinker production
Portland cement manufacturing
Blended cement
Alternative 'low CO2' cementitious materials production
Aggregates production
Concrete production

C0.8

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

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, an ISIN code	Cementir Holding NV ISIN is NL0013995087

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 or committee	Responsibilities for climate-related issues
Chief Executive Officer (CEO)	<p>The Group operates in several Countries, facing increasing regulations on emissions trading and multiple jurisdictions, management of climate-related items is therefore deal with as a relevant issue with a significant impact both in terms of economic value and in terms of operational criticism. Ultimate powers and responsibilities stay with the board of the Group parent company and of the other companies of the Group, consistent with the uniform approach and strategy set out at Group level. The Group CEO is vested by the Board of the Group Parent company with all relevant authority to implement it. He regularly reports to the Board, where the strategic direction of the Group is ultimately set, about its adherence and the overall performance.</p> <p>The CEO is the individual with direct responsibility for climate-related issues. The CEO is responsible for the implementation of the Sustainability Targets defined by the Group and the implementation of the investments related to the Targets. Example of a climate decision:</p> <p>In March 2020 the CEO presented to the BoD the 26 Sustainability Targets set by the Group (including among other, the climate transition plan and related CO2 targets).</p> <p>In July 2020, for the first time, the CEO signed off the CDP climate change response. The CEO has signed of the CDP climate change responses also in 2021, 2022 and 2023.</p> <p>In March 2021, following a request coming from the CEO, Cementir submitted the CO2 target to SBTi. In July 2021, SBTi has validated Cementir's CO2 targets, judged to be consistent with "well below 2°C".</p> <p>In February 2022, the CEO presented to the BoD the 2022-2024 Industrial Plan update. The industrial plan included EUR 97 million of green Capex for the achievement of the 2030 CO2 reduction target defined by the Group. The BoD approved the 2022-2024 Industrial plan and confirmed the Group CO2 emissions targets by 2030.</p> <p>In the first quarter of 2023, following a request coming from the CEO, Cementir Management updated the Group climate transition plan and aligned it to 1.5° scenario.</p> <p>In July 2023, the CEO presented to the Sustainability Committee and BoD the 1.5°C aligned climate transition plan.</p> <p>The CEO is quarterly informed about the evolution of the main KPIs (among other, CO2, alternative fuels, clinker ratio) and about the evolution of the main risks and opportunities related to climate change. If needed, he is informed also more often.</p>
Board-level committee	<p>Due to increasing relevance of climate-related issues and sensibility of the Group, a specific Sustainability Committee has been established within the Board, dedicated to the Group's initiatives and engagement in this field and with responsibilities detailed in the related Charter. The Committee's purpose is: (i) to assist and advise the Board in its oversight of the Group's policies, programs and related risks however concerning sustainability matters; (ii) act under authority delegated by the Board with respect to setting out, monitoring, evaluating and reporting on policies and practices, management standards, strategy, performance and governance, relating to global and local sustainability matters, involving the Group; (iii) regularly interface with the Sustainability Department and the Group Management Team to respectively collect any required information and provide</p>

C1.1b

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

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – all meetings	<p>Reviewing and guiding annual budgets</p> <p>Overseeing major capital expenditures</p> <p>Overseeing and guiding employee incentives</p> <p>Reviewing and guiding strategy</p> <p>Monitoring the implementation of a transition plan</p> <p>Reviewing and guiding the risk management process</p>	<Not Applicable>	<p>The Board of Directors (BoD) is informed and deliberates on climate-related issues at least quarterly. The BoD set the overall strategy, oversees and monitors the Group climate transition plan, approves the performance objectives and goals for the Group, oversees and guides the employees incentives .</p> <p>For example:</p> <p>In February 2022, the BoD examined preliminary consolidated results for 2021, monitor the evolution of the Group climate transition plan, examines and approves the 2022-2024 Industrial Plan update and confirmed the Group CO2 emissions targets by 2030.</p> <p>In March 2022, the BoD examined and approved the Group Sustainability Report. The Group Sustainability Report included, among other, the Group climate transition plan and the main non-financial KPIs (Co2 emission, fuels, water consumption).</p> <p>In March 2022, the BoD also approved the Group Remuneration Policy. The remuneration Policy defines the rules for the Group remuneration system and employees' incentives.</p> <p>In July 2022, the BoD was informed about the evolution on the main Sustainability KPIs and related targets in the first half year of 2022. A specific section for the non-financial indicators (with the indication of Co2 emissions, alternative fuels, water consumption) was included in the 2022 CONSOLIDATED HALF-YEAR REPORT. In this occasion, the CEO has also informed the BoD on Group's willingness to sign the Wash Pledge within the end of the year and to carry out the WBCSD self-assessment for each plant, linked to a specific roadmap. In December 2022 the company signed the Wash Pledge.</p> <p>In November 2022, the BoD reviewed the Group Enterprise Risk Assessment. The BoD defines the guidelines of the risk management system, so that the main risks concerning the whole Group are correctly identified and adequately measured, managed and monitored, determining, the level of compatibility of such risks with the management of the company in a manner consistent with its strategic objectives. The Risk Management system analyses the risks of each Group company (and of the Group) and evaluates the related level of mitigation, through a uniform methodology. All kind of risks are covered by the ERM (strategic, financial, compliance, operational and sustainability), consequently, also risks related to sustainability, as CO2 emissions, alternative fuels availability and others are integrated in the model. A panel of specific risks related to the sustainability aspects is applied to all the Group companies. These analyses are linked with the Group Sustainability Strategy and a separate disclosure is provided to the Audit Committee and BoD. Cementir has therefore committed itself to adopting the recommendations of the TCFD, committing to be transparent about the risks and opportunities related to climate change. Identification, assessment and effective management of risks and opportunities associated with climate change are fully integrated into the Group's risk management process.</p>

C1.1d

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

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues	Primary reason for no board-level competence on climate-related issues	Explain why your organization does not have at least one board member with competence on climate-related issues and any plans to address board-level competence in the future
Row 1	Yes	<p>One Non-Executive Director qualifies as "independent" pursuant to the Dutch Corporate Governance Code with significant experience in ESG matters as climate change and water-related issues.</p> <p>Criteria used to assess competence: the Non-Executive Director is Founding Members and Board Member of Shareholders for Change. Shareholders for Change is a group of institutional investors involved in active engagement with corporations to enhance a sustainable development as an essential element of their role as bond – and shareholders. Shareholders for Change organises collaborative participation in European companies' Annual General Meetings (AGMs) as well as coordinated voting or submission of questions to their boards and managements related to issues such as: CO2 emissions, climate change, water-related issues, other environmental topics, workers' rights and human rights (https://www.shareholdersforchange.eu/what-we-do/).</p> <p>The Non-Executive Director is also board member of Fundación Finanzas Éticas. The Fundación, part of Grupo Banca Etica, is actively involved in promoting the energy transition and raising awareness about the role of ethical finance in the fight against climate change (https://finanzaseticas.net/).</p> <p>The Non-Executive Director also published books and articles about green financing.</p>	<Not Applicable>	<Not Applicable>

C1.2

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

Position or committee

Chief Executive Officer (CEO)

Climate-related responsibilities of this position

Managing annual budgets for climate mitigation activities
 Managing major capital and/or operational expenditures related to low-carbon products or services (including R&D)
 Providing climate-related employee incentives
 Integrating climate-related issues into the strategy
 Managing climate-related risks and opportunities

Coverage of responsibilities

<Not Applicable>

Reporting line

Reports to the board directly

Frequency of reporting to the board on climate-related issues via this reporting line

Quarterly

Please explain

The CEO is the individual with direct responsibility for climate-related issues. The CEO is responsible for the implementation of the group climate transition plan and the achievement of the sustainability targets defined by the Group.

Managing climate-related risk and opportunities/integrating climate-related issues into the strategy.

The CEO is quarterly informed about the evolution of the main KPIs (among other, Co2, alternative fuels, clinker ratio) and about the evolution of the main risks and opportunities related to climate change. If needed, he is informed also more often. In this way, he can integrate the climate-related issue in the group strategy and manage any substantive risk opportunity.

He approves the main annual expenditures and capital investment for climate mitigation activities or related to the development of the group low-carbon cement. For example, in February 2022, the CEO presented to the BoD the 2022-2024 Industrial Plan update. The industrial plan included EUR 97 million of green capex for the achievement of the 2030 CO2 reduction target defined by the Group. The BoD approved the 2022-2024 Industrial plan and confirmed the Group CO2 emissions targets by 2030. The investments included, among others: the revamping of kiln at Belgian plant in order to increase alternative fuels use from current 40% to 80%; the switch to natural gas and biogas in some plants; the ramping up of facilities at the Aalborg plant to produce our low-carbon cement FUTURECEM®.

The remuneration of the first reporting line (C-level) of the CEO is strictly linked to climate transition plan of the Group. On a yearly basis, each C-level must agree with the CEO the part of the short-term incentive system linked to the climate transition plan of the Group. C-level receives a monetary incentive, if their Regions or BU accomplished targets related to CO2 emissions reductions, clinker/cement substitution, use of alternative fuels, water and health & safety. Cementir set 2030 targets, each target has been deployed per single plant and years. The interim targets have been included in the 2022-2024 Industrial plan approved by the BoD in February 2022.

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	The monetary incentive plan adopted by Cementir is based on a short-term incentive (STI) system. The system maintains the proper ratio between its components and adequate incentives to achieve continuously improving performance levels within the sustainable value creation structure. The STI is based on the Group's and/or subsidiaries' financial and non-financial targets and includes objectives based on indicators linked to company performance and to managerial roles actually held within the Company. The STI is a tool with which Cementir promotes also the fulfillment of various climate change-related objectives (especially reduction of CO2 emissions, use of alternative fuels and alternative raw materials). Managers from all organisational levels participate and share in this incentive system, so that fulfilling defined goals results in the receipt of annual monetary incentives.

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

Other C-Suite Officer

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Performance indicator(s)

Achievement of climate transition plan KPI
Reduction in emissions intensity

Incentive plan(s) this incentive is linked to

Short-Term Incentive Plan

Further details of incentive(s)

The Head or Regions report to the CEO and are responsible for the performance of their Region and so for the implementation of the actions defined in the Industrial plan and for the achievement of the interim milestone defined for their region in the group transition plan.

The Head of Regions (C-levels that report to the CEO) receive a monetary incentive, if their Regions accomplished targets related to the Group climate transition plan (i.e., CO2 emissions reductions, clinker/cement substitution, use of alternative fuels). This monetary incentive account for the 15% - 20% of their remuneration. Cementir set 2030 targets for the Group. Each target has been deployed per single Region, plant, and year. The interim targets per Region, plant and year have been included in the 2022-2024 Industrial plan approved by the BoD in February 2022.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

Cementir adopts a competitive remuneration system which guarantees a balance between corporate strategic objectives and recognition of the merits of Group employees. Using variable short remuneration components, the system is designed to facilitate the alignment of staff interests with the pursuit of the priority objective - value creation - and the achievement of financial and sustainability objectives.

The Head or Regions report to the CEO and are responsible for the performance of their Region and so for the implementation of the actions defined in the Industrial plan and for the achievement of the interim milestone defined for their region in the group transition plan. The Head of Regions (C-levels that report to the CEO) receive a monetary incentive, if their Regions accomplished targets related to the Group climate transition plan (i.e., CO2 emissions reductions, clinker/cement substitution, use of alternative fuels). This monetary incentive account for the 15% - 20% of their remuneration. Cementir set 2030 targets for the Group. Each target has been deployed per single Region, plant, and year. The interim targets per Region, plant and year have been included in the 2022-2024 Industrial plan approved by the BoD in February 2022. Cementir set 2030 targets for the Group, each target has been deployed per single Region, plant and year.

As mentioned before, the incentive facilitates the alignment of Head of Region interests with the milestone defined in Cementir climate transition plan and therefore contributes to the achievement of Cementir climate targets.

Entitled to incentive

Chief Operating Officer (COO)

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Performance indicator(s)

Achievement of climate transition plan KPI
Achievement of a climate-related target
Reduction in emissions intensity

Incentive plan(s) this incentive is linked to

Short-Term Incentive Plan

Further details of incentive(s)

The COO reports to the CEO and is responsible for the performance of the Group and so for the implementation of the actions defined in the Industrial plan and for the achievement of the interim milestone defined for each region in the group transition plan.

The COO receive a monetary incentive, if the Group accomplished targets related to the climate transition plan (i.e., CO2 emissions reductions, clinker/cement substitution, use of alternative fuels). This monetary incentive account for the 15% - 20% of its remuneration. Cementir set 2030 targets for the Group. Each target has been deployed per single Region, plant, and year. The interim targets per Region, plant and year have been included in the 2022-2024 Industrial plan approved by the BoD in February 2022.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

Cementir adopts a competitive remuneration system which guarantees a balance between corporate strategic objectives and recognition of the merits of Group employees. Using variable short remuneration components, the system is designed to facilitate the alignment of staff interests with the pursuit of the priority objective - value creation -

and the achievement of financial and sustainability objectives.

The COO reports to the CEO and are responsible for the performance of Group and so for the implementation of the actions defined in the Industrial plan and for the achievement of the interim milestone defined for each region in the group transition plan. The COO receives a monetary incentive, if the Group accomplished targets related to the climate transition plan (i.e., CO2 emissions reductions, clinker/cement substitution, use of alternative fuels). This monetary incentive account for the 15% - 20% of its remuneration. Cementir set 2030 targets for the Group. Each target has been deployed per single Region, plant, and year. The interim targets per Region, plant and year have been included in the 2022-2024 Industrial plan approved by the BoD in February 2022. Cementir set 2030 targets for the Group, each target has been deployed per single Region, plant and year.

As mentioned before, the incentive facilitates the alignment of COO interests with the milestone defined in Cementir climate transition plan and therefore contributes to the achievement of Cementir climate targets.

Entitled to incentive

Other C-Suite Officer

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Performance indicator(s)

Company performance against a climate-related sustainability index (e.g., DJSI, CDP Climate Change score etc.)

Incentive plan(s) this incentive is linked to

Short-Term Incentive Plan

Further details of incentive(s)

The Chief Internal Audit Officers receives a monetary reward based on the Cementir performance against CDP questionnaire. He reports directly to the Group CEO and has been assigned also the responsibility for monitoring the main ESG rating and questionnaire. The Internal Audit is responsible for the periodic monitoring of the activities implemented in reference to the Group's sustainability strategy and its targets. The internal audit is also in charge for the identification, evaluation and monitoring of all Group risks (ERM). All kind of risks are covered by the ERM (strategic, financial, compliance and operational), consequently, also risks related sustainability, as CO2 emissions, alternative fuels availability and others are integrated in the model. The Chief Internal Audit Officer updates the Audit and Risk Committee about the evolution of the main risks, quarterly.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

The Chief Internal Audit Officers receives a monetary incentive according to the score obtained by Cementir in the CDP climate change questionnaire and CDP water security questionnaire. This incentive facilitates the spread of best practices defined by CDP concerning climate change and water management. For example, the Chief Internal Audit Officers constantly monitor the Group climate governance and the group transition plan in order to check their alignment with CDP best practices. In case of any misalignment, the Chief Internal Audit Officers promotes internally, with the top management, the need for updating of governance mechanism or for updating of group transition plan to maintain Cementir in the leadership level of CDP.

C2. Risks and opportunities

C2.1

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

Yes

C2.1a

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

	From (years)	To (years)	Comment
Short-term	0	3	We consider as short-term a time horizon between 0 and 3 years, since it is the period covered by our regular industrial plan. Even if Cementir Climate Change Strategy has a medium-term horizon, intermediate short-term goals have been defined. Cementir plans to accomplish 26 Sustainability Targets within 2030, but short-term targets dated 2023, 2024 and 2025 have been defined and included in the 2023-2025 Industrial Plan. Among other, Cementir established short-term target for CO2 emissions, alternative fuels, clinker ratio, green investments. The 2023-25 Industrial Plan, approved by the Board of Directors in February 2023, targets a € 86 million in investments in sustainability, which will include, among others: the revamping of the kiln at our Belgian plant in order to increase alternative fuel use from the current 40% to over 70%; the switch to natural gas and biogas in some plants; the ramping up of facilities at the Aalborg plant to produce our low-carbon cement FUTURECEM®; the extension of district heating and other energy efficiency projects.
Medium-term	3	10	The medium term is a time horizon beyond the industrial plan but addressed by Cementir Climate Change Strategy. For example, Cementir set up 26 Sustainability Targets to be implemented within 2030. Within 2030, Cementir will: reduce its Scope 1 emissions to 460 kg of CO2 per ton of grey cement, below the threshold required by the EU Taxonomy, and 36% lower than 2020 emissions; increase the alternative fuels to the 50% of the total fuels used for the production of grey cement; lower clinker content of grey cement to 64%. For these targets, interim goals dated 2025 have been defined. Specific Roadmaps have been established to accomplish the 2030 targets.
Long-term	10	30	The long-term is over 10 years. Cementir's ambition is to reduce CO2 emission intensity to achieve net-zero emission along the value chain by 2050. Cutting the CO2 emissions in the medium-term is a priority of Cementir Group, but we also believe that we cannot achieve the carbon neutrality acting alone. For this reason, concerning the long-term horizon, Cementir is involved in strengthening the global partnership for sustainable development. Cementir actively participates in global and national industry policy discussions on issues related to Climate Change, Sustainable Infrastructure, Innovation & Digital Transformation, Operational Efficiency, Health & Safety, Circular Economy, Alternative Fuels, and Waste Management Frameworks, among others. Cementir is a member of the Global Cement and Concrete Association (GCCA). Cementir is also member of the European Cement Research Academy (ECRA). ECRA's most important research projects are related to the carbon capture and storage (CCS) technology. Through the CEMBUREAU (European Cement Association), Cementir is directly involved in dedicated working groups that are coming up with proposals for helping the cement industry towards the net-zero emissions.

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

A comprehensive assessment of all risks is carried out for all sites and businesses of the Group. Climate-related risks and opportunities that could have a material adverse effect on our current/future business are integrated in the Risk Management process.

The risks are identified, assessed, managed and monitored taking into account operations, risk profiles and risk management systems of each business unit, to create a wholly integrated risk management process. The top risks results are submitted to the Top Management (Group CEO and COO) quarterly, and to the Corporate Bodies (Audit Committee and BoD), yearly. Quarterly, a monitoring processes are performed on Group's top risks for monitoring the implementation status of actions plan agreed.

Definition of 'substantive financial or strategic impact'

We define substantive financial or strategic impact as all major adverse events or missed opportunities that have an impact, directly or indirectly, on Cementir's ability to create, preserve or that adversely affect the Group's value.

Risks are assessed in terms of **likelihood** and **impact** and their combination generates the risk scoring. Risk scoring is the results of the multiplication between likelihood and impact.

A scale from 1 to 25 is obtained and the risks that have a **risk score of 12 or higher** are considered to have a potential **substantive financial or strategic impact** that could undermine the business or part of the business.

In the assessments **we consider both direct and indirect operations**.

Description of the quantifiable indicators used to define substantive financial or strategic impact

The risk **impact** value is assessed based on a 5-level rating scale: 1-Negligible, 2-Significant, 3- Relevant, 4-Very Relevant, 5-Extreme.

Impacts are based on the following parameters:

Economical: a specific risk or opportunity is considered as having a substantive impact, if the resulting deviation from the planned EBITDA 2022 (Group EBITDA: € 335,000,000) as follow:

- Impacts below 0.5% of EBITDA are considered as Negligible (< 1,675,000 €)
- Impacts between 0.5%-5% of EBITDA are considered as Significant(€1,675,000-€ 16,750,000)
- Impacts between 5-15% of EBITDA are Relevant (€ 16,750,000 - €50,250,000)
- Impacts between 15-30% of EBITDA are Very Relevant (€50,250,000- €100,500,000)
- Impacts above 30% of EBITDA are considered as Extreme(€ >100,500,000)

Operational: significant delay on the lead time, that cannot be managed through an internal reorganization of business activities, are evaluated as substantive for the Company.

Reputational: Cementir evaluates as substantive the risk of a negative judgment on an international scale by media or high loss of confidence by stakeholders.

In order to assess the overall magnitude of the risk, impact is combined with the likelihood, that is apportioned over a 5-level rating scale: 1- rare, 2- unlikely, 3- moderate, 4- likely, 5- more than likely.

Cementir defines the **likelihood** as the probability of occurrence of climate related events in three-time horizons (short-term 1-3 years, medium term until 2030, long term until 2050):

- Rare: <10%: that the risk event will occur during the three-time horizons from the time of evaluation;
- Unlikely (10%-35%) that the risk event will occur during the three-time horizons from the time of evaluation;
- Moderate: It is likely (35%-65%) that the risk event will occur during the three-time horizons from the time of evaluation;
- Likely: It is highly likely (65%-90%) that the risk event will occur during the three-time horizons from the time of evaluation;
- More than likely: It is almost certain (>90%) that the risk event will occur during the three time horizons ;

Once defined Impact and likelihood, risk scoring is calculated as the multiplication between likelihood and impact.

The risk scoring has a scale from 1 (impact below 0.5% of operating EBITDA and likelihood rare, < 10%) to 25 (Impacts above 30% of operating EBITDA and likelihood More than likely, >90%).

All risks that have a risk score of 12 or higher are considered to have a potential substantive financial impact that could undermine the business or part of the business.

In addition, a risk could be defined as to have a potential substantive financial/strategic impact by the Top Management, regardless the risk scoring resulting from the Risk Management process.

At the end of the year, Cementir consolidates at Group level the results of all the ERM models performed in each subsidiary.

Example of substantive impact

The CO2 regulation impacts the plant located in Europe in terms of limited free CO2 allowances (see C2.3a Risk1) . Among the assumptions used for the definition of the Industrial Plan 2023-2025, an average yearly CO2 shortage of 300,000 tons is expected. In our ERM, for this Risk the score is 12 because the likelihood is '4' (probability 'likely') and economic impact is '3- Relevant', 23 million € assuming a CO2 price of 80€ (300,000x80), that is 5-15% of EBITDA (so 4X3=12).

(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

Cementir identifies, assesses and manages climate risks alongside all other types of risk in a structured manner consistent with the TCFD and as an integral part of its Risk Management Framework.

The process of identifying risks is performed regularly by the Group Risk Officer, involving the Top and Local Management. Macro-economic data and other industry-specific factors and risk information sources serve for the process. In 2022, the Group risk officer, with the support of a consultant, performed a scenario analysis to identify and evaluate the physical risk according to three different climate scenarios proposed by IPCC (RCP 2.6, 4.5 and 8.5) and the transition risk, in particular policy risk, using three scenarios proposed by IEA (High Carbon Price, Moderate Carbon Price and Low-Price Scenario). In 2023, the scenario analysis for transition risk has been updated with the inclusion of a 1.5C scenario (IEA NZE 2050 scenario).

A panel of specific risks is then identified and applied to all the Group companies and the Group's risk profile is assessed both from top down and bottom-up perspectives. The bottom-up assessment is performed at the country level. Each legal entity assesses climate-related risks and opportunities that have the potential to impact financial and non-financial targets over a short (<3 years), medium- (3-10 years) time horizon of long term (> 10 years). The top-down assessment is performed by the Group risk officer via interviews with the local and top management.

Risk and opportunities are assessed according to their likelihood of occurring and their potential magnitude of impact and potential financial impact as reported in C2.1b.

In case substantive risks and/or opportunities are identified, specific actions to mitigate risks or capture identified opportunities are defined. For example, avoid risk by stopping specific activities, transfer risk to insurance company, reduce risk by mitigation measures or accept risk, if the cost to mitigate it, it is higher than to bear the risk. Quarterly, a monitoring processes are performed by the Internal Audit on Group's top risks for monitoring the implementation status of actions plan defined.

The top risks results are submitted to the Top Management (Group CEO and COO) quarterly, and to the Corporate Bodies (Audit Committee and BoD), yearly.

Our risk universe covers the various stages of the value chains: direct operations, upstream and downstream.

We provide below a few examples of how we ultimately respond to identified risks.

Risk that could affect direct operations in short/medium/long term

Tightening emission regulations could translate into increased compliance costs for the Group. In European countries, there is a risk posed by governmental decisions on emissions and fluctuations in the price of CO₂ emission quotas (set by the EU ETS). These annually permitted emission quotas are also being discussed in other countries where the Group operates, like China, where a system comparable to the EU has introduced in 2021 for the power generation sector.

Concerning the EU ETS, among the assumptions used for the definition of the Industrial Plan 2023-2025, an average yearly CO₂ shortage of 300,000 tons is expected. The potential financial impact for Cementir could be around 24 million € of additional yearly cost, assuming a CO₂ price of 80 EUR.

Task: The Group must constantly monitor its emissions and compliance with regulations and planning the availability of CO₂ emissions quotas. The Group must also define a 10-year roadmap to reduce its emissions to reduce the risk related to emission regulations.

Action: In the Group Risk Register, the tool used by the Group to identify and monitor each risk, the risk "Increase in the price of CO₂ and adoption of the ETS Regulation in non-EU countries" is listed. This risk is evaluated during each session of risk process with each plant of the Group. Likelihood, impact and risk scoring, as described in C.2.1b, are evaluated for this risk in each plant. This risk could have a substantive financial impact for the group.

To manage the risk, each plant defined a 10-year roadmap with the actions and investment to be implemented to reduce emissions.

Results: Cementir will reduce its Scope 1 emissions to 460 kg of CO₂ per ton of grey cement, 36% lower than 2020 emissions. For white cement, Cementir's plan is to reduce its Scope 1 emissions to 738 kg, 19% lower than 2020 emissions.

In the short term, specific investments have been included in the 2023-2025 industrial plan. For example, concerning the Belgium plant, we have planned the upgrade of the kiln to increase alternative fuels usage to 80% of total fuel usage. - In the medium term, we will implement several actions (reduction of clinker content in cement, replacement of fossil fuels with biomass, reduction of thermal consumption) for reducing CO₂ emissions per ton of cement of 36% for grey cement and of 19% for with cement, from a 2020 base year.

For the long term, Cementir is testing breakthrough technology. In October 2022, a pilot carbon and capture unit was established and tested at the Aalborg Portland plant to collect information about CCS technology. As of July 2023, the pilot CCS is currently working and Cementir is evaluating the results of the testing. If successful, the project could be scaled up with the potential to capture 400,000 tons of CO₂ per year by 2030.

Example of physical risk that could affect downstream in short term

Cement is the main component of concrete and for our customers that are producing concrete, water is an essential "raw material". In the high water stressed area, a stakeholder conflict could be with our customers.

For our customers located in water stress area, as central Europe (i.e., Belgium), is becoming relevant to have supplier of cement able to guarantee a sustainable use of water to obtain public works contracts. Several governments recognized the importance of label as Concrete Sustainability Council (CSC) certification in the procedures for the award of public works contracts. To obtain the CSC supplier certificate, the cement and aggregates plants must meet several requirements about environmental topics, as "water management", "land use", "energy & climate", "air emissions". In 2019, the plants located in Belgium, a high-stress area, decided to commit the CSC Certification System to meet the new requirements of the Customers and secure the sales related to public works contracts. In 2020 and 2021 our cement and aggregates plant located in Belgium obtained the CSC Certification. The certification shows the effort of our Belgian operations to manage water issues along the value chain and meet the requirements established by the procedures for the award of public works contracts. Therefore, in 2022 our Belgian operations can secure sales related to public works contracts. Without CSC certification, our Belgian operations could have lost this type of business.

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

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	<p>The regulation related to CO2 emissions currently impacts the Cementir Group plants located in Europe (Belgium and Denmark) in terms of limited free CO2 allowances. European plants are regulated by The European Union Emissions Trading System (EU ETS). Among the assumptions used for the definition of the Industrial Plan 2023-2025, an average yearly CO2 shortage of 300,000 tons is expected. The potential financial impact for Cementir could be around 24 million € of additional yearly cost, assuming a CO2 price of 80 EUR.</p> <p>Climate-related issues and the linked CO2 emissions regulations are affecting also the suppliers' landscape, especially in Europe.</p> <p>For example, the fly ash is a by-product from burning pulverized coal in electric power generating plants. In Europe, pressure on reducing coal fired plants progressively reduces fly ash availability and increases the related prices. Fly ash from coal-fired power plants can be used effectively as a component of raw kiln feed for the manufacture of cement clinker.</p> <p>In our Danish plant located in Aalborg, the fly ash is used for the production of the clinker and the related fly ash cement.</p> <p>The utilization of fly ash, as alternative raw materials, can lower the clinker/cement ratio. As clinker production is the most energy-intensive and CO2-emitting step of the cement-making process, reductions in the clinker/cement ratio (through use of clinker substitutes) reduce energy use and CO2 emissions. One possible way to reduce energy and CO2 emissions in cement production is to blend cements with increased proportions of alternative (non-clinker) feedstocks, such as fly ash from coal-fired power generation. So, fly ashes are also a lever used to mitigate CO2 impacts, but, in Europe, CO2 emissions regulations are progressively reducing their availability.</p>
Emerging regulation	Relevant, always included	<p>For Cementir, e.g., is consider the risk that emission trading system, like EU ETS, will be implemented in non-European country.</p> <p>This is a risk for non-European Group companies since, in some countries an emission trading system will probably start.</p> <p>Of the areas where the Cementir Group is operating, EU is the only major region with a cap and trade system.</p> <p>The other plant that are producing cement are located in China, Malaysia, Turkey, Egypt and US.</p> <ul style="list-style-type: none"> - China has announced to implement a CO2 trading system. The National ETS in China has been activated in 2021 and the power industry is the first industry to ETS and involved 2,225 power companies. The next step is to expand the pilot companies from power to multiple industries including Power, Petrol-chemical, Chemical, Building materials, Iron & Steel, Non-ferrous metals, Paper and Civil aviation industries. It's predicted that Cement and Non-ferrous metals could be covered in Y2025. In 2022, the performance of the Anqing plant (the only Cementir plant located in China) was better than ETS Benchmark for white cement. The Anqing plant is producing white cement. The plant emissions were 948 kg CO2/ton clinker versus a benchmark of 957 kg CO2/ton clinker. Considering the performance of our Chinese plant, in the medium-short term, the implementation of a carbon emission trading system will not affect negatively Cementir. - Turkey is discussing the implementation of ETS or CO2 taxation system. Cementir Turkish plants have sent their first greenhouse observation and tracking plans to Turkish Ministry of Environmental starting from 2014. Very likely, in medium term, Turkey will establish a carbon pricing process, but as of July 2023 no additional information are available. - Regional systems in a few US states but not in Texas and Pennsylvania where the Group is operating. - No immediate plans in Egypt and Malaysia.
Technology	Relevant, always included	<p>Cement manufacturing is an energy and CO2 intensive process.</p> <p>The deployment of breakthrough technology will be a corner stone in the path versus the production of 'net zero emissions' cement.</p> <p>Risks and opportunities associated with technological innovations that could reduce CO2 emissions and energy consumption are an integral part of our risk management process, because the players that better succeed on finding new technologies will have a competitive advantage.</p> <p>The Group is investing for reducing the CO2 emissions and for developing the new technologies needed to accomplish the goal of net-zero emissions.</p> <p>For example, Cementir developed a new type of cement FUTURECEM.</p> <p>FUTURECEM is a limestone calcined clay cement with up to 30% CO2-reduction compared with existing, conventional cement types. It is a patented technology based on limestone and calcined clay, developed by the Group. The combination of limestone and calcinated clay in FUTURECEM can replace a significant quantity of clinker in cement. Clinker is an interim product that is produced at high temperatures in cement kilns. Hence, replacing clinker with the combination of limestone and calcinated clay means significant reductions in CO2.</p> <p>On 1 January 2021, we began the distribution of FUTURECEM in Denmark. Following the launch in Denmark, FUTURECEM roll-out is accelerating in the Cementir Group's European market. CCB, the Cementir subsidiary in Belgium, started the distribution of FUTURECEM in France in 2022, while in Benelux the target is by 2023.</p> <p>By 2030, FUTURECEM volumes sold are expected to reach around 51% of total volumes of grey cement sold in Europe.</p> <p>Moreover, in October 2022, a pilot carbon and capture unit was established and tested at the Aalborg Portland plant to collect information about CCS technology. As of July 2023, the pilot carbon capture is currently working and Cementir is evaluating the results of the testing activity. If successful, the project could be scaled up with the potential to capture 400,000 tons of CO2 per year by 2030. Moreover, in 2022, Cementir established an interdisciplinary working group responsible for, among with other areas: understanding of current and future legislation on CO2 infrastructure and storage, investigating the possible subsidy schemes and partners for future funding, assessing the best solution for the Group.</p>
Legal	Relevant, always included	<p>Although we are currently not subject to any climate change-related litigation, climate change related litigation risk is an emerging phenomenon. An example of a risk would be a lawsuit related to the adverse effects of climate change on certain groups of people due to our role as an emitter of CO2.</p> <p>Moreover, potential breaches of laws and regulations in the areas of CO2 emissions or other air emissions such as NOx and SOx could result in the imposition of sanctions.</p> <p>All air emissions are monitored at site level to check the compliance with the laws. Legal and compliance risks are part of the Group's risk assessment process and are managed both at Group level and local level. Group Legal department tracks all litigation cases and provides support to the local companies in defence and dispute resolution.</p>
Market	Relevant, always included	<p>Since in some of the countries in which the company operates there is an increasing attention to embodied energy and CO2 in building materials, there is the risk of substitution of existing products (concrete) and services with lower emissions options.</p> <p>In North Europe, the main risk is the increase in wood usage for flats, hotels, bridges and other applications.</p> <p>Between 2018 and 2019, we perform a survey to explore and figure out the status of the green transition in North Europe, then how it will change the construction industry in the coming years and finally what a building materials manufacturer such as Cementir should do when it comes to sustainability.</p> <p>The survey, confirmed the importance to develop and distribute low carbon solutions to reduce the risk of substitution with wood or similar alternative building materials.</p> <p>As mentioned in section technology of C2.2a, Cementir developed a new type of cement (FUTURECEM) responsible for fewer CO2 emissions (30% lower CO2 content). On 1 January 2021, we began the distribution of FUTURECEM.</p> <p>In addition, in the last years, several governments, especially in North Europe, starting to promote the development of sustainable building materials and recognize the importance of label as Concrete Sustainability Council (CSC) certification in the procedures for the award of public works contracts. The CSC is a certification system for globally responsible sourcing. The CSC strives to generate a market pull for green concrete by promoting sustainable construction through their certified concrete. Concrete that is from a CSC certified cement plant is more sustainable because it meets the standards set for the following categories: reducing CO2 emission; fair business practices & compliance; enhancing biodiversity; excellence in occupational health & safety; moving towards circularity, using water in a responsible manner; and enhanced responsibility in the supply chain.</p> <p>For our customers located in specific European countries as the Netherlands and Belgium is becoming relevant to have supplier of cement certified as CSC in order to obtain public works contracts.</p> <p>Between 2020 and 2021 cement and aggregates business located in Belgium obtained the CSC certification. In 2020, the Belgian cement plant of Cementir Group has received Silver certification from CSC. In 2021, the quarries in Gaurain and Clypot in Belgium obtained the CSC (Concrete Sustainability Council) GOLD certificate.</p>
Reputation	Relevant, always included	<p>The cement and concrete businesses are characterized by an high impact in terms of emissions. For this reason, is important that all the actions that the Group is undertaking in order to limit the impact on the environment and reduce the emission level, are well communicated to the stakeholders and that their expectations regarding the Group are well analysed.</p> <p>The risk of being perceived as a large carbon emitter could reduce our attractiveness to stakeholders such as customers, investors, and potential employees.</p> <p>An example can be the investigative reports published by 'The Guardian' about the environmental impacts of concrete. The building materials industry without clear distinction between respective players was subject to a series of articles pointing to concrete's responsibility in climate change. Such campaigns could lead to a negative perception of our products by our final customers, thus influencing building material preferences.</p> <p>Link: https://www.theguardian.com/cities/series/guardian-concrete-week</p> <p>Cementir is worldwide leader in the production of white cement. Due to the higher energy consumption needed for production of white clinker, compared to grey, the CO2 emission are certainly higher. A significant gap versus the other cement player must be highlighted.</p> <p>The management at group and local level engages regularly with relevant stakeholders to ensure sufficient transparency is provided on the environmental, social and economic responsibility of concrete, cement and aggregate companies' operations and their supply chains.</p> <p>Transparent communication with stakeholders is a pillar of Cementir strategy. For example, in 2022, Cementir submitted the CDP Climate Change questionnaire, the Water Security Questionnaire and for the first time, Cementir became a member of the UN Global Compact, by making a formal commitment to supporting it and its principle.</p>
Acute physical	Relevant, always included	<p>The risk of interruption of the operations due to natural events / disasters (such as floods or tropical hurricanes) or climate change is always included in the risk assessment and, consequently, analysed in all the Group companies.</p> <p>For example in Norway (where Cementir produces and sells concrete) climate condition, especially during the winter season, could affect the plant operations and the related sales. If the winter is very cold, construction project could be postponed or delayed. In such cases, the customers postpone their purchases and as a consequence the sales of Cementir are postponed.</p> <p>The issue is managed through different actions. For example, Cementir arrange training to the customers about how to perform winter concrete casting (especially to the foreign companies that are performing construction project in Norway but that are not familiar with the weather). In addition, the ordinary maintenance of the plants is planned during the winter, when, as mentioned, due to climate condition, the sales are slower.</p>

	Relevance & inclusion	Please explain
Chronic physical	Relevant, always included	<p>For example, in cement production, a good quality of freshwater is not material, but sufficient quantities of water are needed for cooling the equipment, conditioning the kiln gases and dedusting and cleaning. So, water availability at a catchment level is important in our risk assessment as we need water in our cement production process. The risk is that some of our plant located in water stressed area (i.e. Belgium, Turkey or Egypt) could be affected by shortages in water.</p> <p>Long-term shifts in climate patterns that may cause water scarcity must be monitored.</p> <p>For this reason, Cementir must perform a water availability assessment to manage any potential issue in water supply.</p> <p>In the Group Risk Register, the tool used by the Group to identify and monitor each risk, the risk "water stress" is listed. This risk is evaluated during each session of risk process with each plant of the Group. In 2022, a comprehensive water risk assessment was carried out for all cement plant using the WRI Aqueduct. A high water stressed area is defined as having a baseline water stress greater than 40%. The baseline water stress measures the current level of water demanded in a local area against the average available blue water. In 2022, 37% of water consumption in cement was in high and extremely high-water stress areas.</p> <p>The group defined specific target reduction for the water consumption. Within 2030, the Group will reduce the water consumption per ton of cement by 20%, comparing 2019. In the water stressed area the goal is to reduce the consumption per ton of cement by 25%.</p> <p>Moreover, even in 2023, Cementir submitted CDP water questionnaire. Reporting through CDP will help Cementir to improve the current practices of water management. Company's commitment toward water security is highlighted also by the signature of the Wash Pledge, on providing access to safe water, sanitation and hygiene (WASH) at the workplace within its operations and supporting partners across its value chain and communities that surround its workplaces.</p>

C2.3

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

Yes

C2.3a

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

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Current regulation	Carbon pricing mechanisms
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Primary potential financial impact

Increased direct costs

Climate risk type mapped to traditional financial services industry risk classification

<Not Applicable>

Company-specific description

As a Cement Company with two plants located in Europe (Gaurain plant in Belgium and Aalborg plant in Denmark), we are subject under regulatory regime to the EU ETS system, and the financial implications of such a scheme are a risk for us.

Among the areas where Cementir operates, Europe is the only major region with a regulatory framework for CO2 quotes.

The EU ETS works on the 'cap and trade' principle. A cap is set on the total amount of certain greenhouse gases that can be emitted by the installations covered by the system. The cap is reduced over time so that total emissions fall.

Within the system, each cement plant must monitor and report its CO2 emissions, yearly. If the CO2 emitted by the cement plant exceeds what is permitted by its free allowances, a plant must purchase allowances on the markets. Conversely, if a cement plant has performed well at reducing its emissions and those are less than its free allowances, it can sell its leftover credits.

The free allowances are assigned according to the emission recorded by the 10% most efficient cement plants located in EU, so most of the cement plant does not have enough free allowances to cover its emission and must buy allowances on the markets.

For this reason, the EU ETS is increasing the direct cost of most cement plants in EU. The direct cost is increasing because the plant must buy allowances to cover their emissions.

The magnitude of this risk mainly depends on:

- the volume of free allowances received by the plant;
- the CO2 emitted by the plant;
- the market price for allowances.

Among the assumptions used for the definition of the Industrial Plan 2023-2025, an average yearly CO2 shortage of 300,000 tons is expected. 300,000 tons is the sum of shortages expected for our two European plants (Gaurain plant in Belgium and Aalborg plant in Denmark).

The potential financial impact for Cementir could be around 24million € of additional yearly cost, assuming a CO2 price of 80 EUR (300,000 x 80).

Time horizon

Short-term

Likelihood

Likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

24000000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

Among the assumptions used for the definition of the Industrial Plan 2023-2025, an average yearly CO2 shortage of 300,000 tons is expected. The potential financial impact for Cementir could be around 24 million € of additional yearly cost, assuming a CO2 price of 80 EUR (300,000 x 80). 24 million € is the 7.16% of 2022 Group EBITDA. In 2022, the Group EBITDA was 335,250 million €.

The CO2 shortage is calculated as difference between the CO2 that our European plants (Gaurain and Aalborg) will emit in 2023-25 period and the free allowances that our plants will receive according to the ETS rules, in the same period. The CO2 that European plants will emit in 2023-25 period are calculated according to the KPIs planned in the industrial plan 23-25 (cement to be produced, content of clinker in the cement, fuels used for the production).

Since the CO2 emitted by our plants will exceed what will be permitted by our free allowances, we will have to purchase allowances on the markets.

Cost of response to risk

295000000

Description of response and explanation of cost calculation

Situation: Reductions in the CO2 emitted by our European plants (Gaurain and Aalborg) will mitigate the financial implications of ETS.

Task: Within 2030, Cementir will reduce Scope 1 emissions to 460 kg of CO2 per ton of grey cement, 36% lower than 2020. For white cement, Cementir will reduce Scope 1 to 738 kg, 19% lower than 2020. Those commitments are defining our strategy for managing this risk.

Action and result:

Cementir developed a roadmap until 2030 which is focused on:

A) reduction of clinker content to 64% for grey cement (versus the 80% recorded in 2022) and 78% for white cement (versus the 81% recorded in 2022). In the production, the majority of CO2 emissions occur when limestone calcinates into clinker in the kiln, so reduction in the clinker content will lead to a reduction in the Co2. We will reduce the clinker content through: replacement of clinker with alternative decarbonised mineral such as fly ash and slag; development of a new low-carbon cement, FUTURECEM. On 2021, we began the distribution of FUTURECEM in Denmark. In 2022, FUTURECEM were about the 10% of the grey cement distributed by our danish plant. By 2030, FUTURECEM is expected to reach 51% of total volumes of grey cement sold in Europe. To achieve the reduction of clinker content, we identified 204 million € of investment in the period 2022-2030.

B) Replacement of fossil fuels with alternative fuels. For grey cement, by 2030, Cementir will use 50% alternative fuel (versus the 32% of 2022), while for white cement alternative fuels will amount to 13% (versus the 2% of 2022). To achieve the replacement mentioned, Cementir identify 91 million € of investment in the period 2022-2030.

C) Implementation of Carbon Capture and Storage plant in our plant of Aalborg. In October 2022, a pilot carbon and capture unit was established at the Aalborg plant.

Cementir is currently evaluating the results of the testing activity. If successful, the project could be scaled up with the potential to capture 400,000. As of July 2023, we are currently estimating the investment for a carbon capture and storage facility.

As Cost of response to risk we report the sum of spending for equipment, engineering activities, construction works, electrical and mechanical activities that the Group planned to accomplish the 2030 target. This sum is 295 million €, that is the 204 million for reduction of clinker content (A) plus the 91 million for replacement of fossil fuels with alternative fuels (B).

Comment

There are not other additional relevant information

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

Products and services

Primary climate-related opportunity driver

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

Primary potential financial impact

Reduced direct costs

Company-specific description

As a Cement Company with two plants located in Europe (Gaurain plant in Belgium and Aalborg plant in Denmark), we are subject under regulatory regime to the EU ETS system, and the financial implications of such a scheme are a risk for us (as described in C2.3a 'Risk 1').

Reductions in the CO2 emitted by our European plants (Gaurain plant in Belgium and Aalborg plant in Denmark) will mitigate the financial implications of EU ETS.

For this reason, the development of our low carbon cement, FUTURECEM is a great opportunity for reducing the Co2 emitted by our European plants and therefore mitigate the financial implications of EU ETS.

FUTURECEM is a limestone calcined clay cement with up to 30% CO2-reduction compared with existing, conventional cement types.

On January 2021, Cementir started the production and distribution of FUTURECEM in Denmark. In 2022, we started the distribution in France.

In the 2023-2025 period, the Group has planned the sale of more than 1 million ton of FUTURECEM™.

In the 2023-2025 period, the replacement of 1 million ton of the current grey Portland cement produced by our plant with the production of 1 million ton of FUTURECEM could reduce our CO2 emission of about 231,000 ton.

According to current estimates, by 2030 FUTURECEM volumes sold are expected to reach around 51% of total volumes sold in Europe.

Time horizon

Medium-term

Likelihood

Virtually certain

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)

18480000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

As a Cement Company with two plants located in Europe (Gaurain plant in Belgium and Aalborg plant in Denmark), we are subject under regulatory regime to the EU ETS system, and the financial implications of such a scheme are a risk for us (as described in C2.3a 'Risk 1').

Reductions in the CO2 emitted by our European plants (Gaurain plant in Belgium and Aalborg plant in Denmark) will mitigate the financial implications of EU ETS.

For this reason, the development of our low carbon cement, FUTURECEM is a great opportunity for reducing the CO2 emitted by our European plants and therefore mitigate the financial implications of EU ETS.

FUTURECEM is a limestone calcined clay cement with up to 30% CO2-reduction compared with existing, conventional cement types.

On January 2021, Cementir started the production and distribution of FUTURECEM in Denmark. On January 2021, Cementir started the production and distribution of FUTURECEM in Denmark. In 2022, we started the distribution in France.

In the 2023-2025 period, the Group has planned the sale of more than 1 million ton of FUTURECEM.

In the 2023-2025 period, the replacement of 1 million ton of the current grey portland cement produced by our plant with the production of 1 million ton of FUTURECEM could reduce our CO2 emission of about 231,000 ton.

Assuming a CO2 price of 80 €/ton, in the period 2023-2025, the potential benefit for Cementir could be 18,480,000 € (231,000 x 80 = 20,000,000) in terms of less CO2 quotas to be purchased in the EU ETS.

Cost to realize opportunity

10000000

Strategy to realize opportunity and explanation of cost calculation

Situation: Reductions in the CO2 emitted by our European plants (Gaurain in Belgium and Aalborg in Denmark) will mitigate the financial implications of EU ETS and will lead to a reduction of direct cost .

Task: The Group is investing for developing new technology for reducing the CO2 emissions. Cementir developed a new type of cement (FUTURECEM) responsible for fewer CO2 emissions.

FUTURECEM is a limestone calcined clay cement with up to 30% CO2-reduction compared with existing, conventional cement types.

From 2014-2019, Cementir participated, together with researcher institutions and a range of stakeholders and customers from the construction industry, in the Danish project Green Concrete II with the aim of testing FUTURECEM in a wide range of actual ready-mix concrete applications. In this project, FUTURECEM was tested at full-scale in construction parts for infrastructures. Those demo projects demonstrate that FUTURECEM can be implemented in the concrete industry using conventional production and execution technologies.

In March 2020, Bureau Veritas certified the compliance of FUTURECEM with the requirements in cement standard (EN 197-1:2011).

On 2021, Cementir started the production and distribution of FUTURECEM in Denmark. In 2022, we started the distribution in France.

Action and results

In the 2023-2025 period, the Group has planned the sale of more than 1 million ton of FUTURECEM® .

In the 2023-2025 period, the replacement of 1 million ton of the current grey Portland cement produced by our plant with the production of 1 million ton of FUTURECEM could reduce our CO2 emission of about 231,000 ton. Assuming a CO2 price of 80 €/ton, in the period 2023-2025, the potential benefit for Cementir could be 18,480,000 € (231,000 x 80 = 20,000,000) in terms of less CO2 quotas to be purchased in the EUT ETS.

In 2022, FUTURECEM were about the 10% of the grey cement distributed by our danish plant. By 2030, FUTURECEM is expected to reach around 51% of total volumes of grey cement sold in Europe.

As Cost to realize the opportunity, we report 10 million € that is the sum of spending for equipment, engineering activities, construction works, electrical and mechanical activities that the Group included in the industrial plan 23-25, for upgrading the facilities to allow production of FUTURECEM and therefore supporting the roll-out planned for the period 2023-2025.

Comment

There are not other additional relevant informantion

Identifier

Opp2

Where in the value chain does the opportunity occur?

Upstream

Opportunity type

Resource efficiency

Primary climate-related opportunity driver

Reduced water usage and consumption

Primary potential financial impact

Increased access to capital

Company-specific description

The recovery and potabilization of water removed during the exploitation of our quarry of limestone of Clypot (Belgium) has been a great opportunity because thank to new infrastructures developed with the local water provider and the local authority, we recover water for supplying 20,000 households allowing the local authority to close production wells and thus spare the aquifer in a high water-stress area. According to the analysis performed by the local authority, the local aquifer where the quarry is located (the Soignies Ecaussinnes hydrogeological basin) is currently overexploited.

During the operations of extraction of limestone, the water that naturally come out, must be removed to allow dry extraction in the quarry. Until 2020, the water was discharged to surface. Starting from March 2021, the water have been recovered and sent to to the public water station for drinking water treatment. In the period 2021/2022, 1,800 megaliters of water have been recovered.

The quarry is exploited by Cementir for the limestone and by a third-party for the blue stone. The project is a collaboration with the third-party that is exploiting the quarry, the local water provider and the local authority.

This operation:

- increased our access to capital because, as explained below, the investment for the new infrastructures has been split between Cementir, local authority, local water provider and the third-party that is exploiting part of the quarry;
- improved our resilience to future regulatory changes, reducing the risk of future conflicts with other stakeholders that use the same aquifer (villagers, employees, customers, suppliers) and reducing the risk of future limitation in water utilization by local authorities (regulators) or local water provider.

Following 4 year of study, between 2018 and 2020, we setup the infrastructures for recovering (connecting pipes) and treating the water. Prior sending to public station, the water is treated to guarantee the physical removal of suspended solids and floating material, by sedimentation.

The whole system has been operational since March 2021.

The total investment amounts to 1.6 million €, split in equal part between Cementir (400,000 €), local authority (400,000 €), local water provider (400,000 €) and the third-party (400,000 €).

Time horizon

Short-term

Likelihood

Virtually certain

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

1250000

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

As potential financial impact we report 1,250,000 €:

- 1,200,000 €, that is the equipment, engineering activities, construction works, electrical and mechanical activities by the other partners of the project. The total investment for equipment, engineering activities, construction works, electrical and mechanical activities amounts to 1.6 million €, split in equal part between Cementir (400,000 €), local authority (400,000 €), local water provider (400,000 €) and the third-party (400,000 €);

- 50,000 € related to the water withdrawal tax refunded by the local authority (the 50% of the annual tax pay by Clypot for water withdrawal). As a part of the agreement in place, following the implementation of the investment, the local authority will refund to Cementir the 50% of the annual tax for water withdrawal.

Cost to realize opportunity

400000

Strategy to realize opportunity and explanation of cost calculation

Situation. During the operations of extraction of limestone in our quarry of Clypot, the water that naturally come out, must be removed to allow dry extraction in the quarry. During this operation, we withdraw water from the hydrogeological basin of Soignies Ecaussinnes, that according to the local authority is currently overexploited. The area where our quarry is located is evaluated as a high water-stress area by the WRI Aqueduct Global Water Tool. Until 2020, the water withdrew during the operations was discharged to surface.

Task. Due to the concerns expressed by the local authority about the risk of water scarcity, starting from 2014, we investigated the possibility to recover the water removed during the operations without discharging it to surface. The project has been developed in partnership with the local authority, the local water provider and the third-party that is exploiting part of the quarry.

Action. Following 4 year of study, between 2018 and 2020, we setup the infrastructures for recovering (connecting pipes) and treating the water. Prior sending to public station, the water is treated to guarantee the physical removal of suspended solids and floating material, by sedimentation.

Results. The whole system has been operational since March 2021. In the period 2021/2022, 1,800 megaliters of water have been recovered and sent to the public water station for drinking water treatment.

The total investment for equipment, engineering activities, construction works, electrical and mechanical activities, connecting pipes plus treating system amounts to 1.6 million €, split in equal part between Cementir (400,000 €), local authority (400,000 €), local water provider (400,000 €) and the third-party (400,000 €).

As cost to realize opportunity we reported the sum of equipment, engineering activities, construction works, electrical and mechanical activities, connecting pipes plus treating system paid by Cementir (400,000 €).

Following the good results obtained in recovering the water from our quarry of Clypot, we proposed to the local authority to extend the water potabilization also to Gaurain's quarry, the agreement of the project has been signed and it will come in force from 2024.

Comment

There are not other additional relevant information

Identifier

Opp3

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Resilience

Primary climate-related opportunity driver

Participation in renewable energy programs and adoption of energy-efficiency measures

Primary potential financial impact

Increased revenues through access to new and emerging markets

Company-specific description

In our plant of Aalborg (Denmark), we have implemented a system for recovering heat from combustion gases used during the production of cement to provide district heating to local inhabitants. In 2022, the plant delivered about 1.3 million GJ of energy to the Municipality of Aalborg. The recovered thermal energy is used to heat the homes of about 30,000 families.

According to the engineering project developed by the Group, the plant could improve the supply of energy of additional 1 million GJ.

This is a relevant opportunity because:

- The production of heat recovered from Aalborg's kiln operations has been assessed as aligned with the EU Taxonomy. In particular, it makes a substantial contribution to climate change mitigation (environmental objective number 1 of EU Taxonomy) as it is conducted by respecting all of the Do Not Significant Harm criteria concerning the other environmental objectives defined by the EU Taxonomy. For this reason, the utilization of excess heat in the grid can be a key for the green transition of Denmark. In autumn 2019, Denmark's parliament adopted a new climate law with the target of reducing Danish CO2 emissions by 70% by 2030, from a 1990 baseline. The annual CO2 savings from this heat recovery system have been estimated at 150,000 tons. The calculation is based on the amount of CO2 that is not emitted from the local coal-fired power station because the total needs are partially covered by the heat coming from the Aalborg plant;
- the delivery of excess heat can generate additional profit for the plant. The heat delivered to the district heating is sold by Aalborg plant to the local energy provider that manages the district heating.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

5000000

Potential financial impact figure – maximum (currency)

10000000

Explanation of financial impact figure

The plant can increase the amount of heat recovered from combustion gases used during the production of cement.

According to the engineering project developed by technical department with the support of external consultants, the plant can recover additional 1 million GJ to be delivered to the district heating.

The heat delivered to the district heating is sold by Aalborg plant to the local energy provider that manages the district heating.

Assuming a price for the energy delivered between 5 € per GJ and 10 € per GJ, we can estimate a positive financial impact between 5 million € and 10 million €.

Cost to realize opportunity

35000000

Strategy to realize opportunity and explanation of cost calculation

Situation: In autumn 2019, Denmark's parliament adopted a new climate law with the target of reducing Danish CO2 emissions by 70% by 2030, from a 1990 baseline

Task: Aalborg's Plant will contribute substantially to the Danish goals. The production of heat recovered from Aalborg's kiln operations makes a substantial contribution to climate change mitigation (environmental objective number 1 of EU Taxonomy) as it is conducted by respecting all of the Do Not Significant Harm criteria concerning the other environmental objectives defined by the EU Taxonomy. For this reason, the utilization of excess heat in the grid can be a key for the green transition of Denmark.

Action and Results: The plant can increase the amount of heat recovered from combustion gases used during the production of cement.

According to the engineering project developed by technical department with the support of external consultants, the plant can recover additional 1 million GJ to be delivered to the district heating. In 2022, the plant delivered about 1.3 million GJ of energy to the Municipality of Aalborg. The recovered thermal energy is used to heat the homes of about 30,000 families. With the additional 1 million GJ we can provide heating to about 50,000 families in total. The mentioned project must be developed in partnership with the Municipality of Aalborg that is in charge for the management of the district heating and that must manage the additional energy coming from the plant

In the plant, we are producing grey cement and white cement. The plant has 6 kilns for the production of cement. As of July 2022, only 5 kilns are equipped to recover heat and deliver it to the district heating. The installation of the heat recovery system in the last kiln can increase the supply of heat to the district heating of 1 million GJ.

The cost to realize the opportunity is related to investment needed to equip the kiln for grey cement with heat recovery system.

Costs to realize the opportunity have been already estimated by Cementir in a business case. The investment is about 35 million € (50% of the investment is related to the equipment and 50% related to the other activities needed as installation, engineering, construction works, electrical and mechanical activities).

Comment

There are not other additional relevant information

C3. Business Strategy

C3.1

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

Row 1

Climate transition plan

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

Publicly available climate transition plan

Yes

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

We have a different feedback mechanism in place

Description of feedback mechanism

Cementir has developed an action-oriented and climate science-led strategy that will keep its business and its value chain on the pathway to 1.5°C. The goal of Cementir is to achieve the net-zero emission along the value chain within 2050. For this reason, Cementir defined a 2030 target and 2050 target according to the guidelines defined by SBTi. As reported in C1.1b, the BoD oversees and monitors the implementation for the Group climate transition plan.

We collect feedback from shareholders through:

- Direct contact. The CEO is the second main shareholder of Cementir with the 5.48% of share capital (please also note that the father of the Group CEO is the main shareholder of Cementir with the 66.75% of share capital). The CEO is the individual with direct responsibility for climate-related issues. The CEO is responsible for the implementation of the climate transition plan defined by the Group and the implementation of the investments related. The CEO is quarterly informed about the evolution of the main KPIs (among other, Co2, alternative fuels, clinker ratio) and about the evolution of the main risks and opportunities related to climate change. If needed, he is informed also more often.
- Transparent communication with all stakeholders. In 2022, Cementir filled both the CDP climate change and water security questionnaires and published a Group Sustainability Report with the limited assurance of external auditor to provide transparency about environmental disclosures. Through CDP questionnaires and Sustainability Report (documents available on the corporate website) any shareholders can collect the information about Cementir climate transition plan and its status of implementation. Any shareholder can provide its feedback through different channels as: shareholders meetings or direct contact as defined in the Policy for bilateral contacts with shareholders that is available in the corporate website.
- Periodical materiality assessment process. In 2022, 580 stakeholders have been involved in the process. Through an anonymous multiple-choice survey stakeholders were asked to share the degree of relevance they assigned to material business topics, such as climate change mitigation.
- Constant engagement with ESG rating agencies. Assessments and feedbacks from agencies, available on the corporate website, are another source of information for any stakeholder about Cementir climate transition plan.

Frequency of feedback collection

More frequently than annually

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

Explain why your organization does not have a climate transition plan that aligns with a 1.5°C world and any plans to develop one in the future

<Not Applicable>

Explain why climate-related risks and opportunities have not influenced your strategy

<Not Applicable>

C3.2

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

	Use of climate-related scenario analysis to inform strategy	Primary reason why your organization does not use climate-related scenario analysis to inform its strategy	Explain why your organization does not use climate-related scenario analysis to inform its strategy and any plans to use it in the future
Row 1	Yes, qualitative and quantitative	<Not Applicable>	<Not Applicable>

C3.2a

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

Climate-related scenario		Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Physical climate scenarios	RCP 8.5	Company-wide	<Not Applicable>	<p>As part of our TCFD assessment, we have evaluated the exposure of our plants to physical risks, covering: acute physical risks, which refers to those that are event-driven, including increased severity of extreme weather events, such as cyclones, hurricanes, or floods and chronic physical risks which refers to longer-term shifts in climate patterns (e.g., sustained higher temperatures) that may cause sea level rise or chronic heat waves.</p> <p>The assessment has been done for each plant of the Group.</p> <p>Our assessment uses three scenarios proposed by the IPCC.</p> <p>High Climate Change Scenario (RCP 8.5): Continuation of business as usual with emissions at current rates. This scenario is expected to result in warming in excess of 4 degrees Celsius by 2100.</p> <p>Moderate Climate Change Scenario (RCP 4.5): Strong mitigation actions to reduce emissions to half of current levels by 2080. This scenario is more likely than not to result in warming in excess of 2 degrees Celsius by 2100.</p> <p>Low Climate Change Scenario (RCP 2.6): Aggressive mitigation actions to halve emissions by 2050. This scenario is likely to result in warming of less than 2 degree Celsius by 2100.</p> <p>Time horizons</p> <p>For physical risks we look at time horizon out to 2050.</p> <p>According the High Climate Change Scenario (RCP 8.5), an example of risks affecting part of our plants could be policy-based water restrictions due to the exacerbation of water scarcity.</p> <p>Water scarcity already affects every continent and climate change will amplify the already complex relationship between business development and water demand. Water use has been growing globally at more than twice the rate of population increase in the last century, and an increasing number of regions are reaching the limit at which water services can be sustainably delivered.</p> <p>The water-related outcomes of our scenario analysis are affecting the Group business strategy.</p> <p>To address local water issues, the Group defined water targets and planned specific local action plan that fit the individual water contexts.</p> <p>Water Targets. Within 2030, the Group will reduce the water consumption per ton of cement by 20%, comparing 2019. In the water stressed area the goal is to reduce the consumption per ton of cement by 25%. The targets have been deployed per single plant. The targets are monitored at site level, on a monthly basis, and consolidated at Country/Region and Group level on a quarterly basis.</p>
Transition scenarios	IEA NZE 2050	Company-wide	<Not Applicable>	<p>As part of our TCFD assessment, we conducted an assessment on transition risks, in particular of climate-related carbon pricing (policy) risk based on GHG and operational data of each plant of the Group, along with other climate related transition risks (market, reputation and technology using quantitative and qualitative comparisons.</p> <p>For example, for the policy risk, our assessment uses four scenarios proposed by IEA: Net-Zero emissions by 2050, High Carbon Price Scenario, Moderate Carbon Price Scenario, Low Price Scenario.</p> <p>Net-Zero emissions by 2050: it assumes that advanced economies will reach net zero in advance of 2050 and sets out an emissions trajectory consistent with a 50% chance of limiting the global temperature rise to 1.5°C without a temperature overshoot</p> <p>Time horizons: For transition risk we look at time horizon out to 2050.</p> <p>CO2 price (USD / tCO2):</p> <p>Advanced economies: 2030: 130, 2050: 250;</p> <p>Selected emerging markets (i.e. China): 2030: 90, 2050: 200</p> <p>Other emerging markets: 2030: 15, 2050: 55</p> <p>The analysis was either qualitative and quantitative.</p> <p>For the cement sector, the more CO2 emissions are constrained by regulatory framework and the more relevant are transitional risks, in the most constrained scenarios the need for breakthrough technology (i.e. carbon capture usage and storage) becomes fundamental. Because of the scenario analysis, in October 2022, we decided to install a pilot carbon and capture unit at the Aalborg plant to collect information about CCS technology. As of July 2023, the pilot carbon capture is currently working and Cementir is evaluating the results of the testing activity. If successful, the project could be scaled up with the potential to capture 400,000 tons of CO2 per year by 2030. Moreover, in 2022, Cementir established an interdisciplinary working group responsible for, among with other areas: understanding of current and future legislation on CO2 infrastructure and storage, investigating the possible subsidy schemes and partners for future funding, assessing the best solution for the Group.</p>

C3.2b

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

Row 1

Focal questions

As defined by the TCFD guidelines, scenario analysis needs crisp, concise, and focused questioning on the strategy decisions and actions to which the scenario analysis is meant to contribute.

We start with broad questions such as: How might our identified climate-related risks and opportunities plausibly affect cement sector, our plants and therefore the Group at time horizon out to 2050? What should we do? And when?

These broad questions have been further refined to focus on the relevant decisions and uncertainties around the climate-related risks and opportunity of most concern to the company.

The following supplemental questions has driven our analysis:

- Will CO2 regulations can shape our future performance?
- Will cement replaced by alternative material?
- According to the location of our plants, which kind of physical risk will affect our operations?

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

As a Cement Company with two plants located in Europe (Belgium and Denmark), CO2 regulations (ETS and Taxonomy) is a force that is currently affecting our performance and will shape our future performance.

The financial implications of ETS depend on the CO2 emitted by the plant and the market price for allowances. Different scenarios have been simulated assuming different CO2 prices and changes on ETS rules due to the introduction of CBAM. Among the assumptions used for the definition of the Industrial Plan 2023-2025, an average yearly CO2 shortage of 300,000 tons is expected. 300,000 tons is the sum of shortages expected for our two European plants. The potential financial impact for Cementir could be around 24 million € of additional yearly cost, assuming a CO2 price of 80 EUR (300.000 x 80).

Cement is the main component for concrete and the concrete is the second-most-used substance in the world after water and is the most widely used building material. As of July 2023, we did not see a real substitute product for concrete and therefore for cement. However, according to our scenario analysis, the more CO2 emissions are constrained by regulatory frameworks and the more relevant transitional risks are, in the most constrained scenarios the need for breakthrough technology (i.e. carbon capture usage and storage) becomes essential. In the long term, the installation of carbon capture and storage will be essential to comply with CO2 regulations. For this reason, in October 2022, we decided to install a pilot carbon and capture unit at the Aalborg plant to collect information about CCS technology. As of July 2023, the pilot carbon capture is currently working and Cementir is evaluating the results of the testing activity. If successful, the project could be scaled up with the potential to capture 400,000 tons of CO2 per year by 2030.

Water scarcity already affects every continent and according our scenario analysis climate change will amplify the already complex relationship between business development and water demand. Countries where the Group is located will have to tackle the problems presented by water stress asking to the companies to implement solution for minimizing the impact on water management for the local community. So, an outcome of our scenario analysis is therefore the tightening of policy-based water restrictions due to the exacerbation of water scarcity. To address this issues, the Group defined water targets and planned specific local action plan that fit the individual water contexts. Within 2030, the Group will reduce the water consumption per ton of cement by 20%, comparing 2019. In the water stressed area the goal is to reduce the consumption per ton of cement by 25%. The targets have been deployed per single plant. The targets are monitored at site level, on a monthly basis, and consolidated at Country/Region and Group level on a quarterly basis.

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	<p>Situation: Most climate experts agree that the escalating climate crisis is the defining issue this lifetime and that the world must take urgent action to cut CO₂ emissions and we cannot deny that cement manufacturing is a process that makes intensive use of thermal energy, releasing both direct and indirect CO₂ emissions into the atmosphere. Climate action is at the heart of the European Green Deal and EU Taxonomy, an ambitious European package of measures for cutting greenhouse gas emissions. Climate change is thus reshaping the cement sector.</p> <p>Task: Cementir must develop product solution (i.e. new low carbon cement) to cut greenhouse emissions.</p> <p>Action: Cementir developed FUTURECEM, a low carbon cement with a carbon footprint that is up to 30 percent lower compared to traditional Portland cement. FUTURECEM® technology is fully acknowledged as a solution for clinker ratio reduction in the roadmap for "Low Carbon transition in the cement industry" by International Energy Agency - 2018. From 2014-2019, Cementir participated, together with researcher institutions and a range of stakeholders and customers from the construction industry, in the Danish project Green Concrete II with the aim of testing FUTURECEM® in a wide range of actual ready-mix concrete applications. In March 2020, Bureau Veritas certified the compliance of FUTURECEM® with the requirements in cement standard (EN 197-1:2011)</p> <p>Results: On January 2021, Cementir started the distribution of FUTURECEM in Denmark and in 2022, the distribution in France is started. In 2021/2022 period, the roll-out of FUTURECEM occurred as planned and by 2030, FUTURECEM is expected to reach around 51% of total volumes of grey cement sold in Europe.</p> <p>As reported in C2.4a, in the 2023-2025 period, the replacement of more than 1 million ton of the current grey portland cement with the production of 1 million ton of FUTURECEM could reduce the CO₂ emission of our European plant of about 231,000 ton.</p>
Supply chain and/or value chain	Yes	<p>Situation: For our customers that produce ready-mix concrete, water is an essential raw material. Water combined with cement and aggregates produces concrete. For our customers located in water stress area, as central Europe (i.e., Belgium), is becoming relevant to have supplier of cement and aggregates able to guarantee a sustainable use of water to obtain public works contracts. Governments in central Europe (i.e., Benelux area and Netherlands) recognized the importance of label as Concrete Sustainability Council (CSC) certification in the procedures for the award of public works contracts.</p> <p>Task: To obtain the CSC supplier certificate, the cement and aggregates plants must meet several requirements to demonstrate sustainable practices in "water management" and "energy and climate". Among other, to obtain the certification, cement and aggregates plants must demonstrate the reliability of their plan for reducing their environmental impacts, by reducing for example water consumption and co₂ emission in the short, medium and long term.</p> <p>Action and Results: In 2019, the plants located in Belgium, a high-stress area, committed the CSC Certification System to meet the new requirements of the Customers and secure the sales related to public works contracts. Between 2020 and 2021 all of our cement and aggregates plants located in Belgium obtained the CSC Certification. In this way, our customers that produce ready-mix concrete can certify the sustainable practices applied by their supply chain in the procedures for the award of public works contracts. Therefore, our Belgian operations secured sales related to public works contracts. Without CSC certification, our Belgian operations could have lost this type of sales.</p>
Investment in R&D	Yes	<p>Situation: Most climate experts agree that the escalating climate crisis is the defining issue this lifetime and that the world must take urgent action to cut CO₂ emissions and we cannot deny that cement manufacturing is a process that makes intensive use of thermal energy, releasing both direct and indirect CO₂ emissions into the atmosphere. Climate action is at the heart of the European Green Deal and EU Taxonomy, an ambitious European package of measures for cutting greenhouse gas emissions. Climate change is thus reshaping the cement sector.</p> <p>For this reason, in the last years, Cementir focused its R&D on low carbon products (FUTURECEM®, as described in "C.3.3 Products and services") or other project able to reduce CO₂ emissions of the production process.</p> <p>Task: develop project in order to replace fossil fuels with alternative fuels for reducing the CO₂ emission related to the combustion of fuels for producing clinker. Cement production is a thermal energy intensive process, which requires heating raw materials up to 1450°C and cooling it down. Limestone and clay are heated to approximately 1,450 degrees Celsius in rotary kiln in order to produce clinker, semi-finished product.</p> <p>Action: following the feasibility study for addressing an opportunity for conversion from fossil fuels (i.e. petcoke or coal) to natural gas, Cementir planned the utilization of natural gas in Aalborg, our Danish plant. The switching to natural gas, a fossil fuel with emissions lower than petcoke (estimated reduction of 20% of CO₂), is a transitional solution for Cementir's path to net-zero emissions.</p> <p>Results: As part of this project, Aalborg plant has entered into an agreement with the state gas distribution company, Evida, to connect the plant to the gas distribution grid on 2023. Following the implementation of the investment, a reduction of 20% of CO₂ is estimated for the Aalborg plant.</p>
Operations	Yes	<p>Situation: Climate action is at the heart of the European Green Deal and EU Taxonomy, an ambitious European package of measures for cutting greenhouse gas emissions. Climate change is thus reshaping the cement sector. Regulatory framework for CO₂ are tightening in Europe and in other part of the world. As reported in 2.3a, the potential financial impact related to the regulatory framework for CO₂ in Europe could be around 40 million € of additional yearly cost starting from 2022.</p> <p>Task: For each plant, Cementir must develop a 10-year roadmap for the CO₂ reduction aligned with the SBTi guidelines.</p> <p>Action: Cementir defined a 10 roadmap to reduce its scope 1 and 2 emissions. In parallel, it engaged with SBTi to complete the formal target submission letter to assess the alignment of its CO₂ targets against a well below 2°C scenario. Specific targets for CO₂ emissions, alternative fuels and clinker ratio have been established in order to accomplish the 2030 goals. Such targets have been deployed in every single plant and per year and were included in the Industrial Plan 2021-2023 and in the Industrial Plan 2022 - 2024 and in our employee short-term incentive system. Monetary incentives have been defined for the management of climate-related issues.</p> <p>Results: In July 2021, the Science-Based Targets initiative (SBTi) validated Cementir's targets to reduce its emissions. Cementir commits to reduce scope 1 and scope 2 GHG emissions 25% per ton of cementitious products by 2030 from a 2020 base year. The targets validated by SBTi are the targets deployed in every single plant and per year and included in the Industrial Plan 2022-2024 and in our employee short-term incentive system.</p>

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	Capital allocation	<p>Situation: Climate action is at the heart of the European Green Deal and EU Taxonomy, an ambitious European package of measures for cutting greenhouse gas emissions. Climate change is thus reshaping the cement sector. Regulatory framework for CO2 is tightening Europe and in other part of the world. In Europe the CO2 price evolution in the EU ETS is affecting the company cost structure and is affecting financial evaluation and related investment decisions. Due to the CO2 price, companies are planning investments once not financially convenient.</p> <p>Task: Cementir must prepare a 2030 roadmap for the CO2 reduction in order to reduce the financial impact related to CO2 regulations. As reported in 2.3a, the potential financial impact related to the regulatory framework for CO2 in Europe could be around 24 million € of additional yearly cost starting from 2022.</p> <p>Action: In the 2030 Roadmap, the Group planned the main investment needed until 2030, out of which 86 million declared in the Industrial Plan 2023-2025, approved by the Cementir Board of Director in February 2022.</p> <p>The Roadmap describes the main investments needed to support the 2030 targets. To foster the transition of the Group to a low carbon economy, decisions on investments are driven by an internal carbon price (in 2022, €80 per ton has been applied). Cementir also applies an internal carbon price to navigate GHG regulations such as the EU ETS. For the plants located in the EU, we run various scenarios with different prices to anticipate the CO2 cost the Group will be exposed to until 2030.</p> <p>The regulatory framework for CO2 (i.e. EU ETS) is affecting the financial evaluation of the business case prepared to evaluate any investment. For example, following the feasibility study for addressing an opportunity for conversion from fossil fuels (i.e. petcoke or coal) to natural gas, Cementir planned the utilization of natural gas in Aalborg, our Danish plant. The switching to natural gas, a fossil fuel with emissions lower than petcoke (estimated reduction of 20% of CO₂), is a transitional solution for Cementir's path to net-zero emissions. Due to the reduction in CO2 emissions, Cementir will have to buy a minor number of CO2 quotas in EU ETS. This reduction in the CO2 quotas led to a positive financial impact that affect positively the business case evaluation (due to natural gas combustion, Cementir will buy less CO2 quotas).</p> <p>Results: Without the regulatory framework for CO2, the mentioned investment will not have a positive NPV (net present value) and Cementir will not probably implemented it. Therefore, the capital expenditure would be allocated in a different way. As part of this project, Aalborg plant has entered into an agreement with the state gas distribution company, Evida, to connect the plant to the gas distribution grid on 2023. Following the implementation of the investment, a reduction of 20% of CO2 is estimated for the Aalborg plant.</p>

C3.5

(C3.5) In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's climate transition?

	Identification of spending/revenue that is aligned with your organization's climate transition	Indicate the level at which you identify the alignment of your spending/revenue with a sustainable finance taxonomy
Row 1	Yes, we identify alignment with a sustainable finance taxonomy	At both the company and activity level

C3.5a

(C3.5a) Quantify the percentage share of your spending/revenue that is aligned with your organization's climate transition.

Financial Metric

Revenue/Turnover

Type of alignment being reported for this financial metric

Alignment with a sustainable finance taxonomy

Taxonomy under which information is being reported

EU Taxonomy for Sustainable Activities

Objective under which alignment is being reported

Total across all objectives

Amount of selected financial metric that is aligned in the reporting year (unit currency as selected in C0.4)

210363964

Percentage share of selected financial metric aligned in the reporting year (%)

12.2

Percentage share of selected financial metric planned to align in 2025 (%)

22

Percentage share of selected financial metric planned to align in 2030 (%)

31.29

Describe the methodology used to identify spending/revenue that is aligned

We have assessed the alignment of the activities performed by the Group with the EU Taxonomy. The 12.2 figure disclosed represents the proportion of our total turnover associated with the substantial contribution of our cement production and heat recovery activities to climate change mitigation and climate change adaptation in the reporting year.

We reported percentage of turnover compliant with the technical screening criteria set out within the Climate Delegated Act (Annexes I and II) of EU Taxonomy.

Please be aware that, in 2022, the turnover eligible according to the descriptions of eligible activities provided by the Climate Delegated Act (Annexes I and II) was 31.29%.

So 31.29% is also the maximum amount of turnover theoretically aligned with the technical screening criteria set out within the Climate Delegated Act (Annexes I and II) of EU Taxonomy.

As part of our net-zero commitment, within 2030, the Group will reduce the CO₂ per ton of grey cement to 460 kg, which is below the limits required by the European Taxonomy. For this reason, we estimated the percentage of 2030 as 31.29.

C3.5b

(C3.5b) Quantify the percentage share of your spending/revenue that was associated with eligible and aligned activities under the sustainable finance taxonomy in the reporting year.

Economic activity

Manufacture of cement

Taxonomy under which information is being reported

EU Taxonomy for Sustainable Activities

Taxonomy Alignment

Taxonomy-aligned

Financial metric(s)

Turnover

Taxonomy-aligned turnover from this activity in the reporting year (unit currency as selected in C0.4)

210363964

Taxonomy-aligned turnover from this activity as % of total turnover in the reporting year

12.2

Taxonomy-aligned turnover from this activity that substantially contributed to climate change mitigation as a % of total turnover in the reporting year

0.49

Taxonomy-aligned turnover from this activity that substantially contributed to climate change adaptation as a % of total turnover in the reporting year

11.71

Taxonomy-eligible but not aligned turnover from this activity in the reporting year (unit currency as selected in C0.4)

<Not Applicable>

Taxonomy-eligible but not aligned turnover from this activity as % of total turnover in the reporting year

<Not Applicable>

Taxonomy-aligned CAPEX from this activity in the reporting year (unit currency as selected in C0.4)

<Not Applicable>

Taxonomy-aligned CAPEX from this activity as % of total CAPEX in the reporting year

<Not Applicable>

Taxonomy-aligned CAPEX from this activity that substantially contributed to climate change mitigation as a % of total CAPEX in the reporting year

<Not Applicable>

Taxonomy-aligned CAPEX from this activity that substantially contributed to climate change adaptation as a % of total CAPEX in the reporting year

<Not Applicable>

Taxonomy-eligible but not aligned CAPEX associated with this activity in the reporting year (unit currency as selected in C0.4)

<Not Applicable>

Taxonomy-eligible but not aligned CAPEX associated with this activity as % of total CAPEX in the reporting year

<Not Applicable>

Taxonomy-aligned OPEX from this activity in the reporting year (unit currency as selected in C0.4)

<Not Applicable>

Taxonomy-aligned OPEX from this activity as % of total OPEX in the reporting year

<Not Applicable>

Taxonomy-aligned OPEX from this activity that substantially contributed to climate change mitigation as a % of total OPEX in the reporting year

<Not Applicable>

Taxonomy-aligned OPEX from this activity that substantially contributed to climate change adaptation as a % of total OPEX in the reporting year

<Not Applicable>

Taxonomy-eligible but not aligned OPEX associated with this activity in the reporting year (unit currency as selected in C0.4)

<Not Applicable>

Taxonomy-eligible but not aligned OPEX associated with this activity as % total OPEX in the reporting year

<Not Applicable>

Type(s) of substantial contribution

Transitional activity

Calculation methodology and supporting information

The Cementir Group identified Taxonomy-aligned economic activities for three legal entities within the scope of eligibility: • Compagnie des Ciments Belges S.A. for activity 3.7: Manufacture of cement; • Cimentas A.S. limited to the operations taking place in Trakya's plant for activity 3.7: Manufacture of cement; • Aalborg Portland A/S limited to activity 4.25 Production of heat/cool using waste heat.

For such activities Cementir Group was able to meet all of the respective technical screening criteria required to be considered aligned according to EU Taxonomy Regulation for at least one of the two climate objectives covered by the Delegated Regulation EU/2021/2139. With special regard to activity 3.7: Manufacture of cement, the Group's core business, alignment has been identified limitedly to two legal entities because of the ambitious emissions thresholds set out by the Climate Delegated Act for respecting the criteria of Substantial Contribution and Do Not Significant Harm for the objective of Climate Change Mitigation. As of 2022, Compagnie des Ciments Belges and Trakya's plants respect such limitations on emissions, however the Group has developed an investment plan which will allow GHG emissions at several other plants to be cut in the coming years. Despite representing a residual part of the Cementir Group's business activities, the production of heat recovered from Aalborg's kiln operations has been assessed as aligned with the EU Taxonomy as it is conducted by respecting all of the Do Not Significant Harm criteria concerning the other environmental objectives defined by EU Taxonomy.

Technical screening criteria met

Yes

Details of technical screening criteria analysis

Technical screening criteria set out within the Climate Delegated Act (Annexes I and II) of EU Taxonomy for grey cement.

Do no significant harm requirements met

Yes

Details of do no significant harm analysis

The Cementir Group identified Taxonomy-aligned economic activities for three legal entities within the scope of eligibility: • Compagnie des Ciments Belges S.A. for activity 3.7: Manufacture of cement; • Cimentas A.S. limited to the operations taking place in Trakya's plant for activity 3.7: Manufacture of cement; • Aalborg Portland A/S limited to activity 4.25 Production of heat/cool using waste heat.

For such activities, Cementir Group was able to meet all of the respective technical screening criteria required to be considered aligned according to EU Taxonomy Regulation for at least one of the two climate objectives covered by the Delegated Regulation EU/2021/2139. With special regard to activity 3.7: Manufacture of cement, the Group's core business, alignment has been identified limitedly to two legal entities because of the ambitious emissions thresholds set out by the Climate Delegated Act for respecting the criteria of Substantial Contribution and Do Not Significant Harm for the objective of Climate Change Mitigation. As of 2022, Compagnie des Ciments Belges and Trakya's plants respect such limitations on emissions, however the Group has developed an investment plan which will allow GHG emissions at several other plants to be cut in the coming years. Despite representing a residual part of the Cementir Group's business activities, the production of heat recovered from Aalborg's kiln operations has been assessed as aligned with the EU Taxonomy as it is conducted by respecting all of the Do Not Significant Harm criteria concerning the other environmental objectives defined by EU Taxonomy.

Minimum safeguards compliance requirements met

Yes

Details of minimum safeguards compliance analysis

Compliance with criteria pertaining to minimum safeguards was assessed based directly on Art. 18 of Regulation 852/2020 and on 'Final Report on Minimum Safeguards' published in October 2022 by the Platform on Sustainable Finance (PSF), the advisory body constituted by the European Commission to coordinate the development and the implementation of the EU Taxonomy Regulation. The analysis thus focused on how the Cementir Group respects the OECD Guidelines for Multinational Enterprises (OECD MNE Guidelines) and the UN Guiding Principles on Business and Human Rights (UNGPs), including the principles and rights set out in the eight fundamental conventions identified in the Declaration of the International Labor Organization on Fundamental Principles and Rights at Work and The International Bill of Human Rights.

C3.5c

(C3.5c) Provide any additional contextual and/or verification/assurance information relevant to your organization's taxonomy alignment.

For the reporting period 2022, the European Taxonomy requires non-financial undertakings, as Cementir, to disclose the proportion of Taxonomy-eligible, Taxonomy non-eligible and Taxonomy-aligned economic activities in terms of turnover, capital expenditure (CapEx), operating expenditures (OpEx). In 2022 Annual Report and 2022 Sustainability Report, Cementir disclosed the data according to the EU Taxonomy requirements.

Cementir identified Taxonomy-aligned economic activities for three legal entities within the scope of eligibility:

•Compagnie des Ciments Belges S.A. for activity listed by EU Taxonomy as 3.7: Manufacture of cement. This activity has been identified as aligned to the objective n. 2 of the EU Taxonomy, substantial contribution to climate change adaptation; •Cimentas A.S. limited to the operations taking place in Trakya's plant for activity 3.7: Manufacture of cement. This activity has been identified as aligned to the objective n. 2 of the EU Taxonomy, substantial contribution to climate change adaptation; •Aalborg Portland A/S limited to activity 4.25 Production of heat/cool using waste heat. This activity has been identified as aligned to the objective n.1 of the EU Taxonomy, substantial contribution to climate change mitigation.

The 12.2% of the total turnover come from Taxonomy-aligned products, please see 'EU TAXONOMY', pages 48/59 of Sustainability Report https://www.cementirholding.com/sites/default/files/documenti/2023-05/Sostenibilita%CC%80%202022%20-%20ING_WEB.pdf

C4. Targets and performance

C4.1

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

Absolute target

Intensity target

C4.1a

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

Target reference number

Abs 1

Is this a science-based target?

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

Target ambition

1.5°C aligned

Year target was set

2022

Target coverage

Company-wide

Scope(s)

Scope 3

Scope 2 accounting method

<Not Applicable>

Scope 3 category(ies)

Category 1: Purchased goods and services

Category 2: Capital goods

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

Category 4: Upstream transportation and distribution

Category 5: Waste generated in operations

Category 6: Business travel

Category 9: Downstream transportation and distribution

Base year

2021

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

<Not Applicable>

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

<Not Applicable>

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)

1872699

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)

74577

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)

961588

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)

235156

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)

227

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)

1425

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)

184879

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)

<Not Applicable>

Base year total Scope 3 emissions covered by target (metric tons CO2e)

3330551

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

3330551

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

<Not Applicable>

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

<Not Applicable>

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)

100

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)

100

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

100

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)

100

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)

100

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)

100

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)

100

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)

<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)

<Not Applicable>

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

100

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

100

Target year

2050

Targeted reduction from base year (%)

90

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

333055.1

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

<Not Applicable>

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

<Not Applicable>

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)

2096568

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)

90635

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)

997091

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)
305081

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)
139

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)
3003

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)
175291

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)
3667808

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)
3667808

Does this target cover any land-related emissions?
No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]
-11.2512914529758

Target status in reporting year
New

Please explain target coverage and identify any exclusions

Cementir is committed to developing a business model in line with the sustainability strategic goals and the CO2 emission reduction targets judged by the Science Based Targets initiative (SBTi) to be consistent with a 1.5°C world .

As a first step, in 2020, Cementir defined a roadmap up to 2030 to reduce its Scope 1 and 2 emissions by 25% compared to 2020. This commitment, that did not include any breakthrough technology, was validated by SBTi and judged to be consistent with the “well below 2°C” objective. This target has been reported as INT1.

In 2022, following the formalization of the guidelines for the cement sector by SBTi, Cementir updated its transition plan and set 1.5°C-aligned science-based GHG emission reduction targets for the production of cement.

Concerning the long-term (2050), Cementir is currently commits to reduce:

- Scope 1 & 2 emissions 96.1% per ton of cement by 2050 from a 2021 base year;
- absolute Scope 3 emissions 90% by 2050 from a 2021 base year.

The target for Scope 3 emissions is company-wide, without any exclusions and cover all scope 3 category evaluated as relevant for Cementir according to the inventory analysis.

As of July 2023, the target have been submitted to SBTi. Cementir is waiting for the validation review of SBTi.

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

In the long term, Cementir will embed CO2 emissions in sourcing decisions for all purchase categories and will promote zero-emissions transportation solutions within our network.

In the short term, the actions of Cementir are focused on the following pillars:

- dedicated supplier training webinars to educate suppliers about the importance and benefits from transparently reporting on emissions and climate impact. In one training was held in 2021 and another one in 2022.
- Investigation of CO2 emissions of our suppliers, mainly through collection of CO2 information from them;
- Investigation of CO2 target reduction committed by our suppliers and education of suppliers about the benefits of committing a SBTi CO2 target;
- integration of CO2 requirements into the tendering process;
- introduction of climate-related requirements in the contracts with the suppliers.

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

<Not Applicable>

C4.1b

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

Target reference number

Int 1

Is this a science-based target?

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

Target ambition

Well-below 2°C aligned

Year target was set

2021

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

<Not Applicable>

Intensity metric

Other, please specify (CO2 emissions per ton of cementitious materials)

Base year

2020

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

0.7975

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

0.0659

Intensity figure in base year for Scope 3, Category 1: Purchased goods and services (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 2: Capital goods (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 8: Upstream leased assets (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 10: Processing of sold products (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 11: Use of sold products (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Other (upstream) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for Scope 3, Other (downstream) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for total Scope 3 (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)
0.8634

% of total base year emissions in Scope 1 covered by this Scope 1 intensity figure
99.5

% of total base year emissions in Scope 2 covered by this Scope 2 intensity figure
97.1

% of total base year emissions in Scope 3, Category 1: Purchased goods and services covered by this Scope 3, Category 1: Purchased goods and services intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 2: Capital goods covered by this Scope 3, Category 2: Capital goods intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) covered by this Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution covered by this Scope 3, Category 4: Upstream transportation and distribution intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 5: Waste generated in operations covered by this Scope 3, Category 5: Waste generated in operations intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 6: Business travel covered by this Scope 3, Category 6: Business travel intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 7: Employee commuting covered by this Scope 3, Category 7: Employee commuting intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 8: Upstream leased assets covered by this Scope 3, Category 8: Upstream leased assets intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution covered by this Scope 3, Category 9: Downstream transportation and distribution intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 10: Processing of sold products covered by this Scope 3, Category 10: Processing of sold products intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 11: Use of sold products covered by this Scope 3, Category 11: Use of sold products intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products covered by this Scope 3, Category 12: End-of-life treatment of sold products intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 13: Downstream leased assets covered by this Scope 3, Category 13: Downstream leased assets intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 14: Franchises covered by this Scope 3, Category 14: Franchises intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 15: Investments covered by this Scope 3, Category 15: Investments intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Other (upstream) covered by this Scope 3, Other (upstream) intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Other (downstream) covered by this Scope 3, Other (downstream) intensity figure
<Not Applicable>

% of total base year emissions in Scope 3 (in all Scope 3 categories) covered by this total Scope 3 intensity figure
<Not Applicable>

% of total base year emissions in all selected Scopes covered by this intensity figure
99.4

Target year
2030

Targeted reduction from base year (%)
25.3

Intensity figure in target year for all selected Scopes (metric tons CO2e per unit of activity) [auto-calculated]
0.6449598

% change anticipated in absolute Scope 1+2 emissions

-24.1

% change anticipated in absolute Scope 3 emissions

0

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

0.7605

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

0.0513

Intensity figure in reporting year for Scope 3, Category 1: Purchased goods and services (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 2: Capital goods (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 8: Upstream leased assets (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 10: Processing of sold products (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 11: Use of sold products (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

0.8118

Does this target cover any land-related emissions?

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

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

23.622025616164

Target status in reporting year

Underway

Please explain target coverage and identify any exclusions

Cementir commits to reduce Scope 1 and Scope 2 GHG emissions 25% per ton of cementitious products by 2030 from a 2020 base year. The target boundary includes biogenic emissions and removals from bioenergy feedstocks.

The targets covering greenhouse gas emissions from company operations (Scope 1 and 2) are consistent with reductions required to keep warming to Well-below 2°C. In July 2021, the Science-Based Targets initiative (SBTi) validated the target.

The target, expressed in CO2 emissions per ton of cementitious materials, equate to a reduction from 863.4 kg in 2020 to 644.9kg by 2030. In the target have been included, scope 1 emissions, scope 2 emissions (market-based) and biogenic emissions, as requested by SBTi guidelines.

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

Plan for achieving target

To achieve the mentioned targets, Cementir defined a Roadmap until 2030. Targets for alternative fuels, clinker ratio and CO2 emissions have been established to accomplish the 2030 goals. Such targets have been deployed in every single plant per year, were included in the Industrial Plan 23-25 and in employee short-term incentive

system.

The Roadmap to 2030 is focused on the following pillars.

A) Reduction of clinker content to 64% for grey cement and 78% for white cement. We will reduce the clinker content through:

- the replacement of clinker with alternative decarbonized mineral additives such as fly ash and slag;

- the development of a new low-carbon cement, FUTURECEM, a technology which allows for more than 35% of the energy-intensive clinker in cement to be replaced by limestone and calcined clay.

B) Replacement of fossil fuels with alternative fuels. We will replace fossil fuels with waste-derived fuels and biomass fuels. For grey cement, by 2030, Cementir will use 50% alternative fuel, while for white cement alternative fuels will amount to 13%.

C) Implementation of Carbon Capture and Storage (CCS) technology in Aalborg. Cementir has for several years investigated the potential for implementation of carbon capture at its cement plants. As part of this, the Group is completing/participating in projects, providing knowledge and experience in all relevant aspects for the value-chain from carbon capture to use or transport and storage of CO₂. In October 2022, a pilot CCS unit was established at the Aalborg plant. As of July 2023, the pilot unit is working and the technical department is analyzing the data. The CCS will continue operations until September 2023. If successful, the project could be scaled up with the potential to capture 400,000 tons of CO₂ per year by 2030.

Progress made to the end of 2022

In 2022, the intensity figure, for Scope 1, 2 and biogenic combined, decreased to 811.8 kg. (760.5 kg for Scope 1 and 51.3 kg for Scope2) from 863.4 kg in 2020 (797.5 for Scope1 plus 65.9 for Scope2). We are implementing the Roadmap as planned. Concerning grey cement, the clinker ratio decreased to 80%, from the 82% of 2020 and the alternative fuels increased to 32% from the 28% of 2020. Both actions helped to decrease the scope 1 intensity figure to 760.5 from the 797.5 of 2020.

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

<Not Applicable>

Target reference number

Int 2

Is this a science-based target?

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

Target ambition

1.5°C aligned

Year target was set

2022

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

<Not Applicable>

Intensity metric

Metric tons CO₂e per metric ton of cement

Base year

2021

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

0.772

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

0.064

Intensity figure in base year for Scope 3, Category 1: Purchased goods and services (metric tons CO₂e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 2: Capital goods (metric tons CO₂e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO₂e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO₂e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 5: Waste generated in operations (metric tons CO₂e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 6: Business travel (metric tons CO₂e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 7: Employee commuting (metric tons CO₂e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 8: Upstream leased assets (metric tons CO₂e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO₂e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 10: Processing of sold products (metric tons CO₂e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 11: Use of sold products (metric tons CO₂e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

0.836

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

99.7

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

97.6

% of total base year emissions in Scope 3, Category 1: Purchased goods and services covered by this Scope 3, Category 1: Purchased goods and services intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 2: Capital goods covered by this Scope 3, Category 2: Capital goods intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) covered by this Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution covered by this Scope 3, Category 4: Upstream transportation and distribution intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 5: Waste generated in operations covered by this Scope 3, Category 5: Waste generated in operations intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 6: Business travel covered by this Scope 3, Category 6: Business travel intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 7: Employee commuting covered by this Scope 3, Category 7: Employee commuting intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 8: Upstream leased assets covered by this Scope 3, Category 8: Upstream leased assets intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution covered by this Scope 3, Category 9: Downstream transportation and distribution intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 10: Processing of sold products covered by this Scope 3, Category 10: Processing of sold products intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 11: Use of sold products covered by this Scope 3, Category 11: Use of sold products intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products covered by this Scope 3, Category 12: End-of-life treatment of sold products intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 13: Downstream leased assets covered by this Scope 3, Category 13: Downstream leased assets intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 14: Franchises covered by this Scope 3, Category 14: Franchises intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 15: Investments covered by this Scope 3, Category 15: Investments intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Other (upstream) covered by this Scope 3, Other (upstream) intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Other (downstream) covered by this Scope 3, Other (downstream) intensity figure

<Not Applicable>

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

<Not Applicable>

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

99.5

Target year

2050

Targeted reduction from base year (%)

96.1

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

0.032604

% change anticipated in absolute Scope 1+2 emissions

-95

% change anticipated in absolute Scope 3 emissions

0

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

0.7605

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

0.0513

Intensity figure in reporting year for Scope 3, Category 1: Purchased goods and services (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 2: Capital goods (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 8: Upstream leased assets (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 10: Processing of sold products (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 11: Use of sold products (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

0.8118

Does this target cover any land-related emissions?

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

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

3.01221315515636

Target status in reporting year

New

Please explain target coverage and identify any exclusions

Cementir is committed to developing a business model in line with the sustainability strategic goals and the CO2 emission reduction targets judged by the Science Based Targets initiative (SBTi) to be consistent with a 1.5°C world .

As a first step, in 2020, Cementir defined a roadmap up to 2030 to reduce its Scope 1 and 2 emissions by 25% compared to 2020. This commitment, that did not include any breakthrough technology, was validated by SBTi and judged to be consistent with the "well below 2°C" objective. This target has been reported as INT1.

In 2022, following the formalization of the guidelines for the cement sector by SBTi, Cementir updated its transition plan and set 1.5°C-aligned science-based GHG emission reduction targets for the production of cement.

Concerning the long-term (2050),Cementir is currently commits to reduce Scope 1 & 2 emissions 96.1% per ton of cement by 2050 from a 2021 base year. The target is company-wide, without any exclusions.

The target, expressed in CO2 emissions per ton of cement equivalent, equate to a reduction from 836 kg in 2021 to 33 kg by 2050. In the target have been included, scope 1 emissions, scope 2 emissions (market-based) and biogenic emissions, as requested by SBTi guidelines.

As of July 2023, the target has been submitted to SBTi. Cementir is waiting for the validation review of SBTi.

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

Plan for achieving target

To achieve the mentioned targets, Cementir defined a Roadmap until 2050 with an intermediate step as 2030. Targets for alternative fuels, clinker ratio and CO₂ emissions have been established to accomplish the 2050 goals. Such targets have been deployed in every single plant per year, were included in the Industrial Plan 23-25 and in employee short-term incentive system.

The Roadmap is focused on the following pillars.

A) minimization of clinker content in cement. In the long term, we will reduce the clinker content mainly through the widespread development of FUTURECEM, our low-carbon cement which allows for more than 35% of the energy-intensive clinker in cement to be replaced by limestone and calcined clay

B) Replacement of fossil fuels with biomass, waste-derived fuels, CO₂-free fuels and increasing the efficiency of the kilns

C) Deployment of breakthrough carbon capture and storage/use technologies (CCUS) in all of our plants. Cementir has for several years investigated the potential for implementation of carbon capture at its cement plants. As part of this, the Group is completing/participating in projects, providing knowledge and experience in all relevant aspects for the value-chain from carbon capture to use or transport and storage of CO₂. In October 2022, a pilot CCS unit was established at the Aalborg plant. As of July 2023, the pilot unit is working and the technical department is analyzing the data. The CCS will continue operations until September 2023. If successful, the project could be scaled up with the potential to capture 400,000 tons of CO₂ per year by 2030.

Progress made to the end of 2022

In 2022, the intensity figure, for Scope 1, 2 and biogenic combined, decreased to 811.8 kg. (760.5 kg for Scope 1 and 51.3 kg for Scope2) from 836 kg in 2021 (772 kg for Scope1 plus 64 kg for Scope2). We are implementing the Roadmap as planned. Concerning grey cement, the clinker ratio decreased to 80%, from the 81% of 2021 and the alternative fuels increased to 32% from the 30% of 2021. Both actions helped to decrease the scope 1 intensity figure to 760.5 from the 772 Kg of 2021.

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

<Not Applicable>

Target reference number

Int 3

Is this a science-based target?

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

Target ambition

1.5°C aligned

Year target was set

2022

Target coverage

Company-wide

Scope(s)

Scope 3

Scope 2 accounting method

<Not Applicable>

Scope 3 category(ies)

Category 1: Purchased goods and services

Intensity metric

Other, please specify (Co2 emissions per ton of purchased clinker and cement)

Base year

2021

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

<Not Applicable>

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

<Not Applicable>

Intensity figure in base year for Scope 3, Category 1: Purchased goods and services (metric tons CO₂e per unit of activity)

0.873

Intensity figure in base year for Scope 3, Category 2: Capital goods (metric tons CO₂e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO₂e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO₂e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 5: Waste generated in operations (metric tons CO₂e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 8: Upstream leased assets (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 10: Processing of sold products (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 11: Use of sold products (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

0.873

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

0.873

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

<Not Applicable>

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

<Not Applicable>

% of total base year emissions in Scope 3, Category 1: Purchased goods and services covered by this Scope 3, Category 1: Purchased goods and services intensity figure

25.78

% of total base year emissions in Scope 3, Category 2: Capital goods covered by this Scope 3, Category 2: Capital goods intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) covered by this Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution covered by this Scope 3, Category 4: Upstream transportation and distribution intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 5: Waste generated in operations covered by this Scope 3, Category 5: Waste generated in operations intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 6: Business travel covered by this Scope 3, Category 6: Business travel intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 7: Employee commuting covered by this Scope 3, Category 7: Employee commuting intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 8: Upstream leased assets covered by this Scope 3, Category 8: Upstream leased assets intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution covered by this Scope 3, Category 9: Downstream transportation and distribution intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 10: Processing of sold products covered by this Scope 3, Category 10: Processing of sold products intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 11: Use of sold products covered by this Scope 3, Category 11: Use of sold products intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products covered by this Scope 3, Category 12: End-of-life treatment of sold products intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 13: Downstream leased assets covered by this Scope 3, Category 13: Downstream leased assets intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 14: Franchises covered by this Scope 3, Category 14: Franchises intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 15: Investments covered by this Scope 3, Category 15: Investments intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Other (upstream) covered by this Scope 3, Other (upstream) intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Other (downstream) covered by this Scope 3, Other (downstream) intensity figure

<Not Applicable>

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

14.5

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

14.5

Target year

2030

Targeted reduction from base year (%)

23

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

0.67221

% change anticipated in absolute Scope 1+2 emissions

0

% change anticipated in absolute Scope 3 emissions

-23

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

<Not Applicable>

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

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 1: Purchased goods and services (metric tons CO2e per unit of activity)

0.876

Intensity figure in reporting year for Scope 3, Category 2: Capital goods (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 8: Upstream leased assets (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 10: Processing of sold products (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 11: Use of sold products (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

0.876

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

0.876

Does this target cover any land-related emissions?

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

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

-1.49409831166891

Target status in reporting year

New

Please explain target coverage and identify any exclusions

The target covers the emissions related to purchased clinker and cement disclosed in the GHG Category 1: Purchased goods and services. Cementir Holding N.V. commits to reduce gross scope 3 GHG emissions from purchased goods and services 23.00% per ton of purchased clinker and cement by 2030 from a 2021 base year. The target is related to the clinker and cement purchased by the Group.

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

The actions of Cementir, toward the implementation of Scope 3 reduction target, will be focused on the following pillars:

- dedicated supplier training webinars to educate suppliers about the importance and benefits from transparently reporting on emissions and climate impact;
- Investigation of CO2 emissions of our suppliers, mainly through collection of CO2 information from them;
- Investigation of CO2 target reduction committed by our suppliers and education of suppliers about the benefits of committing a SBTi CO2 target;
- integration of CO2 requirements into the tendering process,
- introduction of climate-related requirements in the contracts with the suppliers.
- improving products mix purchased with lower CO2.

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

<Not Applicable>

Target reference number

Int 4

Is this a science-based target?

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

Target ambition

1.5°C aligned

Year target was set

2022

Target coverage

Company-wide

Scope(s)

Scope 1
Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

<Not Applicable>

Intensity metric

Metric tons CO2e per metric ton of cement

Base year

2021

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

0.772

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

0.064

Intensity figure in base year for Scope 3, Category 1: Purchased goods and services (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 2: Capital goods (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 8: Upstream leased assets (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 10: Processing of sold products (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 11: Use of sold products (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)

<Not Applicable>

Intensity figure in base year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

0.836

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

99.7

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

97.6

% of total base year emissions in Scope 3, Category 1: Purchased goods and services covered by this Scope 3, Category 1: Purchased goods and services intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 2: Capital goods covered by this Scope 3, Category 2: Capital goods intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) covered by this Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution covered by this Scope 3, Category 4: Upstream transportation and distribution intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 5: Waste generated in operations covered by this Scope 3, Category 5: Waste generated in operations intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 6: Business travel covered by this Scope 3, Category 6: Business travel intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 7: Employee commuting covered by this Scope 3, Category 7: Employee commuting intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 8: Upstream leased assets covered by this Scope 3, Category 8: Upstream leased assets intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution covered by this Scope 3, Category 9: Downstream transportation and distribution intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 10: Processing of sold products covered by this Scope 3, Category 10: Processing of sold products intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 11: Use of sold products covered by this Scope 3, Category 11: Use of sold products intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products covered by this Scope 3, Category 12: End-of-life treatment of sold products intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 13: Downstream leased assets covered by this Scope 3, Category 13: Downstream leased assets intensity figure

<Not Applicable>

% of total base year emissions in Scope 3, Category 14: Franchises covered by this Scope 3, Category 14: Franchises intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Category 15: Investments covered by this Scope 3, Category 15: Investments intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Other (upstream) covered by this Scope 3, Other (upstream) intensity figure
<Not Applicable>

% of total base year emissions in Scope 3, Other (downstream) covered by this Scope 3, Other (downstream) intensity figure
<Not Applicable>

% of total base year emissions in Scope 3 (in all Scope 3 categories) covered by this total Scope 3 intensity figure
<Not Applicable>

% of total base year emissions in all selected Scopes covered by this intensity figure
99.5

Target year
2030

Targeted reduction from base year (%)
29.33

Intensity figure in target year for all selected Scopes (metric tons CO2e per unit of activity) [auto-calculated]
0.5908012

% change anticipated in absolute Scope 1+2 emissions
-22.34

% change anticipated in absolute Scope 3 emissions
0

Intensity figure in reporting year for Scope 1 (metric tons CO2e per unit of activity)
0.7605

Intensity figure in reporting year for Scope 2 (metric tons CO2e per unit of activity)
0.0513

Intensity figure in reporting year for Scope 3, Category 1: Purchased goods and services (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 2: Capital goods (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 8: Upstream leased assets (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 10: Processing of sold products (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 11: Use of sold products (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Other (upstream) (metric tons CO2e per unit of activity)
<Not Applicable>

Intensity figure in reporting year for Scope 3, Other (downstream) (metric tons CO2e per unit of activity)
<Not Applicable>

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

<Not Applicable>

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

0.8118

Does this target cover any land-related emissions?

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

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

9.86954259156244

Target status in reporting year

New

Please explain target coverage and identify any exclusions

Cementir is committed to developing a business model in line with the sustainability strategic goals and the CO2 emission reduction targets judged by the Science Based Targets initiative (SBTi) to be consistent with a 1.5°C world.

As a first step, in 2020, Cementir defined a roadmap up to 2030 to reduce its Scope 1 and 2 emissions by 25% compared to 2020. This commitment, that did not include any breakthrough technology, was validated by SBTi and judged to be consistent with the "well below 2°C" objective. This target has been reported in the 4.1b - INT1. In 2022, following the formalization of the guidelines for the cement sector by SBTi, Cementir updated its transition plan and set 1.5°C-aligned science-based GHG emission reduction targets for the production of cement.

Concerning the near-term (2030), Cementir is currently commits to reduce Scope 1 and Scope 2 GHG emissions 29.33% per ton of cement by 2030 from a 2021 base year. The target is company-wide, without any exclusions.

As of July 2023, the targets (near-term and long-term) have been submitted to SBTi. Cementir is waiting for the validation review of SBTi.

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

Plan for achieving target

To achieve the mentioned targets, Cementir defined a Roadmap until 2030. Targets for alternative fuels, clinker ratio and CO2 emissions have been established to accomplish the 2030 goals. Such targets have been deployed in every single plant per year, were included in the Industrial Plan 23-25 and in employee short-term incentive system.

The Roadmap to 2030 is focused on the following pillars.

A) Reduction of clinker content to 64% for grey cement and 78% for white cement. We will reduce the clinker content through:

- the replacement of clinker with alternative decarbonized mineral additives such as fly ash and slag;
- the development of a new low-carbon cement, FUTURECEM, a technology which allows for more than 35% of the energy-intensive clinker in cement to be replaced by limestone and calcined clay.

B) Replacement of fossil fuels with alternative fuels. We will replace fossil fuels with waste-derived fuels and biomass fuels. For grey cement, by 2030, Cementir will use 50% alternative fuel, while for white cement alternative fuels will amount to 13%.

C) Implementation of Carbon Capture and Storage (CCS) technology in Aalborg. Cementir has for several years investigated the potential for implementation of carbon capture at its cement plants. As part of this, the Group is completing/participating in projects, providing knowledge and experience in all relevant aspects for the value-chain from carbon capture to use or transport and storage of CO2. In October 2022, a pilot CCS unit was established at the Aalborg plant. As of July 2023, the pilot unit is working and the technical department is analyzing the data. The CCS will continue operations until September 2023. If successful, the project could be scaled up with the potential to capture 400,000 tons of CO2 per year by 2030.

Progress made to the end of 2022

In 2022, the intensity figure, for Scope 1, 2 and biogenic combined, decreased to 811.8 kg. (760.5 kg for Scope 1 and 51.3 kg for Scope2) from 836 kg in 2021 (772 kg for Scope1 plus 64 kg for Scope2). We are implementing the Roadmap as planned. Concerning grey cement, the clinker ratio decreased to 80%, from the 81% of 2021 and the alternative fuels increased to 32% from the 30% of 2021. Both actions helped to decrease the scope 1 intensity figure to 760.5 from the 772 Kg of 2021.

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

<Not Applicable>

C4.2

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

Net-zero target(s)

Other climate-related target(s)

C4.2b

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

Target reference number

Oth 1

Year target was set

2019

Target coverage

Company-wide

Target type: absolute or intensity

Intensity

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

Fossil fuel reduction target	Percentage of fossil fuels in the fuel mix
------------------------------	--

Target denominator (intensity targets only)

GJ

Base year

1990

Figure or percentage in base year

100

Target year

2030

Figure or percentage in target year

50

Figure or percentage in reporting year

68

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

64

Target status in reporting year

Underway

Is this target part of an emissions target?

Yes. As mentioned in C4.1b (int 1), Cementir commits to reduce scope 1 and scope 2 GHG emissions 25% per ton of cementitious products by 2030 from a 2020 base year.

To achieve the mentioned targets, Cementir defined a roadmap until 2030. Specific targets for alternative fuels, clinker ratio and CO₂ emissions have been established in order to accomplish the 2030 goals. Such targets have been deployed in every single plant and per year and were included in the Industrial Plan 2023-2025 and in our employee short-term incentive system.

Concerning fossil fuels, by 2030, the Group will reduce the proportion of fossil fuels in the fuel mix to 50% for producing grey cement and 87% for white cement. The target is company-wide deployed between grey and white cement.

Is this target part of an overarching initiative?

Science Based targets initiative - other

Please explain target coverage and identify any exclusions

The target is company-wide deployed between grey and white cement.

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

As mentioned in C4.1b (int 1), Cementir commits to reduce scope 1 and scope 2 GHG emissions 25% per ton of cementitious products by 2030 from a 2020 base year.

To achieve the mentioned targets, Cementir defined a roadmap until 2030. Specific targets for alternative fuels, clinker ratio and CO₂ emissions have been established in order to accomplish the 2030 goals. Such targets have been deployed in every single plant per year, were included in the Industrial Plan 23-25 and in employee short-term incentive system.

Concerning fossil fuels, we will replace them with waste-derived fuels and biomass fuels. For grey cement, by 2030, Cementir will reduce the proportion of fossil fuels in the fuel mix to 50% while for white cement the proportion of fossil fuels in the fuel mix will be reduced to 87%.

List the actions which contributed most to achieving this target

<Not Applicable>

Target reference number

Oth 2

Year target was set

2019

Target coverage

Company-wide

Target type: absolute or intensity

Intensity

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

Fossil fuel reduction target	Percentage of fossil fuels in the fuel mix
------------------------------	--

Target denominator (intensity targets only)

GJ

Base year

1990

Figure or percentage in base year

100

Target year

2030

Figure or percentage in target year

87

Figure or percentage in reporting year

98

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

15.3846153846154

Target status in reporting year

Underway

Is this target part of an emissions target?

Yes. As mentioned in C4.1b (int 1), Cementir commits to reduce scope 1 and scope 2 GHG emissions 25% per ton of cementitious products by 2030 from a 2020 base year.

To achieve the mentioned targets, Cementir defined a roadmap until 2030. Specific targets for alternative fuels, clinker ratio and CO₂ emissions have been established in order to accomplish the 2030 goals. Such targets have been deployed in every single plant and per year and were included in the Industrial Plan 2023-2025 and in our employee short-term incentive system.

Concerning fossil fuels, by 2030, the Group will reduce the proportion of fossil fuels in the fuel mix to 50% for producing grey cement and 87% for white cement. The target is company-wide deployed between grey and white cement.

Is this target part of an overarching initiative?

Science Based targets initiative - other

Please explain target coverage and identify any exclusions

The target is company-wide deployed between grey and white cement.

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

As mentioned in C4.1b (int 1), Cementir commits to reduce scope 1 and scope 2 GHG emissions 25% per ton of cementitious products by 2030 from a 2020 base year.

To achieve the mentioned targets, Cementir defined a roadmap until 2030. Specific targets for alternative fuels, clinker ratio and CO₂ emissions have been established in order to accomplish the 2030 goals. Such targets have been deployed in every single plant per year, were included in the Industrial Plan 23-25 and in employee short-term incentive system.

Concerning fossil fuels, we will replace them with waste-derived fuels and biomass fuels. For grey cement, by 2030, Cementir will reduce the proportion of fossil fuels in the fuel mix to 50% while for white cement the proportion of fossil fuels in the fuel mix will be reduced to 87%.

List the actions which contributed most to achieving this target

<Not Applicable>

C4.2c

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

Target reference number

NZ1

Target coverage

Company-wide

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

Abs1

Int2

Int3

Int4

Target year for achieving net zero

2050

Is this a science-based target?

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

Please explain target coverage and identify any exclusions

Cementir is committed to developing a business model in line with the sustainability strategic goals and the CO2 emission reduction targets judged by the Science Based Targets initiative (SBTi) to be consistent with a 1.5°C world .

As a first step, in 2020, Cementir defined a roadmap up to 2030 to reduce its Scope 1 and 2 emissions by 25% compared to 2020. This commitment, that did not include any breakthrough technology, was validated by SBTi and judged to be consistent with the “well below 2°C” objective. This target has been reported in the 4.1b - INT1 In 2022, following the formalization of the guidelines for the cement sector by SBTi, Cementir updated its transition plan and set 1.5°C-aligned science-based GHG emission reduction targets for the production of cement.

Concerning the long-term (2050),Cementir is currently commits to reduce:

- Scope 1 & 2 emissions 96.1% per ton of cement by 2050 from a 2021 base year (see 4.1b - INT2);
- absolute Scope 3 emissions 90% by 2050 from a 2021 base year(see 4.1a - ABS1)

The main pillar that will support the strategy for the 2050 are:

2050 ambition: Scope 1 emissions

Cementir will maximize existing technology to reduce Scope 1 emissions according to a net-zero pathway endorsed by the SBTi and EU. This will require:

- Replacing fossil fuels with biomass, waste-derived fuels, CO2-free fuels and increasing the efficiency of the kilns.
- Widespread development of FUTURECEM® to minimize clinker content in cement.
- Deployment of breakthrough carbon capture and storage technologies.

2050 ambition: Scope 2 emissions

After 2030, Cementir will eliminate Scope 2 emissions by expanding renewable energy sources. The Group will use offsite opportunities, by setting up power purchase agreements and onsite opportunities, and by installing wind and solar solutions for electricity on land that it owns.

2050 ambition: Scope 3 emissions

Cementir will reduce Scope 3 emissions according to a net-zero pathway. This will require the embedding of CO2 emissions in sourcing decisions for all purchase categories and the promotion of zero-emissions transportation solutions within our network.

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

Yes

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

The Group is committed to reduce Scope 1, 2 and 3 emissions to zero or to a residual level that is consistent with reaching net-zero emissions at the global level in eligible 1.5°C scenarios and to neutralize any residual emissions at the net-zero target date.

In cement production, most of the Scope 1 emissions result from the chemical reaction that occurs when the limestone calcinates into clinker in the kiln. This decarbonation process is our largest source of CO2 emissions, accounting for 70% of our total scope 1 emissions.

Due to the peculiarity of cement production, following the implementation of the various action mentioned (i.e. Deployment of breakthrough carbon capture and storage technologies, Widespread development of FUTURECEM® to minimize clinker content in cement, replacing of fossil fuels with CO2-free fuels), a fractions (from 0 to 5%) of unavoidable emissions could still remain.

For this reason, any unavoidable emissions will be neutralized using removals within or beyond Cementir value chain. For example, Cementir started to investigate REDD+ projects that can support countries in removing GHG from the atmosphere. However, as of July 2023, Cementir did not take any decision concerning REDD+ or other similar carbon offset project.

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

Any unavoidable emissions will be neutralized using removals within or beyond Cementir value chain. For example, Cementir started to investigate REDD+ projects that can support countries in removing GHG from the atmosphere. However, as of July 2023, Cementir did not take any decision concerning REDD+ or other similar carbon offset project.

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	1	400000
To be implemented*	2	257400
Implementation commenced*	2	142333
Implemented*	1	21156
Not to be implemented	0	0

C4.3b

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

Initiative category & Initiative type

Energy efficiency in production processes	Smart control system
---	----------------------

Estimated annual CO2e savings (metric tonnes CO2e)

21156

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

Scope 1

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

988708

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

403678

Payback period

1-3 years

Estimated lifetime of the initiative

6-10 years

Comment

We reported the data related to several project for improving the energy efficiency of production process of our plants. (Improving the Automation of Raw Material Crushing, Stocking and Feeding System).

C4.3c

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

Method	Comment
Internal price on carbon	<p>For example, in 2022, we apply an internal carbon price of 80 EUR to navigate GHG regulations such as the EU ETS.</p> <p>Situation: Cement production is a thermal energy intensive process, which requires heating raw materials up to 1,450°C and cooling it down. Limestone and clay are heated to approximately 1,450 degrees Celsius in rotary kiln in order to produce clinker, semi-finished product. For reaching the mentioned temperature (1,450 degrees) is usually used petcoke, a fossil fuel with high energy content and high CO2 emission.</p> <p>Task: develop project in order to replace petcoke with alternative fuels for reducing the CO2 emission related to the combustion of fuels for producing clinker.</p> <p>Action: following the feasibility study for addressing an opportunity for conversion from petcoke to natural gas, Cementir planned the utilization of natural gas in the Aalborg plant. The switching to natural gas, a fossil fuel with emissions lower than petcoke (estimated reduction of 20% of CO₂), is a transitional solution for Cementir's path to net-zero emissions.</p> <p>Results: Due to the reduction in CO2 emissions, Cementir will have to buy a minor number of CO2 quotas in EU ETS. This reduction in the CO2 quotas led to a positive financial impact that affect positively the business case evaluation (due to natural gas combustion, cementir will buy less CO2 quotas). Without the application of the carbon price, the mentioned investment will not have a positive NPV (net present value) and Cementir will not probably implemented it. Therefore, the capital expenditure would be allocated in a different way. As part of this strategy, Aalborg Portland (the Danish legal entity of Cementir) has entered into an agreement with the Danish gas distribution company, Evida, to connect the Aalborg plant to the gas distribution grid on 2023. Following the implementation of the investment, a reduction of 20% of CO2 is estimated for the Aalborg plant.</p>
Partnering with governments on technology development	<p>Cementir actively participates in global and national industry policy discussions on issues related to Climate Change, Sustainable Infrastructure, Circular Economy, Alternative Fuels, and Waste Management Frameworks, among others.</p> <p>For example, since November 2019, the Group has been involved in the most ambitious CO2 reduction project ever sponsored by a national government. In autumn 2019 the Danish government made a broad political agreement with all political parties, including one at parliamentary level about a binding climate law with the target of reducing Danish CO2 emissions by 70% by 2030 compared with the 1990 baseline. The Managing Director of Cementir's subsidiary Aalborg Portland is leading the climate partnership for the Danish energy intensive industry. The working group will provide the Danish government with the technical forecast of all potential CO2 reduction achievable and will define the prerequisites (policy, research, innovation, subsidies, etc.) for such reductions.</p> <p>The key policy recommendations are in progress. The climate partnership is working on:</p> <ul style="list-style-type: none"> - Developing a Danish national strategy for carbon capture and subsidy a lighthouse project; - Liberalizing the market for heat recovery/district heating; - Ensuring affordable sustainable fuels (like biogas); - Supporting a market request for sustainable products (public procurement, building regulation etc.). <p>As a part of this partnership with the danish government, in July 2022, Aalborg Portland promised CO2 reductions of 1.6 million tonnes of CO2 within 2030. Aalborg Portland put a cap on the total amount of CO2 emitted by its plant. Aalborg Portland committed to emit 600,000 tonnes in 2030 which is 1.6 million tonnes less than 2021. This is an absolute target and it is equal to a reduction of 73% comparing to the CO2 emitted by Aalborg Portland in 2021.</p>
Internal incentives/recognition programs	<p>We provide monetary incentive to the Top Management and Middle Management for the achievement of climate-related targets. For example, as already mentioned in section C1.3a, the Head of Regions receive a monetary incentives, if their Regions or BUs accomplish targets related to CO2 emissions reductions, clinker/cement substitution, use of alternative fuels. Cementir set 2030 targets. Each target has been deployed per single plant and years. The interim targets have been included in the 2023-2025 Industrial plan approved by the BoD.</p>
Compliance with regulatory requirements/standards	<p>The Group develops different scenarios analysis to quantify the potential impacts of regulatory requirements / standards, as already reported in the section C2. Risks and opportunities. For example, as described in the C2.3a, Among the areas where Cementir operates, Europe is the only major region with a regulatory framework for CO2 quotes.</p> <p>Among the assumptions used for the definition of the Industrial Plan 2023-2025, an average yearly CO2 shortage of 300,000 tons is expected. The potential financial impact for Cementir could be around 24 million € of additional yearly cost, assuming a CO2 price of 80 EUR (300,000 x 80). 24 million € is the 7.16% of 2022 Group EBITDA. In 2022, the Group EBITDA was 335,250 million €.</p>

C4.5

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

Yes

C4.5a

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

Level of aggregation

Product or service

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

The EU Taxonomy for environmentally sustainable economic activities

Type of product(s) or service(s)

Cement and concrete	Other, please specify (EU Taxonomy-aligned Manufacture of cement)
---------------------	--

Description of product(s) or service(s)

The grey cement produced by the plant of Gaurain and Trakya meet the emissions thresholds set out by the Climate Delegated Act of the EU Taxonomy for respecting the criteria of Substantial Contribution and Do Not Significant Harm for the objective of Climate Change Mitigation (environmental objective number 2 of EU Taxonomy). Substantial Contribution to Climate Change Adaptation: for all cement production facilities, Cementir conducted a physical climate risk assessment in line with the provisions of the Taxonomy Regulation.

Do No Significant Harm Climate Change Mitigation: For both plants (Gaurain and Trakya), the greenhouse gas emissions from grey cement clinker production processes are lower than 0.816 tCO₂ per ton of clinker manufactured.

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

Yes

Methodology used to calculate avoided emissions

Other, please specify (We compared the CO2 per ton of clinker emitted by Gaurain and Trakya with the emission threshold defined by EU Taxonomy to Do No Significant Harm to Climate Change Mitigation (0.816 tCO₂ per ton of clinker manufactured))

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

Gate-to-gate

Functional unit used

kg CO2 eq. per ton of clinker produced

Reference product/service or baseline scenario used

0.816 tCO2 per ton of clinker manufactured. Emissions threshold defined by EU Taxonomy to Do No Significant Harm to Climate Change Mitigation

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

Gate-to-gate

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

20

Explain your calculation of avoided emissions, including any assumptions

On average, one ton of clinker produced by our plants located in Gaurain and Trakya emitted 796 kg CO2 eq, 20 Kg lower than the threshold defined by EU Taxonomy (0.816 tCO2 per ton of clinker manufactured).

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

11.71

Level of aggregation

Product or service

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

The IEA Energy Technology Perspectives Clean Energy Technology Guide

Type of product(s) or service(s)

Cement and concrete	Calcined clay
---------------------	---------------

Description of product(s) or service(s)

FUTURECEM® is a limestone calcined clay cement with up to 30% CO2-reduction compared with existing, conventional cement types.

Calcined clay is an alternative cement constituent that can be used instead of clinker in cements. According to IEA, calcined clay is a technology that contribute to achieving the goal of net-zero emissions. FUTURECEM® is fully recognized as a solution for clinker ratio reduction in the roadmap for Low-Carbon Transition in the Cement Industry by the International Energy Agency.

FUTURECEM® is a grey Portland-composite cement, of strength class 52.5 N, with a minimum clinker content of 65%. FUTURECEM® is characterized by a high standard strength (62 to 68 MPa after 28 days), comparable to CEM I cements, despite a significantly lower clinker content. FUTURECEM® can be used in concrete for all purposes and in all environmental classes.

In March 2020, Bureau Veritas certified the compliance of FUTURECEM® with the requirements in cement standard (EN 197-1:2011).

On January 2021, Cementir started the production and distribution of FUTURECEM® in Denmark. In 2022, the distribution has been extended to Belgium.

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

Yes

Methodology used to calculate avoided emissions

Methodology for Environmental Life-Cycle Assessment of Information and Communication Technology Goods, Networks and Services (ITU-TL.1410)

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

Cradle-to-gate

Functional unit used

kg CO2 eq. per ton of FUTURECEM produced. Manufacturing processes, including extraction and transportation of raw materials (cradle-to-gate), of 1 ton of FUTURECEM. It is also included the calcination of clay and its sourcing. It is based on verified results from an LCA performed as basis for an EPD, in accordance with ISO 14025 and EN 15804.

Reference product/service or baseline scenario used

kg CO2 eq. per ton of FUTURECEM produced. Manufacturing processes, including extraction and transportation of raw materials (cradle-to-gate), of 1 ton of FUTURECEM. It is also included the calcination of clay and its sourcing. It is based on verified results from an LCA performed as basis for an EPD, in accordance with ISO 14025 and EN 15804.

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

Cradle-to-gate

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

261

Explain your calculation of avoided emissions, including any assumptions

599 kg CO2 eq. per ton of FUTURECEM® versus 860 kg CO2 eq. per ton of CEM I for a difference of 261 kg CO2 eq. per ton of cement produced.

FUTURECEM® is a grey Portland-composite cement, of strength class 52.5 N, with a minimum clinker content of 65% comparable to CEM I cements, despite a significantly lower clinker content. For this reason, to calculate the avoided emission, we compare the Co2 emitted to produce 1 ton of FUTURECEM® with the CO2 emitted to produce 1 ton of CEM I cement.

The production FUTURECEM® avoid 261 kg CO2 eq. per ton produced comparing CEM I cement (599 versus 860, 30% CO2-reduction).

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

2

Level of aggregation

Product or service

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

The EU Taxonomy for environmentally sustainable economic activities

Type of product(s) or service(s)

Heat	Other, please specify (Production of heat using waste heat)
------	---

Description of product(s) or service(s)

In our plant of Aalborg (Denmark), we have implemented a system for recovering heat from combustion gases used during the production of cement to provide district heating to local inhabitants. In 2022, Aalborg plant delivered 1.3 million GJ of energy to the municipality of Aalborg. The production of heat recovered from Aalborg's kiln operations has been assessed as aligned with the EU Taxonomy. In particular, it makes a substantial contribution to climate change mitigation (environmental objective number 1 of EU Taxonomy) as it is conducted by respecting all of the Do Not Significant Harm criteria concerning the other environmental objectives defined by the EU Taxonomy.

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

No

Methodology used to calculate avoided emissions

<Not Applicable>

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

<Not Applicable>

Functional unit used

<Not Applicable>

Reference product/service or baseline scenario used

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

Explain your calculation of avoided emissions, including any assumptions

<Not Applicable>

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

0.49

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	24
Pre-calcliner	63

C5. Emissions methodology

C5.1

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

No

C5.1a

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

Row 1

Has there been a structural change?

No

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

<Not Applicable>

Details of structural change(s), including completion dates

<Not Applicable>

C5.1b

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

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	No	<Not Applicable>

(C5.2) Provide your base year and base year emissions.**Scope 1****Base year start**

January 1 2017

Base year end

December 31 2017

Base year emissions (metric tons CO2e)

7711243

Comment

We decided to report as base year the 2017, because in 2017 Cementir Group acquired the Belgium plant of Gaurain (Compagnie des Ciments Belges). Following this acquisition, the Group structure has changed significantly. The Belgium plant account for about the 25% of the grey cement production capacity of Cementir Group (out of 9,8 million ton of capacity, 2,3 are related to the Belgium plant).

We reported Scope 1 emissions for all segments: Cement, Aggregates, Ready Mix Concrete, Concrete prefabricated products, Waste Management and Recycling.

Scope 2 (location-based)**Base year start**

January 1 2017

Base year end

December 31 2017

Base year emissions (metric tons CO2e)

692327

Comment

We decided to report as base year the 2017, because in 2017 Cementir Group acquired the Belgium plant of Gaurain (Compagnie des Ciments Belges). Following this acquisition, the Group structure has changed significantly. The Belgium plant account for about the 25% of the grey cement production capacity of Cementir Group (out of 9,8 million ton of capacity, 2,3 are related to the Belgium plant).

We reported Scope 2 emissions for all segments: Cement, Aggregates, Ready Mix Concrete, Concrete prefabricated products, Waste Management and Recycling.

Scope 2 (market-based)**Base year start**

January 1 2019

Base year end

December 31 2019

Base year emissions (metric tons CO2e)

470293

Comment

In 2019, Cementir started to calculate the Scope 2 emission according to the market-based method. Previously, only location-based method was applied.

The calculation was made by applying the Suppliers emission rate for the plants located in Europe, the residual mix figures for the plants located in US, while for the other countries, we updated the national grid average with the supplier specific data, if relevant.

Combined, the European and Us operations account for the 80% of the total group revenues, as of December 2019.

Scope 3 category 1: Purchased goods and services**Base year start**

January 1 2021

Base year end

December 31 2021

Base year emissions (metric tons CO2e)

1872699

Comment

This category includes emissions related to the purchased materials such as clinker, cement, fly ashes, slag, gypsum, pozzolana, etc. The calculation was made applying to quantities (tons) LCA emission factors, specific for each material. The emission factor database used for this calculation is Ecoinvent 3.8 for 2021.

Scope 3 category 2: Capital goods**Base year start**

January 1 2021

Base year end

December 31 2021

Base year emissions (metric tons CO2e)

74577

Comment

This category includes emissions related to the production and transportation of the following capital goods: constructions, machineries, electrical and optical equipment and transport equipment. The calculation was made on the basis of spending for CapEx in 2021 and using the GHG Protocol tool Scope 3 Evaluator (quantis-suite.com).

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

Base year start

January 1 2021

Base year end

December 31 2021

Base year emissions (metric tons CO2e)

961588

Comment

This category includes the emissions related to the extraction, production and transportation of fuels and energy purchased by Cementir in 2021 not already accounted for in Scope 1 or 2. The calculation was made applying the well-to-tank emission factors of BEIS&DEFRA, IEA and Ecoinvent.

Scope 3 category 4: Upstream transportation and distribution

Base year start

January 1 2021

Base year end

December 31 2021

Base year emissions (metric tons CO2e)

235156

Comment

This category includes emissions deriving from upstream transportation by external cargo ships, trucks and freight trains of raw materials, semi-products and products.

Scope 3 category 5: Waste generated in operations

Base year start

January 1 2021

Base year end

December 31 2021

Base year emissions (metric tons CO2e)

227

Comment

This category includes emissions from external wastewater treatment. The calculation uses Ecoinvent emission factors.

Scope 3 category 6: Business travel

Base year start

January 1 2021

Base year end

December 31 2021

Base year emissions (metric tons CO2e)

1425

Comment

This category includes emissions from employee business travels. The calculation was made on the basis of spending for business travel in 2021, using the GHG Protocol tool for Scope 3 evaluation.

Scope 3 category 7: Employee commuting

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

We consider this type of emission not relevant: most of the employees live close to the plants. Moreover, in the period 2020/2021, due to the pandemic outbreak, the Group promoted remote working solutions. Emissions due to employee commuting are estimated to be less than 1% of the total Scope 3 emissions.

Scope 3 category 8: Upstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Category with negligible emissions. According to the Cement Sector Scope 3 GHG Accounting and Reporting Guidance, developed by the Cement Sustainability Initiative, this category is considered 'not relevant' to the cement sector. Emissions due to upstream leased assets are estimated to be less than 1% of the total Scope 3 emissions.

Scope 3 category 9: Downstream transportation and distribution

Base year start

January 1 2021

Base year end

December 31 2021

Base year emissions (metric tons CO2e)

184879

Comment

This category includes emissions deriving from downstream transportation by external cargo ships, trucks and freight trains of products.

Scope 3 category 10: Processing of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Category with negligible emissions. According to the Cement Sector Scope 3 GHG Accounting and Reporting Guidance, this category is considered 'not relevant' to the cement sector. Emissions due to the processing of sold cement products are estimated to be less than 1% of the total Scope 3 emissions.

Scope 3 category 11: Use of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Category with negligible emissions. According to the Cement Sector Scope 3 GHG Accounting and Reporting Guidance, this category is considered 'not relevant' to the cement sector. Emissions due to the direct use-phase of sold cement products over their expected lifetime are estimated to be less than 1% of the total Scope 3 emissions.

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

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Category with negligible emissions. According to the Cement Sector Scope 3 GHG Accounting and Reporting Guidance, this category is considered 'not relevant' to the cement sector. Emissions due to end-of-life treatment of sold cement products are estimated to be less than 1% of the total Scope 3 emissions.

Scope 3 category 13: Downstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Not applicable: The Cementir Group's business does not include leased assets.

Scope 3 category 14: Franchises

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Not applicable: The Cementir Group does not have franchises.

Scope 3 category 15: Investments

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Not applicable: Provision of capital or financing is not included in Cementir Group's business.

Scope 3: Other (upstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Not applicable

Scope 3: Other (downstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Not applicable

C5.3

(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

The Greenhouse Gas Protocol: Scope 2 Guidance

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)

7324885

Start date

January 1 2022

End date

December 31 2022

Comment

We reported Scope 1 emissions for all segments: Cement, Aggregates, Ready Mix Concrete, Concrete prefabricated products, Waste Management and Recycling.

C6.2

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

Row 1

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Scope 2, market-based

We are reporting a Scope 2, market-based figure

Comment

In 2019, Cementir started to calculate the Scope 2 emission according to the market-based method. We performed the calculation for 2019 and also for the 3 years before (2018, 2017 and 2016).

Previously, only location-based method was applied. Until 2019, in the Sustainability Report, we reported scope 2 emission according location-based, only.

In 2022, Scope 2 marked-based figure was calculated by applying: the Supplier emission rates and the European Residual Mixes 2022 (AIB) for the operations located in Europe; the Green-e® Residual Mix (2022 data) for the operations located in US; for the other countries, we updated the national grid average with supplier specific data, if relevant.

We reported Scope 2 emissions for all segments: Cement, Aggregates, Ready Mix Concrete, Concrete prefabricated products, Waste Management and Recycling.

C6.3

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

Reporting year

Scope 2, location-based

386307

Scope 2, market-based (if applicable)

527819

Start date

January 1 2022

End date

December 31 2022

Comment

In 2022, Scope 2 market-based figure was calculated by applying: the Supplier emission rates and the European Residual Mixes 2022 (AIB) for the operations located in Europe; the Green-e® Residual Mix (2022 data) for the operations located in US; for the other countries, we updated the national grid average with supplier specific data, if relevant.

We reported Scope 2 emissions for all segments: Cement, Aggregates, Ready Mix Concrete, Concrete prefabricated products, Waste Management and Recycling.

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1, Scope 2 or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure?

No

C6.5

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

Purchased goods and services

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

2096568

Emissions calculation methodology

Hybrid method

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

1

Please explain

This category includes emissions related to the purchased materials such as clinker, cement, fly ashes, slag, gypsum, pozzolana, etc. The calculation was made applying to quantities (tons) LCA emission factors, specific for each material. The emission factor database used for this calculation is Ecoinvent 3.9 for 2022. For the calculation, also data from the CDP Supply Chain program (please see paragraph 'Value chain engagement' for details) have been used.

Please be aware that the relevance of each scope 3 category has been determined according to CDP's Technical Note on the relevance of Scope 3 categories by sector (cement sector), to Cement Sector Scope 3 GHG Accounting and Reporting Guidance and to GHG Protocol Scope 3 standard.

Capital goods

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

90635

Emissions calculation methodology

Spend-based method

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

0

Please explain

This category includes emissions related to the production and transportation of the following capital goods: constructions, machineries, electrical, optical and transport equipments. The calculation was made on the basis of spending for CapEx in 2022 and using the GHG Protocol tool Scope 3 Evaluator (quantis-suite.com).

Please be aware that the relevance of each scope 3 category has been determined according to CDP's Technical Note on the relevance of Scope 3 categories by sector (cement sector), to Cement Sector Scope 3 GHG Accounting and Reporting Guidance and to GHG Protocol Scope 3 standard.

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

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO₂e)

997091

Emissions calculation methodology

Fuel-based method

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

0

Please explain

This category includes the emissions related to the extraction, production and transportation of fuels and energy purchased by Cementir in 2022 not already accounted for in Scope 1 or 2. The calculation was made applying the well-to-tank emission factors of BEIS&DEFRA, IEA and Ecoinvent.

Please be aware that the relevance of each scope 3 category has been determined according to CDP's Technical Note on the relevance of Scope 3 categories by sector (cement sector), to Cement Sector Scope 3 GHG Accounting and Reporting Guidance and to GHG Protocol Scope 3 standard.

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO₂e)

305081

Emissions calculation methodology

Distance-based method

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

0

Please explain

This category includes emissions deriving from upstream transportation by external cargo ships, trucks and freight trains of raw materials, semi-products and products. The calculation considers freights (tons) and distances and uses BEIS&DEFRA emission factors, specific for the mean of transportation.

Please be aware that the relevance of each scope 3 category has been determined according to CDP's Technical Note on the relevance of Scope 3 categories by sector (cement sector), to Cement Sector Scope 3 GHG Accounting and Reporting Guidance and to GHG Protocol Scope 3 standard.

Waste generated in operations

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO₂e)

139

Emissions calculation methodology

Waste-type-specific method

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

0

Please explain

This category includes emissions from external wastewater treatment. The calculation uses Ecoinvent emission factors.

Please be aware that the relevance of each scope 3 category has been determined according to CDP's Technical Note on the relevance of Scope 3 categories by sector (cement sector), to Cement Sector Scope 3 GHG Accounting and Reporting Guidance and to GHG Protocol Scope 3 standard.

Business travel

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO₂e)

3003

Emissions calculation methodology

Spend-based method

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

0

Please explain

This category includes emissions from employee business travels. The calculation was made on the basis of spending for business travel in 2022, using the GHG Protocol tool for Scope 3 evaluation.

Please be aware that the relevance of each scope 3 category has been determined according to CDP's Technical Note on the relevance of Scope 3 categories by sector (cement sector), to Cement Sector Scope 3 GHG Accounting and Reporting Guidance and to GHG Protocol Scope 3 standard.

Employee commuting

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons 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

Category with negligible emissions. Most employees live close to the plants. Moreover, in the period 2021/2022, the Group promoted remote working solutions. Emissions are estimated to be less than 1% of the total Scope 3 emissions.

Please be aware that the relevance of each scope 3 category has been determined according to CDP's Technical Note on the relevance of Scope 3 categories by sector (cement sector), to Cement Sector Scope 3 GHG Accounting and Reporting Guidance and to GHG Protocol Scope 3 standard.

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons 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

Category with negligible emissions. According to the Cement Sector Scope 3 GHG Accounting and Reporting Guidance²³, developed by the Cement Sustainability Initiative, this category is considered 'not relevant' to the cement sector. Emissions due to upstream leased assets are estimated to be less than 1% of the total Scope 3 emissions.

Please be aware that the relevance of each scope 3 category has been determined according to CDP's Technical Note on the relevance of Scope 3 categories by sector (cement sector), to Cement Sector Scope 3 GHG Accounting and Reporting Guidance and to GHG Protocol Scope 3 standard.

Downstream transportation and distribution

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO₂e)

175291

Emissions calculation methodology

Distance-based method

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

0

Please explain

This category includes emissions deriving from downstream transportation by external cargo ships, trucks and freight trains of products. The calculation considers freights (tonnes) and distances and uses BEIS&DEFRA emission factors, specific for the mean of transportation.

Please be aware that the relevance of each scope 3 category has been determined according to CDP's Technical Note on the relevance of Scope 3 categories by sector (cement sector), to Cement Sector Scope 3 GHG Accounting and Reporting Guidance and to GHG Protocol Scope 3 standard.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons 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

Category with negligible emissions. According to the Cement Sector Scope 3 GHG Accounting and Reporting Guidance, this category is considered 'not relevant' to the cement sector. Emissions due to the processing of sold cement products are estimated to be less than 1% of the total Scope 3 emissions.

Please be aware that the relevance of each scope 3 category has been determined according to CDP's Technical Note on the relevance of Scope 3 categories by sector (cement sector), to Cement Sector Scope 3 GHG Accounting and Reporting Guidance and to GHG Protocol Scope 3 standard.

Use of sold products

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons 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

Category with negligible emissions. According to the Cement Sector Scope 3 GHG Accounting and Reporting Guidance, this category is considered 'not relevant' to the cement sector. Emissions due to the direct use-phase of sold cement products over their expected lifetime are estimated to be less than 1% of the total Scope 3 emissions.

Please be aware that the relevance of each scope 3 category has been determined according to CDP's Technical Note on the relevance of Scope 3 categories by sector (cement sector), to Cement Sector Scope 3 GHG Accounting and Reporting Guidance and to GHG Protocol Scope 3 standard.

End of life treatment of sold products

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons 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

Category with negligible emissions. According to the Cement Sector Scope 3 GHG Accounting and Reporting Guidance, this category is considered 'not relevant' to the cement sector. Emissions due to end-of-life treatment of sold cement products are estimated to be less than 1% of the total Scope 3 emissions.

Please be aware that the relevance of each scope 3 category has been determined according to CDP's Technical Note on the relevance of Scope 3 categories by sector (cement sector), to Cement Sector Scope 3 GHG Accounting and Reporting Guidance and to GHG Protocol Scope 3 standard.

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons 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

Not applicable: The Cementir Group's business does not include leased assets.

Please be aware that the relevance of each scope 3 category has been determined according to CDP's Technical Note on the relevance of Scope 3 categories by sector (cement sector), to Cement Sector Scope 3 GHG Accounting and Reporting Guidance and to GHG Protocol Scope 3 standard.

Franchises

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons 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

Not applicable: The Cementir Group does not have franchises.

Please be aware that the relevance of each scope 3 category has been determined according to CDP's Technical Note on the relevance of Scope 3 categories by sector (cement sector), to Cement Sector Scope 3 GHG Accounting and Reporting Guidance and to GHG Protocol Scope 3 standard.

Investments

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons 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

Not applicable: Provision of capital or financing is not included in Cementir Group's business.

Please be aware that the relevance of each scope 3 category has been determined according to CDP's Technical Note on the relevance of Scope 3 categories by sector (cement sector), to Cement Sector Scope 3 GHG Accounting and Reporting Guidance and to GHG Protocol Scope 3 standard.

Other (upstream)

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons 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

Category with negligible emissions. According to the Cement Sector Scope 3 GHG Accounting and Reporting Guidance, this category is considered 'not relevant' to the cement sector.

Please be aware that the relevance of each scope 3 category has been determined according to CDP's Technical Note on the relevance of Scope 3 categories by sector (cement sector), to Cement Sector Scope 3 GHG Accounting and Reporting Guidance and to GHG Protocol Scope 3 standard.

Other (downstream)

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons 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

Category with negligible emissions. According to the Cement Sector Scope 3 GHG Accounting and Reporting Guidance, this category is considered 'not relevant' to the cement sector.

Please be aware that the relevance of each scope 3 category has been determined according to CDP's Technical Note on the relevance of Scope 3 categories by sector (cement sector), to Cement Sector Scope 3 GHG Accounting and Reporting Guidance and to GHG Protocol Scope 3 standard.

C6.5a

(C6.5a) Disclose or restate your Scope 3 emissions data for previous years.

Past year 1

Start date

January 1 2021

End date

December 31 2021

Scope 3: Purchased goods and services (metric tons CO2e)

1872699

Scope 3: Capital goods (metric tons CO2e)

74577

Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

961588

Scope 3: Upstream transportation and distribution (metric tons CO2e)

235156

Scope 3: Waste generated in operations (metric tons CO2e)

227

Scope 3: Business travel (metric tons CO2e)

1425

Scope 3: Employee commuting (metric tons CO2e)

0

Scope 3: Upstream leased assets (metric tons CO2e)

0

Scope 3: Downstream transportation and distribution (metric tons CO2e)

184879

Scope 3: Processing of sold products (metric tons CO2e)

0

Scope 3: Use of sold products (metric tons CO2e)

0

Scope 3: End of life treatment of sold products (metric tons CO2e)

0

Scope 3: Downstream leased assets (metric tons CO2e)

0

Scope 3: Franchises (metric tons CO2e)

0

Scope 3: Investments (metric tons CO2e)

0

Scope 3: Other (upstream) (metric tons CO2e)

0

Scope 3: Other (downstream) (metric tons CO2e)

0

Comment

The 2021 data has been recalculated by applying a physical data method. In 2021 the calculation was performed by applying a spend based method.

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	347506	<p>CO2 equivalent emission deriving from biomass combustion for the cement production.</p> <p>Cementir Holding uses, in addition to traditionally fossil fuels to operate cement kilns, fuels derived from waste materials and biomass. These alternative fuels (AF) include fossil fuel-derived fractions such as, e.g. waste oil and plastics, as well as biomass-derived fractions such as waste wood and dewatered sludge from wastewater treatment. Therefore, these alternative fuels contain both fossil and biogenic carbon.</p> <p>Cementir Holding estimates CO2 emissions from biofuels/biomass combustion according to the CO2 and Energy Accounting and Reporting Standard for the Cement Industry, developed by the Cement Sustainability Initiative. According to the Cement Sustainability Initiative Standard, CO2 emissions from biofuels/biomass combustion are estimated by determining the share of the biogenic carbon in the fuel's overall carbon content, according to international standards (e.g. EN 15440).</p> <p>Moreover, the GCCA Standard advises companies to use a conservative approach in determining the biogenic carbon content, meaning that the biogenic carbon content should not be overestimated. A fossil carbon content of 100% shall be assumed for fuel types in case of a lack of reliable information on their biogenic carbon content until more precise data becomes available.</p> <p>On the basis of the share of the biogenic carbon in the fuel's overall carbon content, Cementir Holding estimated the share of CO2 emissions from biofuels/biomass combustion in the fuel's overall CO2 emissions.</p>

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

4.56

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

7852702

Metric denominator

unit total revenue

Metric denominator: Unit total

1723103000

Scope 2 figure used

Market-based

% change from previous year

28.86

Direction of change

Decreased

Reason(s) for change

Change in renewable energy consumption

Other emissions reduction activities

Change in output

Change in revenue

Other, please specify (Other: Difference that is not allocated to any specific reason because related to inherent interdependencies between various different levers.)

Please explain

In 2022, the intensity figure decreased to 4.56 Kg CO2/EUR from 6.41 Kg CO2/EUR (value related to 2021). In 2022, the intensity figure decreased of 28.86%. (In 2021, the numerator (Scope 1 + Scope 2 market based) was 8,715,390 tons and the denominator was 1,359,976,000 € for a ratio of 6.41 Kg CO2/EUR).

The reduction is mainly due to the reduction implemented by the Group for the Scope 1 and scope 2 emissions, as reported in C7.9a.

In 2022 the absolute scope 1 + scope 2 (market based) emissions decreased of 862,688 tons.

Out of a difference of 862,688:

A) 1,946 is a reduction related to Change in renewable energy consumption

B) 21,156 is a reduction related to Other emissions reduction activities

C) 633,607 is an reduction related to Change in output produced

D) 205,979 is a reduction related to other. Difference that is not allocated to any specific reason because related to inherent interdependencies between various different levers.

A+B+C+D = 862,688.

In addition, in 2022, the revenues increased to 1,723,103,000 € versus the 1,359,976,000 recorded in 2021. The increase in revenue is mainly due to the price policy applied to mitigate the exceptional increase in the costs of fuel, electricity, raw materials, transport and services.

The decreasing of absolute amount of Scope 1 and 2 emissions and the increasing for revenues lead to a reduction of the intensity figure reported.

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	0.901	0.863	0.047
Cement equivalent	0.725	0.694	0.038
Cementitious products	0.725	0.695	0.038
Low-CO2 materials	0.548	0.523	0.046

C7. Emissions breakdowns

C7.1

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

No

C7.2

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

Country/area/region	Scope 1 emissions (metric tons CO2e)
Denmark	2002530
Belgium	1082203
Turkey	2770326
Egypt	458312
Malaysia	326600
China	449750
United States of America	229033
Norway	3217
Sweden	2759
United Kingdom of Great Britain and Northern Ireland	155

C7.3

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

- By business division
- By facility
- By activity

C7.3a

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

Business division	Scope 1 emissions (metric ton CO2e)
Nordic & Baltic Region	2008506
Belgium Region	1082203
Turkey CEM BU	2769497
Asia Pacific	776350
Egypt CEM BU	458312
North American Region	229033
Waste Management BU	984

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
Den_1	1982062	57.05276	9.978676
Belgium_1	1064619	50.595716	3.481121
Turkey_1	1299164	38.42608	27.216053
Turkey_2	807942	41.799189	26.691284
Turkey_3	455312	38.664642	39.237156
Turkey_4	206215	40.575994	43.010445
Malesia	326600	4.591978	101.09
China	449750	30.535	117.104
US_1	117265	39.96	-76.72
US_2	111095	31.54	-97.14
Egypt	458312	31.12	33.8

C7.3c

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

Activity	Scope 1 emissions (metric tons CO2e)
Cement Production	7278336
Concrete Production	30247
Aggregates, waste management and recycling and other products (concrete prefabricated products)	16301

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	7278336	6967803	We reported gross and net scope 1 emissions related to cement production.
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/area/region.

Country/area/region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Denmark	46622	186956
Belgium	44976	40064
Sweden	48	0
Turkey	159467	159467
Egypt	48752	48752
Malaysia	30341	30341
China	38520	38520
Norway	55	3608
United Kingdom of Great Britain and Northern Ireland	256	339
United States of America	17270	19772

C7.6

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

By business division

By facility

By activity

C7.6a

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

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Nordic & Baltic Region	46725	190563
Belgium Region	44976	40064
Turkey CEM BU	158969	158969
Asia Pacific Region	68861	68861
Egypt CEM BU	48752	48752
North American Region	17270	19772
Waste BU	754	836

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)
Den_1	45946	184245
Belgium_1	39408	35119
Turkey_1	70013	70013
Turkey_2	48448	48448
Turkey_3	25877	25877
Turkey_4	13225	13225
Malesia	30341	30341
China	38520	38520
US_1	6821	9164
US_2	10197	10234
Egypt_1	48752	48752

C7.6c

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

Activity	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Cement Production	377548	513938
Concrete Production	2397	7940
Aggregates, waste management and recycling and other products (concrete prefabricated products)	6362	5940

C7.7

(C7.7) Is your organization able to break down your emissions data for any of the subsidiaries included in your CDP response?

Yes

C7.7a

(C7.7a) Break down your gross Scope 1 and Scope 2 emissions by subsidiary.

Subsidiary name

Aalborg Portland A/S

Primary activity

Cement

Select the unique identifier(s) you are able to provide for this subsidiary

Another unique identifier, please specify (CVR number unique identifier for a business in Denmark's Central Business Register (CVR), the official database of Danish business)

ISIN code – bond

<Not Applicable>

ISIN code – equity

<Not Applicable>

CUSIP number

<Not Applicable>

Ticker symbol

<Not Applicable>

SEDOL code

<Not Applicable>

LEI number

<Not Applicable>

Other unique identifier

CVR No 36428112

Scope 1 emissions (metric tons CO2e)

1981749

Scope 2, location-based emissions (metric tons CO2e)

45941

Scope 2, market-based emissions (metric tons CO2e)

184245

Comment

We reported Scope 1 and 2 emissions for our subsidiary Aalborg Portland A/S.

Subsidiary name

COMPAGNIE DES CIMENTS BELGES (SA)

Primary activity

Cement

Select the unique identifier(s) you are able to provide for this subsidiary

Another unique identifier, please specify (VAT number)

ISIN code – bond

<Not Applicable>

ISIN code – equity

<Not Applicable>

CUSIP number

<Not Applicable>

Ticker symbol

<Not Applicable>

SEDOL code

<Not Applicable>

LEI number

<Not Applicable>

Other unique identifier

VAT number BE 0419.445.816

Scope 1 emissions (metric tons CO2e)

1167528

Scope 2, location-based emissions (metric tons CO2e)

42772

Scope 2, market-based emissions (metric tons CO2e)

Comment

We reported Scope 1 and 2 emissions for our subsidiary COMPAGNIE DES CIMENTS BELGES (SA).

(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	377548	513938	We reported Scope 2, location-based and market-based related to cement production.
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (midstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (downstream)	<Not Applicable>	<Not Applicable>	<Not Applicable>
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

C7.9

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

Decreased

C7.9a

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

	Change in emissions (metric tons CO2e)	Direction of change in emissions	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	1946	Decreased	0.02	<p>The consumption of renewable electricity increased of 4,788 Mwh in 2022 comparing 2021. To estimate the emissions saved, we multiply this amount of renewable electricity for the average CO2 intensity of electricity purchased in 2022 (406.5kg CO2/MWh). In this way, we estimate a CO2 saving of 1,946 metric tons CO2e.</p> <p>The emission value (percentage) is 0.02 because we divided the change in emission per the total Scope 1 and Scope 2 (market based) of the previous year $0.02\% = 1,946 / (8,006,881 + 708,509)$.</p> <p>In 2022 the scope 1 + scope 2 (market based) emissions decreased of 862,688 tons.</p> <p>Scope 1 + Scope 2 in 2022: $7,852,702 = 7,324,884 + 527,818$. See C6.1 and C6.3.</p> <p>Scope 1 + Scope 2 in 2021: $8,715,390 = 8,006,881 + 708,509$, as reported last year.</p> <p>Out of a difference of 862,688: A) 1,946 is a reduction related to Change in renewable energy consumption B) 21,156 is a reduction related to Other emissions reduction activities C) 633,607 is an reduction related to Change in output produced D) 205,979 is a reduction related to other. Difference that is not allocated to any specific reason because related to inherent interdependencies between various different levers. $A+B+C+D = 862,688$. So A+B+C+D explains the difference between 2022 and 2021.</p>
Other emissions reduction activities	21156	Decreased	0.24	<p>Initiatives implemented in 2022 as described in C4.3b.</p> <p>The emission value (percentage) is 0.24 because we divided the change in emission per the total Scope 1 and Scope 2 (market based) of the previous year. $0.24\% = 21,156 / (8,006,881 + 708,509)$.</p> <p>In 2022 the scope 1 + scope 2 (market based) emissions decreased of 862,688 tons.</p> <p>Scope 1 + Scope 2 in 2022: $7,852,702 = 7,324,884 + 527,818$. See C6.1 and C6.3.</p> <p>Scope 1 + Scope 2 in 2021: $8,715,390 = 8,006,881 + 708,509$. As reported last year.</p> <p>Out of a difference of 862,688: A) 1,946 is a reduction related to Change in renewable energy consumption B) 21,156 is a reduction related to Other emissions reduction activities C) 633,607 is a reduction related to Change in output produced D) 205,979 is a reduction related to other. Difference that is not allocated to any specific reason because related to inherent interdependencies between various different levers. $A+B+C+D = 862,688$. So A+B+C+D explains the difference between 2022 and 2021.</p>
Divestment	0	No change	0	In 2022, there was not any divestment.
Acquisitions	0	No change	0	In 2022, there was not any acquisition.
Mergers	0	No change	0	In 2022, there was not any merger.

	Change in emissions (metric tons CO2e)	Direction of change in emissions	Emissions value (percentage)	Please explain calculation
Change in output	633607	Decreased	7.27	<p>In 2022, comparing 2021, the clinker production decreased of 703,227 ton. Multiplying this amount with average emission factor of Cementir in 2022 (0.901 as reported in the question CE6.11), this decreasing in the production of clinker generated a decreasing in CO2 of 633,607</p> <p>The emission value (percentage) is 7.27 because we divided the change in emission per the total Scope 1 and Scope 2 (market based) of the previous year $7.27\% = 633,607 / (8,006,881 + 708,509)$.</p> <p>In 2022 the scope 1 + scope 2 (market based) emissions decreased of 862,688 tons.</p> <p>Scope 1 + Scope 2 in 2022: $7,852,702 = 7,324,884 + 527,818$. See C6.1 and C6.3.</p> <p>Scope 1 + Scope 2 in 2021: $8,715,390 = 8,006,881 + 708,509$. As reported last year</p> <p>Out of a difference of 862,688: A) 1,946 is a reduction related to Change in renewable energy consumption B) 21,156 is a reduction related to Other emissions reduction activities C) 633,607 is a reduction related to Change in output produced D) 205,979 is a reduction related to other. Difference that is not allocated to any specific reason because related to inherent interdependencies between various different levers. $A+B+C+D = 862,688$. So A+B+C+D explains the difference between 2022 and 2021.</p>
Change in methodology	0	No change	0	In 2022, there was not any change in methodology
Change in boundary	0	No change	0	In 2022, there was not any change in boundary.
Change in physical operating conditions	0	No change	0	In 2022, there was not any change in physical operating conditions.
Unidentified	0	No change	0	There was not any unidentified changes.
Other	205979	Decreased	2.36	<p>Difference that is not allocated to any specific reason because related to inherent interdependencies between various different levers.</p> <p>The emission value (percentage) is 2.36 because we divided the change in emission per the total Scope 1 and Scope 2 (market based) of the previous year $2.36\% = 205,979 / (8,006,881 + 708,509)$.</p> <p>In 2022 the scope 1 + scope 2 (market based) emissions decreased of 862,688 tons.</p> <p>Scope 1 + Scope 2 in 2022: $7,852,702 = 7,324,884 + 527,818$. See C6.1 and C6.3.</p> <p>Scope 1 + Scope 2 in 2021: $8,715,390 = 8,006,881 + 708,509$. As reported last year.</p> <p>Out of a difference of 862,688: A) 1,946 is a reduction related to Change in renewable energy consumption B) 21,156 is a reduction related to Other emissions reduction activities C) 633,607 is a reduction related to Change in output produced D) 205,979 is a reduction related to other. Difference that is not allocated to any specific reason because related to inherent interdependencies between various different levers. $A+B+C+D = 862,688$. So A+B+C+D explains the difference between 2022 and 2021.</p>

C7.9b

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

Market-based

C8. Energy

C8.1

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

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

C8.2

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

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

C8.2a

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

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	1006143	9023562	10029705
Consumption of purchased or acquired electricity	<Not Applicable>	315862	982612	1298474
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	0	<Not Applicable>	0
Total energy consumption	<Not Applicable>	1322005	10006174	11328179

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)	9852701
Consumption of purchased or acquired electricity	<Not Applicable>	1236616
Consumption of other purchased or acquired energy (heat, steam and/or cooling)	<Not Applicable>	<Not Applicable>
Total energy consumption	<Not Applicable>	11089317

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.

Sustainable biomass

Heating value

LHV

Total fuel MWh consumed by the organization

0

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>

Comment

N/A

Other biomass**Heating value**

LHV

Total fuel MWh consumed by the organization

1006143

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>

Comment

We reported the total biomass used by the Group (Meat and bone meal, Sunflower oil and biomass content of fuels derived from waste (RDF). RDF, Refuse-derived fuel, is the fuel produced from various types of waste.

Other renewable fuels (e.g. renewable hydrogen)**Heating value**

LHV

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

<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>

Comment

N/A

Coal**Heating value**

LHV

Total fuel MWh consumed by the organization

2480416

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>

Comment

Coal used by the Group

Oil

Heating value

LHV

Total fuel MWh consumed by the organization

265209

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>

Comment

Oil used by the Group

Gas

Heating value

LHV

Total fuel MWh consumed by the organization

512206

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>

Comment

Natural gas used by the Group

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

Heating value

LHV

Total fuel MWh consumed by the organization

5765731

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>

Comment

Other non-renewable fuels, mainly petcoke, used by the Group.

Total fuel

Heating value
LHV

Total fuel MWh consumed by the organization
10029705

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>

Comment
Total Fuels = 1,006,143 of biomass + 2,480,416 of Coal + 265,209 of oil + 512,206 of Gas + 5,765,731 of Other non-renewable fuels

C-CE8.2c

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

Sustainable biomass

Heating value
LHV

Total MWh fuel consumed for cement production activities
0

MWh fuel consumed at the kiln
0

MWh fuel consumed for the generation of heat that is not used in the kiln
0

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

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

Comment
N/A

Other biomass

Heating value
LHV

Total MWh fuel consumed for cement production activities
1005469

MWh fuel consumed at the kiln
1005469

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>

Comment
We reported the total biomass used by the Group for the production of cement (Meat and bone meal, Sunflower oil and biomass content of fuels derived from waste (RDF). RDF (Refuse-derived fuel) is the fuel produced from various types of waste.

Other renewable fuels (e.g. renewable hydrogen)

Heating value

LHV

Total MWh fuel consumed for cement production activities

0

MWh fuel consumed at the kiln

0

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

0

MWh fuel consumed for the self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Comment

N/A

Coal

Heating value

LHV

Total MWh fuel consumed for cement production activities

2480416

MWh fuel consumed at the kiln

2480416

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>

Comment

Coal used by the Group for the production of cement.

Oil

Heating value

LHV

Total MWh fuel consumed for cement production activities

259449

MWh fuel consumed at the kiln

259449

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>

Comment

Oil used by the Group for the production of cement.

Gas

Heating value

LHV

Total MWh fuel consumed for cement production activities

507360

MWh fuel consumed at the kiln

507360

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>

Comment

Natural Gas used by the Group for the production of cement.

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

Heating value

LHV

Total MWh fuel consumed for cement production activities

5600007

MWh fuel consumed at the kiln

5554300

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

45707

MWh fuel consumed for the self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Comment

Other non-renewable fuels, mainly petcoke, used by the Group.

Total fuel

Heating value

LHV

Total MWh fuel consumed for cement production activities

9852701

MWh fuel consumed at the kiln

9806994

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

45707

MWh fuel consumed for the self-generation of electricity

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration

<Not Applicable>

Comment

Total Fuels = 1,005,469 of biomass + 2,480,416 of Coal + 259,449 of oil + 507,360 of Gas + 5,600,007 (5,554,300 in the kiln and 45,707 outside the kiln) of Other non-renewable fuels.

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	0	0	0	0
Heat	356423	0	0	0
Steam	0	0	0	0
Cooling	0	0	0	0

C-CE8.2d

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

	Total gross generation (MWh) inside the cement sector boundary	Generation that is consumed (MWh) inside the cement sector boundary
Electricity	0	0
Heat	356423	0
Steam	0	0

C8.2e

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

Country/area of low-carbon energy consumption

Belgium

Sourcing method

Direct line to an off-site generator owned by a third party with no grid transfers (direct line PPA)

Energy carrier

Electricity

Low-carbon technology type

Solar

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

116.43

Tracking instrument used

Contract

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

Belgium

Are you able to report the commissioning or re-powering year of the energy generation facility?

Yes

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

2020

Comment

Our concrete plant in Belgium purchases electricity coming from photovoltaic panels installed on the building of our neighbour.

Country/area of low-carbon energy consumption

Belgium

Sourcing method

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB))

Energy carrier

Electricity

Low-carbon technology type

Other biomass

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

5945

Tracking instrument used

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB))

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

Belgium

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

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

<Not Applicable>

Comment

Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB).

Country/area of low-carbon energy consumption

Belgium

Sourcing method

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB))

Energy carrier

Electricity

Low-carbon technology type

Wind

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

2223

Tracking instrument used

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB))

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

Belgium

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

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

<Not Applicable>

Comment

Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB).

Country/area of low-carbon energy consumption

Belgium

Sourcing method

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB))

Energy carrier

Electricity

Low-carbon technology type

Nuclear

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

155301

Tracking instrument used

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB))

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

Belgium

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

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

<Not Applicable>

Comment

Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB).

Country/area of low-carbon energy consumption

Belgium

Sourcing method

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB))

Energy carrier

Electricity

Low-carbon technology type

Solar

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

23698

Tracking instrument used

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB))

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

Belgium

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

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

<Not Applicable>

Comment

Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB).

Country/area of low-carbon energy consumption

Belgium

Sourcing method

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB))

Energy carrier

Electricity

Low-carbon technology type

Hydropower (capacity unknown)

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

556

Tracking instrument used

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB))

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

Belgium

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

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

<Not Applicable>

Comment

Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB).

Country/area of low-carbon energy consumption

Turkey

Sourcing method

Other, please specify (Information provided by the Suppliers and Grid mix of renewable electricity)

Energy carrier

Electricity

Low-carbon technology type

Other biomass

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

4678

Tracking instrument used

Other, please specify (Information provided by the Suppliers and Grid mix of renewable electricity)

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

Turkey

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

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

<Not Applicable>

Comment

Information provided by the Suppliers and Grid mix of renewable electricity.

Country/area of low-carbon energy consumption

Turkey

Sourcing method

Other, please specify (Information provided by the Suppliers and Grid mix of renewable electricity)

Energy carrier

Electricity

Low-carbon technology type

Solar

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

14868

Tracking instrument used

Other, please specify (Information provided by the Suppliers and Grid mix of renewable electricity)

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

Turkey

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

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

<Not Applicable>

Comment

Information provided by the Suppliers and Grid mix of renewable electricity.

Country/area of low-carbon energy consumption

Turkey

Sourcing method

Other, please specify (Information provided by the Suppliers and Grid mix of renewable electricity)

Energy carrier

Electricity

Low-carbon technology type

Wind

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

30577

Tracking instrument used

Other, please specify (Information provided by the Suppliers and Grid mix of renewable electricity)

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

Turkey

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

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

<Not Applicable>

Comment

Information provided by the Suppliers and Grid mix of renewable electricity.

Country/area of low-carbon energy consumption

Turkey

Sourcing method

Other, please specify (Information provided by the Suppliers and Grid mix of renewable electricity)

Energy carrier

Electricity

Low-carbon technology type

Hydropower (capacity unknown)

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

124692

Tracking instrument used

Other, please specify (Information provided by the Suppliers and Grid mix of renewable electricity)

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

Turkey

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

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

<Not Applicable>

Comment

Information provided by the Suppliers and Grid mix of renewable electricity.

Country/area of low-carbon energy consumption

Turkey

Sourcing method

Other, please specify (Information provided by the Suppliers and Grid mix of renewable electricity)

Energy carrier

Electricity

Low-carbon technology type

Geothermal

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

12332

Tracking instrument used

Other, please specify (Information provided by the Suppliers and Grid mix of renewable electricity)

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

Turkey

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

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

<Not Applicable>

Comment

Information provided by the Suppliers and Grid mix of renewable electricity.

Country/area of low-carbon energy consumption

Denmark

Sourcing method

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB))

Energy carrier

Electricity

Low-carbon technology type

Other biomass

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

2247

Tracking instrument used

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB))

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

Denmark

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

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

<Not Applicable>

Comment

Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB).

Country/area of low-carbon energy consumption

Denmark

Sourcing method

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB))

Energy carrier

Electricity

Low-carbon technology type

Solar

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

12745

Tracking instrument used

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB))

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

Denmark

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

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

<Not Applicable>

Comment

Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB).

Country/area of low-carbon energy consumption

Denmark

Sourcing method

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB))

Energy carrier

Electricity

Low-carbon technology type

Wind

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

31260

Tracking instrument used

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB))

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

Denmark

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

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

<Not Applicable>

Comment

Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB).

Country/area of low-carbon energy consumption

Denmark

Sourcing method

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB))

Energy carrier

Electricity

Low-carbon technology type

Hydropower (capacity unknown)

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

8318

Tracking instrument used

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB))

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

Denmark

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

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

<Not Applicable>

Comment

Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB).

Country/area of low-carbon energy consumption

Denmark

Sourcing method

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB))

Energy carrier

Electricity

Low-carbon technology type

Nuclear

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

31662

Tracking instrument used

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB))

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

Denmark

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

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

<Not Applicable>

Comment

Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB).

Country/area of low-carbon energy consumption

United States of America

Sourcing method

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (Green-e®))

Energy carrier

Electricity

Low-carbon technology type

Other biomass

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

178

Tracking instrument used

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (Green-e®))

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

United States of America

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

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

<Not Applicable>

Comment

Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (Green-e®).

Country/area of low-carbon energy consumption

United States of America

Sourcing method

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (Green-e®))

Energy carrier

Electricity

Low-carbon technology type

Solar

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

71

Tracking instrument used

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (Green-e®))

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

United States of America

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

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

<Not Applicable>

Comment

Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (Green-e®)

Country/area of low-carbon energy consumption

United States of America

Sourcing method

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (Green-e®))

Energy carrier

Electricity

Low-carbon technology type

Wind

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

6106

Tracking instrument used

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (Green-e®))

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

United States of America

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

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

<Not Applicable>

Comment

Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (Green-e®).

Country/area of low-carbon energy consumption

United States of America

Sourcing method

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (Green-e®))

Energy carrier

Electricity

Low-carbon technology type

Hydropower (capacity unknown)

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

284

Tracking instrument used

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (Green-e®))

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

United States of America

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

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

<Not Applicable>

Comment

Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (Green-e®).

Country/area of low-carbon energy consumption

United States of America

Sourcing method

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (Green-e®))

Energy carrier

Electricity

Low-carbon technology type

Nuclear

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

9033

Tracking instrument used

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (Green-e®))

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

United States of America

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

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

<Not Applicable>

Comment

Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (Green-e®).

Country/area of low-carbon energy consumption

Egypt

Sourcing method

Other, please specify (Grid mix of renewable electricity)

Energy carrier

Electricity

Low-carbon technology type

Solar

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

605

Tracking instrument used

Other, please specify (Grid mix of renewable electricity)

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

Egypt

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

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

<Not Applicable>

Comment

Grid mix of renewable electricity.

Country/area of low-carbon energy consumption

Egypt

Sourcing method

Other, please specify (Grid mix of renewable electricity)

Energy carrier

Electricity

Low-carbon technology type

Wind

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

1518

Tracking instrument used

Other, please specify (Grid mix of renewable electricity)

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

Egypt

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

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

<Not Applicable>

Comment

Grid mix of renewable electricity.

Country/area of low-carbon energy consumption

Egypt

Sourcing method

Other, please specify (Grid mix of renewable electricity)

Energy carrier

Electricity

Low-carbon technology type

Hydropower (capacity unknown)

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

5398

Tracking instrument used

Other, please specify (Grid mix of renewable electricity)

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

Egypt

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

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

<Not Applicable>

Comment

Grid mix of renewable electricity.

Country/area of low-carbon energy consumption

China

Sourcing method

Other, please specify (Grid mix of renewable electricity)

Energy carrier

Electricity

Low-carbon technology type

Solar

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

2190

Tracking instrument used

Other, please specify (Grid mix of renewable electricity)

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

China

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

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

<Not Applicable>

Comment

Grid mix of renewable electricity.

Country/area of low-carbon energy consumption

China

Sourcing method

Other, please specify (Grid mix of renewable electricity)

Energy carrier

Electricity

Low-carbon technology type

Wind

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

3970

Tracking instrument used

Other, please specify (Grid mix of renewable electricity)

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

China

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

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

<Not Applicable>

Comment

Grid mix of renewable electricity

Country/area of low-carbon energy consumption

China

Sourcing method

Other, please specify (Grid mix of renewable electricity)

Energy carrier

Electricity

Low-carbon technology type

Hydropower (capacity unknown)

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

12740

Tracking instrument used

Other, please specify (Grid mix of renewable electricity)

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

China

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

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

<Not Applicable>

Comment

Grid mix of renewable electricity

Country/area of low-carbon energy consumption

China

Sourcing method

Other, please specify (Grid mix of renewable electricity)

Energy carrier

Electricity

Low-carbon technology type

Nuclear

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

3412

Tracking instrument used

Other, please specify (Grid mix of renewable electricity)

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

China

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

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

<Not Applicable>

Comment

Grid mix of renewable electricity

Country/area of low-carbon energy consumption

Norway

Sourcing method

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB))

Energy carrier

Electricity

Low-carbon technology type

Other biomass

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

92

Tracking instrument used

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB))

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

Norway

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

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

<Not Applicable>

Comment

Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB)

Country/area of low-carbon energy consumption

Norway

Sourcing method

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB))

Energy carrier

Electricity

Low-carbon technology type

Solar

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

279

Tracking instrument used

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB))

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

Norway

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

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

<Not Applicable>

Comment

Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB)

Country/area of low-carbon energy consumption

Norway

Sourcing method

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB))

Energy carrier

Electricity

Low-carbon technology type

Wind

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

141

Tracking instrument used

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB))

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

Norway

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

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

<Not Applicable>

Comment

Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB)

Country/area of low-carbon energy consumption

Norway

Sourcing method

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB))

Energy carrier

Electricity

Low-carbon technology type

Nuclear

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

1133

Tracking instrument used

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB))

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

Norway

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

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

<Not Applicable>

Comment

Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB)

Country/area of low-carbon energy consumption

Norway

Sourcing method

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB))

Energy carrier

Electricity

Low-carbon technology type

Hydropower (capacity unknown)

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

480

Tracking instrument used

Other, please specify (Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB))

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

Norway

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

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

<Not Applicable>

Comment

Information provided by the Suppliers and Results of the calculation of Residual Mixes for the calendar year 2022 (AIB)

Country/area of low-carbon energy consumption

Malaysia

Sourcing method

Other, please specify (Grid mix of renewable electricity)

Energy carrier

Electricity

Low-carbon technology type

Other biomass

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

365

Tracking instrument used

Other, please specify (Grid mix of renewable electricity)

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

Malaysia

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

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

<Not Applicable>

Comment

Grid mix of renewable electricity

Country/area of low-carbon energy consumption

Malaysia

Sourcing method

Other, please specify (Grid mix of renewable electricity)

Energy carrier

Electricity

Low-carbon technology type

Solar

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

244

Tracking instrument used

Other, please specify (Grid mix of renewable electricity)

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

Malaysia

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

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

<Not Applicable>

Comment

Grid mix of renewable electricity

Country/area of low-carbon energy consumption

Malaysia

Sourcing method

Other, please specify (Grid mix of renewable electricity)

Energy carrier

Electricity

Low-carbon technology type

Hydropower (capacity unknown)

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

6901

Tracking instrument used

Other, please specify (Grid mix of renewable electricity)

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

Malaysia

Are you able to report the commissioning or re-powering year of the energy generation facility?

No

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

<Not Applicable>

Comment

Grid mix of renewable electricity

C8.2g**(C8.2g) Provide a breakdown by country/area of your non-fuel energy consumption in the reporting year.**

Country/area

Denmark

Consumption of purchased electricity (MWh)

335407

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

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

335407

Country/area

Belgium

Consumption of purchased electricity (MWh)

277820

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

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

277820

Country/area

Sweden

Consumption of purchased electricity (MWh)

8540

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

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

8540

Country/area

Turkey

Consumption of purchased electricity (MWh)

425245

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

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

425245

Country/area

Egypt

Consumption of purchased electricity (MWh)

79921

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

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

79921

Country/area

Malaysia

Consumption of purchased electricity (MWh)

45489

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

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

45489

Country/area

China

Consumption of purchased electricity (MWh)

71679

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

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

71679

Country/area

Norway

Consumption of purchased electricity (MWh)

7182

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

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

7182

Country/area

United Kingdom of Great Britain and Northern Ireland

Consumption of purchased electricity (MWh)

964

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

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

964

Country/area

United States of America

Consumption of purchased electricity (MWh)

46227

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

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

46227

C9. Additional metrics

C9.1

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

Description

Energy usage

Metric value

21

Metric numerator

Alternative fuel consumption for cement production

Metric denominator (intensity metric only)

Total fuel consumption for cement production

% change from previous year

5

Direction of change

Increased

Please explain

Utilization of alternative fuels for thermal energy production in place of non-renewable fossil fuels.

In 2022, 21% of the thermal energy needed in the cement production process of grey and white cement combined was generated from alternative fuels. In 2021, the percentage was 20% while in 2020 was 19%.

The reduced consumption of non-renewable fossil fuels and the resulting increased use of alternative fuels is a primary aim for reducing environmental impact, particularly associated with emissions.

By 2030, the Group will increase the proportion of alternative fuels in the fuel mix to 50% for producing grey cement and 13% for white cement. For white cement, the demand for consistency of colour is much higher than with grey as varying shades of white or coloured surfaces are not acceptable. For this reason, the use of alternative fuels is drastically limited in the production of white cement.

The targets have been set for each plant and mid-term targets has been defined for 2025 and 2030.

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	<p>Cementir developed a new type of cement (FUTURECEM) with up to 30% CO₂-reduction compared with existing, conventional cement types</p> <p>FUTURECEM is a patented technology based on limestone and calcined clay, developed by the Group. The combination of limestone and calcined clay in FUTURECEM can allow over than 35% clinker replacement in cement. Clinker is an interim product that is produced at high temperatures in cement kilns. Hence, replacing clinker with the combination of limestone and calcined clay means significant reductions in CO₂.</p> <p>From 2014-2019, Cementir participated, together with researcher institutions and a range of stakeholders and customers from the construction industry, in the Danish project Green Concrete II with the aim of testing FUTURECEM in a wide range of actual ready-mix concrete applications. In March 2020, Bureau Veritas certified the compliance of FUTURECEM with the requirements in cement standard (EN 197-1:2011). On January 2021, Cementir started the distribution of FUTURECEM in Denmark. In 2022 started the distribution in France.</p> <p>In 2021, Cementir with the Danish Technological Institute has launched CALLISTE (Calcined Clay-Limestone Technology Extension) an applied research initiative, built on FUTURECEM technology, which is financed by the Danish Innovation Funds.</p> <p>The main goal of CALLISTE is to reach a CO₂ reduction as high as 50% compared with conventional Portland cement by 2024 as allowed in the new EN 197-5. The consortium, behind CALLISTE, comprises all the actors representing the entire value chain from academia to industry and final users including ready-mix concrete, precast concrete elements, and dry-cast concrete products. Following the cement industrial production, concrete testing have been carried out within 2022 and proceeding in 2023.</p> <p>FUTURECEM is also included into the research project 'Blocs B40 for low carbon concrete' lead by CERIB. FUTURECEM's experience in Denmark and now in France and Benelux area is paving the way for limestone calcined clay technology in other markets as part of the Group's ambitious sustainable roadmap towards 2030 and beyond.</p>

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

Carbon capture, utilization, and storage (CCUS)

Stage of development in the reporting year

Pilot demonstration

Average % of total R&D investment over the last 3 years

20

R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)

Average % of total R&D investment planned over the next 5 years

25

Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

Cementir's ambition is to reduce CO₂ emission intensity to achieve net-zero emissions (Scope1, Scope2 and Scope 3) along the value chain by 2050. To reduce Scope 1 emissions according to a net-zero pathway endorsed by the SBTi and the EU, Cementir strategy is based, among other, on the following pillar: Reduction of clinker content to reduce the carbon intensity of our cement products; replacement of fossil fuels with alternative fuel and implementation of Carbon Capture and Storage technology. Cementir has for several years investigated the potential for implementation of carbon capture at its cement plants. As part of this, the Group is completing/participating in projects, providing knowledge and experience in all relevant aspects for the value-chain from carbon capture to use or transport and storage of CO₂. In October 2022, a pilot carbon and capture unit was established and tested at the Aalborg Portland plant to collect information about CCS technology. As of July 2023, the pilot carbon capture is currently working and Cementir is evaluating the results of the testing activity. If successful, the project could be scaled up with the potential to capture 400,000 tons of CO₂ per year by 2030. The project, which is named CORT (Carbon capture Open tests and Review of Technologies) and is part of partnership INNO-CCUS, has been developed with the Technical University of Denmark (DTU) and more than fifty collaborators, including Aalborg University, Ørsted and Pentair. CORT is one of the projects currently participated by Cementir focused on developing of breakthrough technology. Moreover, in 2022, Cementir established an interdisciplinary working group responsible for, among with other areas: understanding of current and future legislation on CO₂ infrastructure and storage, investigating the possible subsidy schemes and partners for future funding, assessing the best solution for the Group.

Technology area

Low clinker cement

Stage of development in the reporting year

Small scale commercial deployment

Average % of total R&D investment over the last 3 years

20

R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)

Average % of total R&D investment planned over the next 5 years

25

Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

Cementir's ambition is to reduce CO₂ emission intensity to achieve net-zero emissions (Scope1, Scope2 and Scope 3) along the value chain by 2050. To reduce Scope 1 emissions according to a net-zero pathway endorsed by the SBTi and the EU, Cementir strategy is based, among other, on the following pillar: Reduction of clinker content to reduce the carbon intensity of our cement products; replacement of fossil fuels with alternative fuel and implementation of Carbon Capture and Storage technology. Concerning clinker reduction, Cementir developed a new type of cement (FUTURECEM) with up to 30% CO₂-reduction compared with existing, conventional cement types. FUTURECEM is a patented technology based on limestone and calcined clay, developed by the Group. The combination of limestone and calcined clay in FUTURECEM can allow over than 35% clinker replacement in cement.

From 2014-2019, Cementir participated, together with researcher institutions and a range of stakeholders and customers from the construction industry, in the Danish project Green Concrete II with the aim of testing FUTURECEM in a wide range of actual ready-mix concrete applications. In March 2020, Bureau Veritas certified the compliance of FUTURECEM with the requirements in cement standard (EN 197-1:2011). On January 2021, Cementir started the distribution of FUTURECEM in Denmark. In 2022 started the distribution in France.

FUTURECEM is also included into the research project 'Blocs B40 for low carbon concrete' lead by CERIB. FUTURECEM's experience in Denmark and now in France and Benelux area is paving the way for limestone calcined clay technology in other markets as part of the Group's ambitious sustainable roadmap towards 2030 and beyond.

Technology area

Fuel switching

Stage of development in the reporting year

Small scale commercial deployment

Average % of total R&D investment over the last 3 years

20

R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)**Average % of total R&D investment planned over the next 5 years**

10

Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

Cementir's ambition is to reduce CO₂ emission intensity to achieve net-zero emissions (Scope1, Scope2 and Scope 3) along the value chain by 2050. To reduce Scope 1 emissions according to a net-zero pathway endorsed by the SBTi and the EU, Cementir strategy is based, among other, on the replacement of fossil fuels with alternative fuel.

Cementir will replace fossil fuels with waste-derived fuels and biomass fuels. For grey cement, by 2030, Cementir will use 50% alternative fuel, while for white cement alternative fuels will amount to 13%. The Industrial Plan 23-25 includes the revamping of the kiln at our Belgian plant to increase alternative fuels use from the current 40% to over 70%.

For the Aalborg plant, we planned a partial transition in fuel consumption from pet coke to natural gas. The switching to natural gas, a fossil fuel with emissions much lower than petcoke, is a transitional solution and essential for Cementir's transition to net-zero emissions. As part of this strategy, Aalborg Portland (the Danish legal entity of Cementir) has entered into an agreement with the Danish gas distribution company, Evida, to connect the Aalborg plant to the gas distribution grid in 2023.

Technology area

Waste heat recovery

Stage of development in the reporting year

Small scale commercial deployment

Average % of total R&D investment over the last 3 years

20

R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)**Average % of total R&D investment planned over the next 5 years**

5

Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

Cementir is committed to developing a business model in line with the sustainability strategic goals and the CO₂ emission reduction targets judged by the Science Based Targets initiative (SBTi) to be consistent with a 1.5°C world.

In our plant of Aalborg (Denmark), we have implemented a system for recovering heat from combustion gases used during the production of cement to provide district heating to local inhabitants.

In 2022, the plant delivered about 1.3 million GJ of energy to the Municipality of Aalborg. This system for recovering heat from combustion gases used during the production of cement to provide district heating to local inhabitants is recognized as an activity that provides substantial contribution to climate change mitigation according to the EU Taxonomy. For this reason, this heating supply represent a necessary contribution to our effort to limit warming to 1.5°C.

In the last 3 years, the technical department with the support of external consultants, developed an engineering project to recover additional 1 million GJ to be delivered to the district heating.

The mentioned project must be developed in partnership with the Municipality of Aalborg that is in charge for the management of the district heating and that must manage the additional energy coming from the plant. The plant is currently talking with the Municipality to evaluate the feasibility of the implementation.

The annual CO₂ savings from this heat recovery system have been estimated at 150,000 tons. The calculation is based on the amount of CO₂ that is not emitted from the local coal-fired power station because the total needs are partially covered by the heat coming from the Aalborg plant. In this way, energy that has already been produced during cement production is recycled and delivered to the district heating system, so that the energy does not have to be produced twice.

Our heating supply representing a large and necessary contribution to Aalborg Municipality's climate ambition of becoming a fossil-free city by 2050.

Technology area

Low clinker cement

Stage of development in the reporting year

Applied research and development

Average % of total R&D investment over the last 3 years

20

R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)**Average % of total R&D investment planned over the next 5 years**

5

Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

Cementir's ambition is to reduce CO₂ emission intensity to achieve net-zero emissions (Scope1, Scope2 and Scope 3) along the value chain by 2050. To reduce Scope 1 emissions according to a net-zero pathway endorsed by the SBTi and the EU, Cementir strategy is based, among other, on the following pillar: Reduction of clinker content to reduce the carbon intensity of our cement products; replacement of fossil fuels with alternative fuel and implementation of Carbon Capture and Storage technology.

Concerning clinker reduction, in 2021, Cementir with the Danish Technological Institute has launched CALLISTE (Calcined Clay-Limestone Technology Extension) an applied research initiative, built on FUTURECEM technology, that aims to reach a CO₂ reduction as high as 50% compared with conventional Portland cement by 2024 as allowed in the new EN 197-5 standard for cement.

The CALLISTE project includes 12 partners, representing all the actors of entire value chain of cement from academia to industry and final users including ready-mix concrete, precast concrete elements, and dry-cast concrete products. In 2021, a test version of cement with 50% clinker replacement has been produced for industrial trials. In 2022, this new version of cement has been tested in concrete application. Testing is proceeding in 2023.

C10. Verification

C10.1

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

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

C10.1a

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

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

Cementir Holding NV_Independent auditors report on the Sustainability Report for the year ended 31.12.2022.pdf
Cementir Holding_Sustainability Report 2022 with Limited Assurance from PwC.pdf

Page/ section reference

Limited assurance from external Auditor (PricewaterhouseCoopers) on the 2022 Sustainability Report.
See page 115 of Sustainability Report for the Scope 1 emissions of the Group.
See page 118 of Sustainability Report for the Scope 1 emissions related to cement production.
See page 198 of Sustainability Report and Independent Auditor's Report on the Consolidated Non-Financial Statement attached separately.
The Sustainability Report and related assurance is also available on Corporate Website.

Relevant standard

ISAE3000

Proportion of reported emissions verified (%)

100

C10.1b

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

Scope 2 approach

Scope 2 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

Cementir Holding NV_Independent auditors report on the Sustainability Report for the year ended 31.12.2022.pdf
Cementir Holding_Sustainability Report 2022 with Limited Assurance from PwC.pdf

Page/ section reference

Limited assurance from external Auditor (PricewaterhouseCoopers) on the 2022 Sustainability Report.
See page 115 of Sustainability Report for the Scope 2 emissions of the Group.
See page 118 of Sustainability Report for the Scope 2 emissions related to cement production
See page 198 of Sustainability Report and Independent Auditor's Report on the Consolidated Non-Financial Statement attached separately.
The Sustainability Report and related assurance is also available on Corporate Website.

Relevant standard

ISAE3000

Proportion of reported emissions verified (%)

100

C10.1c

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

Scope 3 category

- Scope 3: Purchased goods and services
- Scope 3: Capital goods
- Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)
- Scope 3: Waste generated in operations
- Scope 3: Business travel

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

Cementir Holding NV_Independent auditors report on the Sustainability Report for the year ended 31.12.2022.pdf
Cementir Holding_Sustainability Report 2022 with Limited Assurance from PwC.pdf

Page/section reference

Limited assurance from external Auditor (PricewaterhouseCoopers) on the 2022 Sustainability Report.
See pages 116 and 117 of Sustainability Report for the Scope 3 emissions of the Group.
See page 198 of Sustainability Report and Independent Auditor's Report on the Consolidated Non-Financial Statement attached separately.
The Sustainability Report and related assurance is also available on Corporate Website.

Relevant standard

ISAE3000

Proportion of reported emissions verified (%)

87

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
C8. Energy	Energy consumption	ISAE3000	All the energy consumptions (fossil fuels, alternative fuels, electricity) have been certified by the external auditor PWC. See pages 109/110/111 and 119/120 for the energy consumption. See page 198 of Sustainability Report (Independent Auditor's Report on the Consolidated Non-Financial Statement). The Sustainability Report and related assurance is also available on Corporate Website https://www.cementirholding.com/sites/default/files/documenti/2023-05/Sostenibilita%CC%80%202022%20-%20ING_WEB.pdf
C9. Additional metrics	Other, please specify ((Fossil fuel replacement index: Utilization of alternative fuels for thermal energy production in place of non-renewable fossil fuels.))	ISAE3000	The fossil fuel replacement index reported in section C9. Additional metrics has been certified by the external auditor PWC. See page 110 (Fossil fuel replacement index) and 198 of Sustainability Report (Independent Auditor's Report on the Consolidated Non-Financial Statement). The Sustainability Report and related assurance is also available on Corporate Website. https://www.cementirholding.com/sites/default/files/documenti/2023-05/Sostenibilita%CC%80%202022%20-%20ING_WEB.pdf

Cementir Holding NV_Independent auditors report on the Sustainability Report for the year ended 31.12.2022.pdf
Cementir Holding_Sustainability Report 2022 with Limited Assurance from PwC.pdf

C11. Carbon pricing

C11.1

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

Yes

C11.1a

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

EU ETS

C11.1b

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

EU ETS

% of Scope 1 emissions covered by the ETS

42

% of Scope 2 emissions covered by the ETS

0

Period start date

January 1 2022

Period end date

December 31 2022

Allowances allocated

2761687

Allowances purchased

157000

Verified Scope 1 emissions in metric tons CO₂e

3044663

Verified Scope 2 emissions in metric tons CO₂e

0

Details of ownership

Facilities we own and operate

Comment

The only carbon pricing regulation which impacts on Cementir operations is the EU ETS.

C11.1d

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

As a cement company with two plants located in Europe (Gaurain plant in Belgium and Aalborg plant in Denmark), we are subject under regulatory regime to the EU ETS system, and the financial implications of such a scheme are a risk for us. Among the areas where Cementir operates, Europe is the only region with a regulatory framework for CO2 quotes.

Description of the strategy for complying with the systems in which Cementir participates.

The EU ETS covers scope 1 emissions related to the production of grey and white cement. For this reason, Cementir is committed to reduce its Scope 1 emissions to 460 kg of CO₂ per ton of grey cement, 36% lower than 2020 emissions. For white cement, Cementir's plan is to reduce its Scope 1 emissions to 738 kg, 19% lower than 2020 emissions.

This commitment is defining our strategy for managing this risk. Reductions in the CO₂ emitted by our European plants (Gaurain plant in Belgium and Aalborg plant in Denmark) will mitigate the financial implications of EU ETS.

To accomplish the 2030 target, in 2020, Cementir has developed a roadmap until 2030 which is focused on the following pillars.

A) Reduction of clinker content to 64% for grey cement and 78% for white cement. We will reduce the clinker content through:

- the replacement of clinker with alternative decarbonized mineral additives such as fly ash and slag;
- the development of a new low-carbon cement, FUTURECEM, a technology which allows for more than 35% of the energy-intensive clinker in cement to be replaced by limestone and calcined clay.

B) Replacement of fossil fuels with alternative fuels. We will replace fossil fuels with waste-derived fuels and biomass fuels. For grey cement, by 2030, Cementir will use 50% alternative fuel, while for white cement alternative fuels will amount to 13%.

C) Implementation of Carbon Capture and Storage (CCS) technology in Aalborg. Cementir has for several years investigated the potential for implementation of carbon capture at its cement plants. As part of this, the Group is completing/participating in projects, providing knowledge and experience in all relevant aspects for the value-chain from carbon capture to use or transport and storage of CO₂. In October 2022, a pilot CCS unit was established at the Aalborg plant. As of July 2023, the pilot unit is working, and the technical department is analyzing the data. The CCS will continue operations until September 2023. If successful, the project could be scaled up with the potential to capture 400,000 tons of CO₂ per year by 2030.

How the strategy has been applied so far

Specific targets for alternative fuels, clinker ratio and CO₂ emissions have been established in order to accomplish the 2030 goals. Such targets have been deployed in every single plant and were included in the Industrial Plan and in our employee short-term incentive system.

In the 2020-2022 period, action to reduce CO₂ emissions per ton of cement achieved better results than initially planned by the Group in its Roadmap to 2030. In 2022, the emissions per ton of grey cement were 672 kg, 6% lower than in 2020 and below the 679 kg target that the Roadmap planned for 2022. Emissions per ton of white cement were 886 kg, 3% lower than in 2020 and below the target of 915 kg set for 2022 in the Roadmap.

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

The commitment to reducing Scope 1 is company-wide, so each plant developed a decarbonization roadmap until 2030, aligned with our global strategy. This will help our plants to manage any emerging regulations concerning carbon pricing system similar to EU ETS.

Among the non-European countries, where our plants are located, China has announced to implement a CO₂ trading system. It's predicted that Cement sector could be covered in 2025.

In 2022, the performance of the Anqing plant (the only Cementir plant located in China) was better than EU ETS Benchmark for white cement. The Anqing plant is producing white cement. The plant emissions were 948 kg CO₂/ton clinker versus an EU ETS benchmark of 957 kg CO₂/ton clinker. Considering the performance of our Chinese plant, in the medium-short term, the implementation of a carbon emission trading system similar to EU ETS in China will not affect negatively Cementir.

C11.2

(C11.2) Has your organization canceled any project-based carbon credits within the reporting year?

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.

Type of internal carbon price

Shadow price

How the price is determined

Alignment with the price of allowances under an Emissions Trading Scheme

Objective(s) for implementing this internal carbon price

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

Scope(s) covered

Scope 1

Pricing approach used – spatial variance

Uniform

Pricing approach used – temporal variance

Evolutionary

Indicate how you expect the price to change over time

We assume a price that develops and increase over time.

Actual price(s) used – minimum (currency as specified in C0.4 per metric ton CO2e)

80

Actual price(s) used – maximum (currency as specified in C0.4 per metric ton CO2e)

80

Business decision-making processes this internal carbon price is applied to

Capital expenditure
Operations
Risk management
Opportunity management

Mandatory enforcement of this internal carbon price within these business decision-making processes

Yes, for all decision-making processes

Explain how this internal carbon price has contributed to the implementation of your organization's climate commitments and/or climate transition plan

We apply an uniform pricing. The same price (80 EUR) is applied throughout the Group independent of geography, business unit, or type of decision.
Situation: Climate action is at the heart of the European Green Deal and EU Taxonomy, an ambitious European package of measures for cutting greenhouse gas emissions. Climate change is thus reshaping the cement sector. For this reason, in the last years, Cementir focused its R&D on low carbon products (FUTURECEM), as described in "C.3.3 Products and services") or other project able to reduce CO2 emissions of the production process.
Task: develop project in order to replace fossil fuels with alternative fuels for reducing the CO2 emission related to the combustion of fuels for producing clinker. Cement production is a thermal energy intensive process, which requires heating raw materials up to 1450°C and cooling it down. Limestone and clay are heated to approximately 1,450 degrees Celsius in rotary kiln in order to produce clinker, semi-finished product.
Action: following the feasibility study for addressing an opportunity for conversion from fossil fuels (i.e. petcoke or coal) to natural gas, Cementir planned the utilization of natural gas in Aalborg, our Danish plant. The switching to natural gas, a fossil fuel with emissions lower than petcoke (estimated reduction of 20% of CO₂), is a transitional solution for Cementir's path to net-zero emissions.
Results: Due to the reduction in CO2 emissions, Cementir will have to buy a minor number of CO2 quotas in EU ETS. This reduction in the CO2 quotas led to a positive financial impact that affect positively the business case evaluation (due to natural gas combustion, Cementir will buy less CO2 quotas). Without the application of the carbon price, the mentioned investment will not have a positive NPV (net present value) and Cementir will not probably implement it. Therefore, the capital expenditure would be allocated in a different way. As part of this project, Aalborg plant has entered into an agreement with the state gas distribution company, Evida, to connect the plant to the gas distribution grid on 2023. Following the implementation of the investment, a reduction of 20% of CO2 is estimated for the Aalborg plant.

C12. Engagement

C12.1

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

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

C12.1a

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

Type of engagement

Engagement & incentivization (changing supplier behavior)

Details of engagement

Run an engagement campaign to educate suppliers about climate change

Other, please specify (Monitor CO2 emissions of 73% of top Group suppliers (representing approx. 37% of the total purchases by value) through the CDP supply chain program)

% of suppliers by number

73

% total procurement spend (direct and indirect)

37

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

58

Rationale for the coverage of your engagement

Cutting our CO2 emissions is a priority of Cementir Group, but clearly, we cannot achieve a carbon neutral future alone. For this reason, we decided to engage with the various partner of our value chain (supplier, customers, competitors, policy maker) to promote the development of a sustainable cement business.

We decided to investigate the CO2 emissions of our suppliers to understand how to reduce them and how to develop mutually beneficial projects (both for Cementir and for Suppliers). Rationale for the coverage: we decided to focus the engagement on the Top Group Suppliers, the suppliers evaluated as strategic by the Group because of proportion of spend, geographic location, type of raw material and services provided. Since 2020, a selection of strategic suppliers, in increasing numbers, is annually invited to participate in the CDP Supply Chain program, a program aimed at the collection and evaluation of our Scope 3 data.

In 2022, the 73% of Top Group suppliers (110 Suppliers, equal to the 37% of the purchases of the Group by value) were invited to participate in the CDP Supply Chain program. By covering the 73% of Top group suppliers, we included the fuels suppliers of the Group that, as reported in C6.5, account are the main source of Scope 3 emissions and account for about the 58% of our total Scope 3 emissions. So, by covering the 73% of Top group supplier, we are ensuring the monitoring of more than half of our scope 3 emissions.

To support this engagement and boost supplier response rates, dedicated supplier training webinars were held. This training aims to communicate the importance and benefits from transparently reporting on emissions and climate impact. Each Supplier has been invited to disclose information about its risks and opportunities associated with climate change, its emissions, details on its emissions management strategy such as targets, and actions it has taken to reduce its emissions.

Impact of engagement, including measures of success

Cementir started the mentioned project in 2020 and the impact of engagement is in line with the targets setup for the project (the project is still on-going).

In particular, the targets of the project were:

- 1) run an engagement campaign to educate suppliers about climate change.
- 2) collect useful information for the estimation of Scope 3 emission. Until 2020, Cementir did not calculate scope 3 emission.
- 3) reach a response rate of 50% within 3 years. At least half of the suppliers involved must provide the requested information through CDP Supply Chain program.
- 4) collect information for the definition of a CO2 reduction target for scope 3 emission.

Status of the targets

- 1) Target achieved. In 2020, 2021 and 2022, dedicated supplier training webinars were held. The trainings, performed by our Sustainability Department with the support of CDP personnel, were focus on climate change issues and in the importance and benefits from transparently reporting on emissions and climate impact.
- 2) Target achieved. In 2020, the 24% of the Suppliers involved provided their environmental information through CDP Supply Chain program. In 2020, the information collected throughout this program helped Cementir to estimate for the first time its Scope 3 emission. In particular, the Scope 3 category 'Purchased goods and services'.
- 3) Target in line with the planned roadmap. In 2022 the response rate remained stable at 39% as in 2021. Since, a selection of strategic suppliers were invited to participate in the CDP Supply Chain program (2020:55 Suppliers involved with 17 answers, 2021:75 Suppliers involved with 29 answers, 2022:110 suppliers involved with 43 answers).
- 4) Target in line with the planned roadmap. As of July 2023, Cementir has developed a scope 3 reduction target. The goal of the Group is to reduce Scope 1, 2 and 3 emissions to zero or to a residual level that is consistent with reaching net-zero emissions at the global level in eligible 1.5°C scenarios and to neutralize any residual emissions at the net-zero target date.

For the target 1) and 2) we consider our impact to be successful with regard to the measure of success. For the target 3 and 4, the project is in line with the planned roadmap.

Comment

There are not other additional relevant information.

C12.1b

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

Type of engagement & Details of engagement

Education/information sharing	Share information about your products and relevant certification schemes (i.e. Energy STAR)
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% of customers by number

55

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

0

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

The 55% of the total turnover is related to North Europe (Scandinavia, France, Benelux, UK, Germany, Poland), so, due to the relevance of this market for the Group, between 2018 and 2019, we perform a survey to investigate the status of the green transition in North Europe, then how it will change the construction industry in the coming years and finally what Cementir should do when it comes to sustainability topics (among other water management and CO2).

One of the results of the survey. For our customers that produce ready-mix concrete, water is an essential raw material. Water combined with cement and aggregates produces concrete. For our customers located in water stress area, as central Europe (i.e., Belgium), is becoming relevant to have supplier of cement and aggregates able to guarantee a sustainable use of water to obtain public works contracts. Governments in central Europe (i.e., Benelux area and Netherlands) recognized the importance of label as Concrete Sustainability Council (CSC) certification in the procedures for the award of public works contracts. To obtain the CSC supplier certificate, the cement and aggregates plants must meet several requirements to demonstrate sustainable practices in "water management" and "energy and climate". Among other, to obtain the certification, cement and aggregates plants must demonstrate the reliability of their plan for reducing their environmental impacts, by reducing for example water consumption and CO2 emission in the short, medium and long term.

In 2019, the plants located in Belgium, a high-stress area, committed the CSC Certification System to meet the new requirements of the Customers and secure the sales related to public works contracts. Between 2020 and 2021 all of our cement and aggregates plants located in Belgium obtained the CSC Certification.

Impact of engagement, including measures of success

The engagement has been a successful for the Group and the customers of our Belgian operations. Please see below the details.

Measure of success for our Group. Starting from the last quarter of 2021, the 100% of sale of cement and aggregates performed by our Belgian companies are supported by CSC certificates. The certification demonstrates the effectiveness of the water management practices implemented by our plants located in a water- stressed area and the effectiveness of the actions implemented by our plants to reduce CO2 emissions.

Measure of success for our customers and the Group. Our customers that produce ready-mix concrete can certify the sustainable practices applied by their supply chain in the procedures for the award of public works contracts. Therefore, our Belgian operations secured sales related to public works contracts. Without CSC certification, our Belgian operations could have lost this type of sales.

Type of engagement & Details of engagement

Education/information sharing	Share information about your products and relevant certification schemes (i.e. Energy STAR)
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% of customers by number

100

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

0

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

While operating in a fairly traditional sector, the Group has moved towards a more customer-oriented approach. For this reason the company's engagement activities are addressed toward all our customers located in our strategic countries (e.g. Belgium, Denmark, Türkiye).

The engagement activities implemented are:

- the annual Voice of the Customer (VoC) Survey, to measure customer satisfaction/engagement on product quality, services, innovation and sustainability, relationships, sales processes, after-sales service and technical support. More specifically, in the VoC, among other indicators, Cementir applies the Net Promoter Score (NPS) and Customer Loyalty Score (CLS). These methodologies allow direct dialogue with customers, in order to continuously improve their experience and to increase their loyalty;
- development and sales increase of low carbon products (e.g. FUTURECEM);
- participation and organization in events, exhibitions and workshops where our low carbon products are presented, explained to customers. In those occasions, customers are encouraged to reduce their impact on environment.

Impact of engagement, including measures of success

The measure of success of all these activities is measured by looking at the response rate of the Voice of the Customer Survey and the amount of FUTURECEM's sales. Both the mentioned activities have been successful in 2022, thanks to the results achieved.

The VoC, in 2022, has noted a great commitment from customers: 62% of response rate. The survey highlighted also as Cementir Group is well-perceived with its low carbon strategy, customers strongly agree in company's increasing commitment in the environmental impact of products, CO2 footprint and low carbon cement. From the survey emerges also that FUTURECEM is used from almost half of costumers surveyed and, in comparison with 2022, its sales increased, by enabling the development of low-carbon products.

C12.1d

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

Cementir actively participates in global and national industry policy discussions on issues related to Climate Change, Sustainable Infrastructure, Innovation & Digital Transformation.

The other partners in the value chain involved are: Competitors, Research Academy and other international organization actively involved in the building of a sustainable economy (i.e. CDP), local communities.

Regarding the research Academy and other international organization actively involved in the building of a sustainable economy, those can be categorized as Institutional bodies and were engaged also for the Materiality Matrix process .

Specifically at the validation stage, were involved both internal and external stakeholders, including institutional bodies, that through an anonymous multiple-choice survey were asked to share their degree of relevance that they assigned to material business topics on a scale of 0 (irrelevant) to 4 (very relevant). The ones involved were a selection of those with whom we have a connection over time.

The engagement of institutional bodies, for the validation of the Materiality Matrix, is of crucial importance and enables a better understanding of stakeholders' expectations.

Their engagement help us to have a clearer vision on material topics, and therefore on Climate issues, given their extensive knowledge on the subject, on how the market is evolving and how our competitors are moving.

Regarding the Climate Change topic it was considered very relevant by the 100% of the institutional bodies involved, enforcing company's commitments toward the fight against climate change. This engagement activity, for 2022, has been measured as successful thanks to a response rate of around 60%. In the future, for sure, we aim to increase the percentage of response rate by increasing the institutional bodies' engagement.

An other initiative, important on the side of other partners in the value chain engaged, is related to the potabilization of Clypot quarry water.

Clypot is a limestone and blue stone quarry exploited for aggregates and located in Belgium. During the operations of extraction of limestone, the water that naturally come out, must be removed to allow dry extraction in the quarry. The local authority considers the local aquifer where the quarry is located (the Soignies Ecaussinnes hydrogeological basin) currently overexploited. This poses a risk for the future exploitation of our quarry.

So, to anticipate future regulatory tightening concerning water management we started a collaboration with the local authority, the local water provider and the third-party that exploits part of the quarry for implementing a project for recovering quarry water in the public distribution network allowing the authority to close production wells and thus spare the local aquifer.

This is a win-win partnership, enabling the achievement of a common good that benefits both the local community and the environment.

C12.2

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

Yes, suppliers have to meet climate-related requirements, but they are not included in our supplier contracts

C12.2a

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

Climate-related requirement

Other, please specify (All Cementir Group Procurement suppliers must comply with the requirements stated in Supplier Code of Conduct.)

Description of this climate related requirement

All Cementir Group Procurement suppliers must comply with the requirements stated in Supplier Code of Conduct.

We report from our Supplier Code of Conduct "Suppliers must be strongly committed to behave in a socially responsible manner, respecting the values of a positive environment and a healthy and safe workplace, thus ensuring that the cultures and traditions of each country in which suppliers operate are observed and respected. The relationship with the territory is one of the crucial aspects, as these activities have an inevitable impact on the surrounding areas. For this reason, suppliers must pay attention to issues relating to climate change and emissions into the atmosphere. It is expected that suppliers know how to manage emissions, protect the business from the impacts of climate change and protect the health and safety of workers. On the specific matter of sustainable water management, being recognized as fundamental, Cementir has adopted a Group Water Policy available at Cementir website. All workers must always have an adequate access to WASH – water, sanitation and hygiene - and all suppliers are expected to be strongly committed to adopt efficient water management practices, also ensuring – at an appropriate level - minimization of freshwater withdrawal, reduction of wastewater discharge and enhanced water recycling systems."

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

100

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

100

Mechanisms for monitoring compliance with this climate-related requirement

Grievance mechanism/Whistleblowing hotline

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

Other, please specify (In the event of non-conformity, we will require that suppliers promptly implement action plans to bring their performance in line with the requirements. If such actions are not implemented, we reserve the right to early terminate the relationship.)

(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?**Row 1****External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the climate**

Yes, we engage directly with policy makers

Yes, our membership of/engagement with trade associations could influence policy, law, or regulation that may impact the climate

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

Yes

Attach commitment or position statement(s)

We want to offer consistent and effective disclosures that allow governments, investors, and other stakeholders to assess the climate risks and the pertinence of the actions planned by Cementir to manage those risks.

Cementir is committed to developing a business model in line with the sustainability strategic goals and the CO2 emission reduction targets judged by the Science Based Targets initiative (SBTi) to be consistent with the 'well below 2°C' objective, pursuant to the Paris Climate Agreement of 2015. By 2030, Cementir will reduce its Scope 1 and Scope 2 emission by 25% compared to 2020. This is the first milestone to be accomplished in order to achieve the net-zero emissions along our value chain by 2050. CH_Press release_SBT_22 07 2021.pdf

Describe the process(es) your organization has in place to ensure that your external engagement activities are consistent with your climate commitments and/or climate transition plan

The Sustainability Committee is responsible for the coordination of all activities that influence policy. For this reason, the Sustainability Committee is responsible for the coordination of the participation of Cementir representatives in the various regional/global associations or public working groups.

For example, Cementir takes part in CEMBUREAU, the European Cement Association (trade association), the GCCA, the Global Cement and Concrete Association (trade association) and the Climate Partnership promoted by the Danish Government to cut the CO2 emissions of Denmark of 70% by 2030 (policy makers). Cementir representatives that actively participate to the mentioned associations or public working groups must engage in a way that reflects Cementir position, according to the instructions received by the Sustainability Committee.

All the activities engaged by Cementir representatives must be previously agreed with the Sustainability Committee. In addition, the Committee is quarterly updated concerning the commitment of the mentioned associations or public working groups on public policy and concerning any relevant trend or upcoming legislation concerning climate change.

In this way, the Committee can evaluate the consistency of the activities performed by the associations and working group with Cementir Sustainability Strategy.

In case, any major divergences with the mentioned associations or working groups should occur, Cementir will dissociate itself from the association and related activities. In extreme situation, Cementir will resign from the association or working group.

Primary reason for not engaging in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

<Not Applicable>

Explain why your organization does not engage in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

<Not Applicable>

(C12.3a) On what policy, law, or regulation that may impact the climate has your organization been engaging directly with policy makers in the reporting year?

Specify the policy, law, or regulation on which your organization is engaging with policy makers

Danish climate law. The purpose of this law is for Denmark to reduce greenhouse gas emissions in 2030 by 70% compared to the level of emissions in 1990, and to achieve a climate-neutral society by 2050 at the latest, taking into account the Paris Agreement target of limiting the global temperature rise to 1.5 degrees Celsius.

Category of policy, law, or regulation that may impact the climate

Climate change mitigation

Focus area of policy, law, or regulation that may impact the climate

Climate-related targets
Emissions – CO2

Policy, law, or regulation geographic coverage

National

Country/area/region the policy, law, or regulation applies to

Denmark

Your organization's position on the policy, law, or regulation

Support with no exceptions

Description of engagement with policy makers

Starting from 2019, through the danish subsidiary Aalborg Portland, the Group was involved in the most ambitious CO2 reduction project sponsored by a national government.

In autumn 2019, Denmark's parliament adopted a new climate law with the target of reducing Danish CO2 emissions by 70% by 2030, from a 1990 baseline.

In December 2019, the Danish Prime Minister appointed the Managing Director of Aalborg Portland as head of the climate partnership for energy-intensive industry in Denmark. In 2020 and 2021, this climate partnership, led by Aalborg Portland and composed by the main refining, chemicals and food Danish companies, provided the Danish government with the technical forecast of all potential CO2 reduction achievable and defined the prerequisites (policy, research, innovation, subsidies, etc.) for such reductions.

In July 2022, in compliance with the climate law defined by Danish government, Aalborg Portland committed to reduce its CO2 emissions by 600.000 ton within 2030 and to achieve net zero emissions by 2050. This is an absolute target and it is equal to a reduction of 73% comparing to the CO2 emitted by Aalborg Portland in 2021. Aalborg Portland is the single-largest contributor to the Danish reduction targets in 2030.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation

<Not Applicable>

Have you evaluated whether your organization's engagement on this policy, law, or regulation is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Please explain whether this policy, law or regulation is central to the achievement of your climate transition plan and, if so, how?

We don't evaluate this law as central for the implementation of Cementir climate transition plan because this is a national law, valid for Denmark, while the Cementir climate transition plan covers the operations of the full Group, worldwide.

Cementir ambition is to achieve net-zero emissions (Scope 1, Scope 2 and Scope 3) along the value chain by 2050 for the full Group so regardless this law that is set up at national level. However, we think that for achieving net-zero emission along the value chain it will need decisive political action from the EU and national Governments, as Denmark, in some key areas, including: the development of a European CO2 transportation and storage network and policies to reduce building's CO2 footprint that incentivize the market uptake of low-carbon cements.

C12.3b

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

Trade association

CEMBUREAU: The European Cement Association

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

Consistent

Has your organization attempted to influence their position in the reporting year?

Yes, we publicly promoted their current position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

Cementir position is aligned with the Carbon Neutrality Roadmap 2050 of the CEMBUREAU.

In the Carbon Neutrality Roadmap 2050, the CEMBUREAU set out the European cement industry's ambition to reach net zero emissions along the cement and concrete value chain by 2050. Similarly, Cementir's ambition is to reduce CO₂ emission intensity to achieve net-zero emissions (Scope 1, Scope 2 and Scope 3) along the value chain by 2050.

The European Cement Association (CEMBUREAU) is based in Brussels and is the representative organization of the cement industry in Europe.

The Association acts as spokesperson for the cement industry before the EU institutions and other public authorities and communicates the industry's views on all issues and policy developments regarding technical, environmental, energy, employee health and safety and sustainability issues.

Cementir representatives actively participate in the working group that define the CEMBUREAU views and position on all issue and policy regarding technical, environmental, energy, employee health and safety and sustainability issues.

Cementir representatives that actively participate in the working groups must engage in a way that reflects Cementir position, according to the instructions received by the Sustainability Committee. All the activities engaged by Cementir representatives must be previously agreed with the Sustainability Committee. In addition, the Committee is quarterly updated concerning the activities performed by the working groups. In this way, the Committee can evaluate the consistency of the activities performed by the association and working groups with Cementir Sustainability Strategy. In case, any major divergences with the association or working groups should occur, Cementir will dissociate itself from the association and related activities. In extreme situation, Cementir will resign from the association or working group.

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

46000

Describe the aim of your organization's funding

The funding is the related to the membership fee

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

Yes, we have evaluated, and it is aligned

C12.4

(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

CH_Annual report 2022.pdf

Page/Section reference

CORPORATE GOVERNANCE, pages 65/90 (please see page 79 for Sustainability Committee)

RISKS AND UNCERTAINTIES, pages 59/63 (with a specific part for climate risks);

NON-FINANCIAL INDICATORS, pages 31/34 (with information about emission figures, emissions targets, strategy and other metrics as alternative fuels or water)

INNOVATION, QUALITY, RESEARCH AND DEVELOPMENT, pages 41/43 (with information about strategy)

NON-FINANCIAL STATEMENT, pages 96/111 (with information about strategy and EU Taxonomy)

Content elements

Governance

Strategy

Risks & opportunities

Emissions figures

Emission targets

Other metrics

Other, please specify (Water consumption, see NON-FINANCIAL INDICATORS, pages 31/34)

Comment

Cementir published the 2022 Annual Report. In addition to financial performance of the Group, the Annual Report provides information about the Sustainability Governance, Climate risks, emission reduction targets and the related strategy to accomplish the targets, actual emission figures, metrics about alternative fuels and water consumption. Starting from 2021 the Cementir Group has launched a project to implement the recommendations of the TCFD (Task Force on Climate-Related Financial Disclosure) committing to be transparent on risks and opportunities related to climate change. The identification, assessment and effective management of risks and opportunities related to climate change are fully integrated into the Group's risk management process (see pages 59/63).

Publication

In voluntary sustainability report

Status

Complete

Attach the document

Cementir Holding_Sustainability Report 2022 with Limited Assurance from PwC.pdf

Page/Section reference

Incorporation of TCFD recommendations, pages 60/62
GOVERNANCE, page 78
STRATEGY page 63/72 (Cementir Roadmap 2030 and 2050 Ambition)
RISKS AND OPPORTUNITIES, pages 90/105 (with a specific part for climate risks);
EMISSIONS FIGURES, pages 115/117 ('Cementir's CO2 footprint)
EMISSION TARGETS, pages 63/64
ALTERNATIVE FUELS pages 109/111
ENERGY CONSUMPTION pages 119/120
WATER CONSUMPTION pages 121/125

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics
Other, please specify (alternative fuels, energy consumption, water consumption)

Comment

Cementir publishes an annual Sustainability Report, incorporating the TCFD recommendations. The Report is compliant with GRI Sustainability Reporting Standards, (In Accordance - Core" reporting option). A detailed overview of the indicators disclosed can be found in the GRI Content Index (included in the Report) which provides a detailed description of all the topics covered in the document.
The Report was subjected to assurance by PricewaterhouseCoopers S.p.A..

Publication

In voluntary communications

Status

Complete

Attach the document

ESG_InvestorPresentation_Sept 2022_1.pdf

Page/Section reference

Governance: see page 24 "Responsible Governance"
Strategy: see page 13,14,15, 18, 19 "Scope 1 emission reduction waterfall", "Low carbon and sustainable product pipeline", "FUTURECEM is a key pillar of our sustainability strategy", "Capex: main initiatives for CO2 emissions reduction", "New breakthrough technologies: Carbon, capture, usage and storage"
Emission figures and target: see page 12 "Scope 1 emissions 2030 Decarbonization target"

Content elements

Governance
Strategy
Emissions figures
Emission targets

Comment

Periodically, the Group CEO engages investors and analysts to show the group performance in terms of CO2 emissions and providing updates about the implementation of the CO2 reductions declared by the Group. The presentations are also available in our corporate website.
https://www.cementirholding.com/sites/default/files/documenti/2022-09/ESG_InvestorPresentation_Sept%202022_1.pdf

C12.5

(C12.5) Indicate the collaborative frameworks, initiatives and/or commitments related to environmental issues for which you are a signatory/member.

	Environmental collaborative framework, initiative and/or commitment	Describe your organization's role within each framework, initiative and/or commitment
Row 1	European Climate Pact Task Force on Climate-related Financial Disclosures (TCFD) UN Global Compact Other, please specify (Wash Pledge)	<p>Cementir firmly believes that the power of collaboration enables the achievement of better results, for this reason is a signatory and member of different global initiatives, frameworks. Especially in the environmental field, this close participation allows the company to get in touch with innovative ideas, apply an approach that goes beyond compliance by anticipating regulations.</p> <p>In all the initiatives, mentioned below, the company is an active member by participating to webinars, scheduled meetings and getting in touch with additional initiatives supported by the referral network.</p> <p>For the future, we do not exclude to increase our memberships and to bring partnerships to life from other participants in the networks.</p> <p>UN GLOBAL COMPACT. Cementir Holding N.V. is a member of the UN Global Compact and made a formal commitment to supporting it and its principles. The Group is among approximately 15,000 signatory companies who are committed to working every day to develop a more responsible business, respectful of human and labour rights, promoting environmental protection and anti-corruption initiatives. Entering into such an international and active environment, in addition to reflecting the very nature of the company, enables the group to better pursue the achievement of the Sustainable Development Goals (SDGs) by 2030.</p> <p>WASH PLEDGE. Cementir is also a signatory of the Wash Pledge and is committed to provide access to safe water, sanitation and hygiene (WASH) at the workplace within its operations and supporting partners across its value chain and communities that surround its workplaces.</p> <p>TCFD. Cementir is publicly committed to adopting the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) of the Financial Stability Board by applying it to its Sustainability Report. The information (e.g climate risks and opportunities) are disclosed in a structured and consistent manner consistent with TCFD.</p> <p>EUROPEAN CLIMATE PACT. Cementir has also joined the European Climate Pact renewing its commitment to taking action against climate change .</p>

C15. Biodiversity

C15.1

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

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity	Scope of board-level oversight
Row 1	Yes, both board-level oversight and executive management-level responsibility	Due to increasing relevance of environmental and climate-related issues and sensibility of the Group, a specific Sustainability Committee has been established within the Board, dedicated to the Group's initiatives and engagement in this field and with responsibilities detailed in the related Charter. The Committee's purpose is: (i) to assist and advise the Board in its oversight of the Group's policies, programs and related risks however concerning sustainability matters; (ii) act under authority delegated by the Board with respect to setting out, monitoring, evaluating and reporting on policies and practices, management standards, strategy, performance and governance, relating to global and local sustainability matters, involving the Group; (iii) regularly interface with the Sustainability Department and the Group Management Team to respectively collect any required information and provide requested insights and advices and (iv) regular reporting to the Board. The committee meets at least quarterly.	<Not Applicable>

C15.2

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

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Biodiversity-related public commitments	Initiatives endorsed
Row 1	No, but we plan to do so within the next 2 years	<Not Applicable>	<Not Applicable>

C15.3

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

Impacts on biodiversity

Indicate whether your organization undertakes this type of assessment

No, but we plan to within the next two years

Value chain stage(s) covered

<Not Applicable>

Portfolio activity

<Not Applicable>

Tools and methods to assess impacts and/or dependencies on biodiversity

<Not Applicable>

Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)

<Not Applicable>

Dependencies on biodiversity

Indicate whether your organization undertakes this type of assessment

No, but we plan to within the next two years

Value chain stage(s) covered

<Not Applicable>

Portfolio activity

<Not Applicable>

Tools and methods to assess impacts and/or dependencies on biodiversity

<Not Applicable>

Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)

<Not Applicable>

C15.4

(C15.4) Does your organization have activities located in or near to biodiversity-sensitive areas in the reporting year?

No

C15.5

(C15.5) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity-related commitments
Row 1	No, we are not taking any actions to progress our biodiversity-related commitments, but we plan to within the next two years	<Not Applicable>

C15.6

(C15.6) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	No, we do not use indicators, but plan to within the next two years	State and benefit indicators Pressure indicators

C15.7

(C15.7) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
In voluntary sustainability report or other voluntary communications	Content of biodiversity-related policies or commitments Governance Biodiversity strategy	Please see the 2022 Sustainability Report (attached): - EXTRACTION ACTIVITIES, REHABILITATION AND BIODIVERSITY, page 126 - THE SUSTAINABILITY GOVERNANCE SYSTEM, page 78 Cementir Holding_Sustainability Report 2022 with Limited Assurance from PwC.pdf

C16. Signoff

C-FI

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

No additional comment.

C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Group CEO	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 understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please confirm below

I have read and accept the applicable Terms