2024 CLIMATE REPORT

HOLCIM

In 2024, we made progress across all our climate targets, making decarbonization a driver of profitable growth.

net zero 2024 CLIMATE REPORT

CLIMATE HIGHLIGHTS 2024

4%
Reduction in CO_2/net sales[1]

2%
Reduction in CO_2 net/ton of cementitious material[2]

7
CCUS projects in execution

10.2M
Tons of CDM recycled

8M
Tons of net-zero cement from 2030

+20%
Recycling of CDM[2]

[1] 2024 Scope 1 + Scope 2 CO_2 emissions per million of net sales compared to 2023.
[2] Compared to 2023.

CLIMATE LEADERSHIP
P4

DRIVING CIRCULARITY
P32

NATURE-POSITIVE
P42

Cover Image:
Thammasat University, Thailand is home to Asia's largest urban rooftop farm.
Here, Elevate's green roofing systems enabled an ecosystem with trees, plants and irrigation

CONTENTS

2 Chief Sustainability Officer's Letter

CLIMATE LEADERSHIP
6 Making progress across all decarbonization levers
8 Decarbonizing Holcim to become net zero
10 Our CO_2 footprint and pathway to net zero
12 Decarbonizing our solutions
16 Decarbonizing our energy mix
20 Holcim's value chain: Scope 3 emissions
22 Decarbonizing our mobility
24 Driving advanced technologies
26 Our ambitious CCUS roadmap
30 Advancing smart design

DRIVING CIRCULARITY
34 Circular construction driving profitable growth
36 Circular living
38 Regenerative revolution
40 Sustainable construction

NATURE-POSITIVE
44 Building a nature-positive future

ADVOCACY AND ENGAGEMENT
50 Advocacy positions and transparency
54 Just Transition

CLIMATE REPORTING
58 Climate governance
62 Climate and nature-related risks and opportunities
80 Scenario analysis
84 Performance data tables

LEADING IN ESG DISCLOSURES & TRANSPARENCY

Read more about our transparent ESG disclosures in the *2024 Integrated Annual Report.*

- Art. 964b Swiss Code of Obligations. Read pages 410–411
- EU Taxonomy. Read page 244
- TCFD. Read page 216
- TNFD. Read page 216

BUILDING THE SUSTAINABLE CITIES OF THE FUTURE

With our sustainable building solutions, Holcim is helping transform how the world builds for people and the planet.

Nollaig Forrest
Chief Sustainability Officer

With our sustainable building solutions, Holcim is committed to building cities that work for all. With 2.5 billion more people expected to live in cities by 2050, we are working to build the homes and infrastructure they will need in an advanced, resilient and future-proof way.

Partnering across the building value chain, we are scaling the adoption of our sustainable materials in the construction phase, our advanced roofing and insulation systems to make buildings more energy-efficient in operation, and driving circular construction at end of use – by recycling materials in key metropolitan areas where we operate.

Taking a rigorous science-based approach, we are focused on delivering against our net-zero 1.5°C-aligned targets, while continuing to further our reporting transparency to ensure alignment with the Corporate Sustainability Reporting Directive (CSRD).

Delivering on our targets

In 2024, we made progress across all our targets, making decarbonization a driver of profitable growth. We continued to expand our range of technologies – from innovative low-emission materials such as calcined clay and decarbonized energy to advanced technologies, including hydrogen fuel boosting and carbon capture, utilization and storage.

With our seven large-scale carbon capture projects in Europe, engineered to produce eight million tons of net-zero cement per annum by 2030, we are on track to make net-zero cement and concrete a reality at scale this decade.

Through Holcim MAQER Ventures, we work with the most innovative startups to scale exciting technologies in the built environment – from 3D printing to advanced mineralization. In 2024, we announced investments in four promising startups (see page 32 in the *2024 Integrated Annual Report*).

Driving circular construction

Circular construction is another key driver of profitable growth. It enables us to reduce primary material use, generate revenue from end-of-use materials and offer advanced sustainable solutions, from decarbonized raw materials for cement and concrete to high-quality aggregates.

Scaling circular construction, we made four value-accretive acquisitions in this space in 2024. We now operate over 150 recycling centers worldwide, and increased our recycling of construction demolition materials by 20% compared to last year.

Bringing nature into cities

Nature matters to all of us at Holcim. By bringing more of it into cities – from green roofs to permeable concrete – we can reduce urban heat and improve water management and air quality, while enabling friendly public spaces for people to enjoy. To showcase how leading cities worldwide are managing nature to increase their resilience, we partnered with IUCN to publish the report "Catalyzing Biodiversity on Buildings".

We advanced our Nature Strategy in 2024, working with the Science Based Targets Network (SBTN), and are among the first three companies worldwide to set science-based targets for nature. At COP16 in Colombia, we announced our first target focused on water, to be scaled up across our operations.

Building for people and communities

Everything we do at Holcim, we do for people. Respect for human rights is fundamental to the way we and our business partners operate. Going beyond this we strive to create a positive impact on communities worldwide – investing in social initiatives focused on housing, infrastructure, education, skills and health.

One of the key themes at COP 29 in Baku was resilient housing, and we are working to increase its availability for vulnerable populations – from Morocco and Lebanon to Spain. Working with the Norman Foster Foundation, we want to make sustainable building possible for all. Together we unveiled a new prototype "Essential Home" last year, which we will scale in Latin America in 2025 (see page 118 in the *2024 Integrated Annual Report*).

Sustainability is everyone's business at Holcim, and in 2024 we again put business to work as a force for good. Thank you to all our teams, from Sustainability and Innovation through to Health, Safety & Environment, who make the magic happen. Their work won us external accolades – from CDP, who named us on its A List for Climate, and the World Economic Forum, to Fast Company, Reuters and more.

Partnering across the value chain

On our mission to decarbonize building, Holcim can't act alone, which is why we forge strong collaborations across the value chain – with engineers, architects, cities and more. A landmark development was the launch of the Holcim Sustainable Construction Academy – a free online learning journey for built environment professionals, developed with leading external experts.

Together, let's transform the way the world builds to accelerate the shift to a more sustainable built environment, for people and the planet.

NOLLAIG FORREST
Chief Sustainability Officer

TOWARD FULL CSRD ALIGNMENT

Holcim made further progress toward full CSRD alignment with new disclosures and a dedicated index. We conducted and published a new double materiality assessment (DMA) that confirms our strategic priorities.

See our CSRD content index on page 397 in the *2024 Integrated Annual Report*

CLIMATE LEADERSHIP

Maggie Daley Park in Chicago, U.S. attracts three million visitors annually, and was landscaped using Holcim's building solutions

IN THIS SECTION

6 Making progress across all decarbonization levers
8 Decarbonizing Holcim to become net zero
10 Our CO_2 footprint and pathway to net zero
12 Decarbonizing our solutions
16 Decarbonizing our energy mix
20 Holcim's value chain: Scope 3 emissions
22 Decarbonizing our mobility
24 Driving advanced technologies
26 Our ambitious CCUS roadmap
30 Advancing smart design

CLIMATE

MAKING PROGRESS ACROSS ALL DECARBONIZATION LEVERS

ACCELERATING GREEN GROWTH IMPACT DASHBOARD	**2024 IMPACT**
ECOPACT READY-MIX NET SALES	29%
CONSTRUCTION DEMOLITION MATERIALS RECYCLED TONS	10.2M
GREEN CAPEX CHF	534M
SUSTAINABLE FINANCE	40%
REDUCTION CO_2 NET/T CEM YEAR-ON-YEAR	2%

RECOGNIZED CLIMATE AND NATURE LEADERSHIP

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

First in sector with SBTi-validated net-zero targets

SCIENCE BASED TARGETS NETWORK
GLOBAL COMMONS ALLIANCE

One of the first three companies with SBTN validated targets

TCFD TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

Signatory since 2017 with aligned reporting

Climate CDP A List 2024

Included in CDP's 2024 A List for Climate

2025 TARGETS	BY 2030
25%	
10M	
500M	
40%	
2%–4%	

AMBITIONS FOR A 1.5°C FUTURE

8M
Tons of net-zero cement per annum

2BN
Investment in CCUS CHF

BUSINESS AMBITION FOR 1.5°C | OUR ONLY FUTURE

TNFD Taskforce on Nature-related Financial Disclosures

Taskforce member and early adopter

REUTERS EVENTS™

Reuters Events Business Transformation Award 2024

Co-funded by the European Union
Emissions Trading System Innovation Fund

Seven CCUS projects selected for EU grants

CLIMATE

DECARBONIZING HOLCIM TO BECOME NET ZERO

We take a science-driven approach to becoming a net-zero company. In 2024, we continued making strong progress toward our 1.5°C-aligned targets.

Our net-zero pledge
With climate action at the core of Holcim's strategy, we have 2030 and 2050 net-zero targets in line with the 1.5°C framework validated by the Science Based Targets initiative (SBTi) for all three scopes.

Our Climate Policy
Holcim's approach to accelerating climate action while enabling a Just Transition and climate adaptation are described in our Climate Policy. The main principle of our policy is the delivery of our actions in a rigorous, science-based manner to execute our net-zero journey. We comply with local, state, federal and national regulations in all our operations and advocate for collective actions with relevant stakeholders.

Read more about climate and nature-related risks and opportunities on pages 62–78

Say on Climate

Holcim greatly values shareholder feedback on our climate transition plan. For the fourth consecutive year, we will submit our Climate Report for an advisory vote at our Annual General Meeting. In previous years, shareholders' insights have been instrumental in enhancing our disclosures and refining our strategy.

We actively engage with our shareholders on the Climate Report and incorporate their feedback to improve our reporting. This collaboration has led to significant enhancements, such as the inclusion of all 15 categories of Scope 3 emissions in our disclosures.

LEADING CLIMATE ACTION FOR YEARS: PIONEERING DECARBONIZATION WHILE SHAPING INDUSTRY STANDARDS

2020	2021	2022	2023–2024	2024
BUILDING FOR net zero PEOPLE & PLANET	SCIENCE BASED TARGETS – DRIVING AMBITIOUS CORPORATE CLIMATE ACTION	TCFD	Co-funded by the European Union	CALCINED CLAY
First in sector to sign "Business Ambition for 1.5°C" initiative with SBTi-validated 2030 targets.	First in sector with SBTi-validated 2030 and 2050 net-zero targets.	First in sector to disclose a TCFD aligned climate report and give shareholders "Say on Climate".	Seven Holcim breakthrough carbon capture, utilization, and storage (CCUS) projects selected for grants by EU Innovation Fund.	Holcim deployed 22 calcined clay projects (in Europe, Africa and Latin America), allowing us to produce cement with up to 50% less CO_2.

OUR SBTi TARGETS ALIGNED WITH 1.5°C

Holcim commits to reaching net-zero greenhouse gas emissions (GHG) across the value chain by 2050.

Near-term targets

Holcim commits to reduce gross Scope 1 and 2 GHG emissions by 26.2% per ton of cementitious materials by 2030 from a 2018 base year.[1] This is equivalent to a 25% reduction in absolute emissions within the same timeframe.

By 2030, Holcim commits to reduce gross Scope 3 GHG emissions per ton of purchased clinker and cement by 25.1%, from a 2020 base year.

In addition, Holcim commits to reduce Scope 3 GHG emissions from fuel and energy-related activities by 20% per ton of purchased fuels and Scope 3 GHG emissions from downstream transport and distribution by 24.3% per ton of materials transported by 2030.[2]

Long-term targets

Holcim commits to reduce Scope 1 and Scope 2 GHG emissions by 95% per ton of cementitious materials by 2050 from a 2018 base year.[1] Holcim commits to reduce absolute Scope 3 GHG emissions 90% by 2050 from a 2020 base year.[3]

With these upgraded targets, we have confirmed our commitment to decarbonize building following the most advanced science.

Holcim has not financed climate change mitigation projects outside the value chain through the purchase of carbon credits to achieve GHG emission reductions or removals. Holcim is committed to becoming a net-zero company by 2050, aligned with SBTi guidelines.

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

BUSINESS AMBITION FOR 1.5°C

OUR ONLY FUTURE

	Target base year 2018	2024	2030	2050
SCOPE 1 KG CO_2 / T cementitious	623	582	−23.3%[4]	−95%
	590 net	538 net	420 net	net zero
SCOPE 2 KG CO_2 / T cementitious	46	32	−65%[4]	
SCOPE 3	2020			
PURCHASED CLINKER AND CEMENT KG CO_2 eq / T purchased	710	705	−25.1%	−90% Absolute emissions of all Scope 3 categories
PURCHASED FUELS KG CO_2 eq / T purchased	286	285	−20%	net zero
DOWNSTREAM TRANSPORTATION KG CO_2 eq / T material transported	11	9	−24.3%	

[1] The target boundary includes land-related emissions and removals from bioenergy feedstocks.
[2] These targets were validated by SBTi in alignment with a 2°C scenario.
[3] Target boundary includes 95% of Scope 1 and 2 emissions and 90% of Scope 3 emissions, per SBTi standard.
[4] Equivalent to the SBTi validated combined Scope 1 and 2 ambition of -26.2%.

CLIMATE

OUR CO_2 FOOTPRINT AND PATHWAY TO NET ZERO

Holcim is committed to reducing its carbon footprint across its operations and value chain (Scopes 1, 2 and 3), to become a net-zero company by 2050.

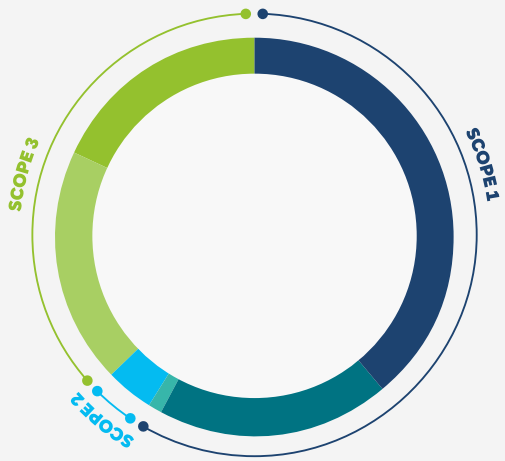
Scope 1
Scope 1 emissions account for 60.9% of our footprint and are at the core of our emissions reduction strategy. Scope 1 includes all emissions released directly from our operations. Most come from cement production. 39.8% of our emissions are generated by the raw materials we use to produce clinker. Fuel combustion necessary to heat cement kilns is another significant emissions source. A small share of Scope 1 emissions come from Solutions & Products, Aggregates and Ready-mix (RMX) operations.

Scope 2
Scope 2 emissions account for 3.6% of our carbon footprint. Scope 2 includes indirect emissions from the generation of purchased electricity consumed in the company's owned or controlled equipment.

Scope 3
Scope 3 emissions account for 35.5% of our carbon footprint. Scope 3 includes all other indirect emissions generated in our value chain, such as for transportation as well as the extraction and production of purchased materials and fuels. Scope 3 also includes direct emissions from non-consolidated companies and investments.

For more on our Scope 3 emissions, see page 20

OUR CO_2 FOOTPRINT



SCOPE 1

Raw material calcination Cement production	39.8%
Fuel combustion Cement production	19.8%
Power generation, Aggregates, Ready-Mix and Solutions & Products operations	1.3%

SCOPE 2

Purchased electricity	3.6%

SCOPE 3

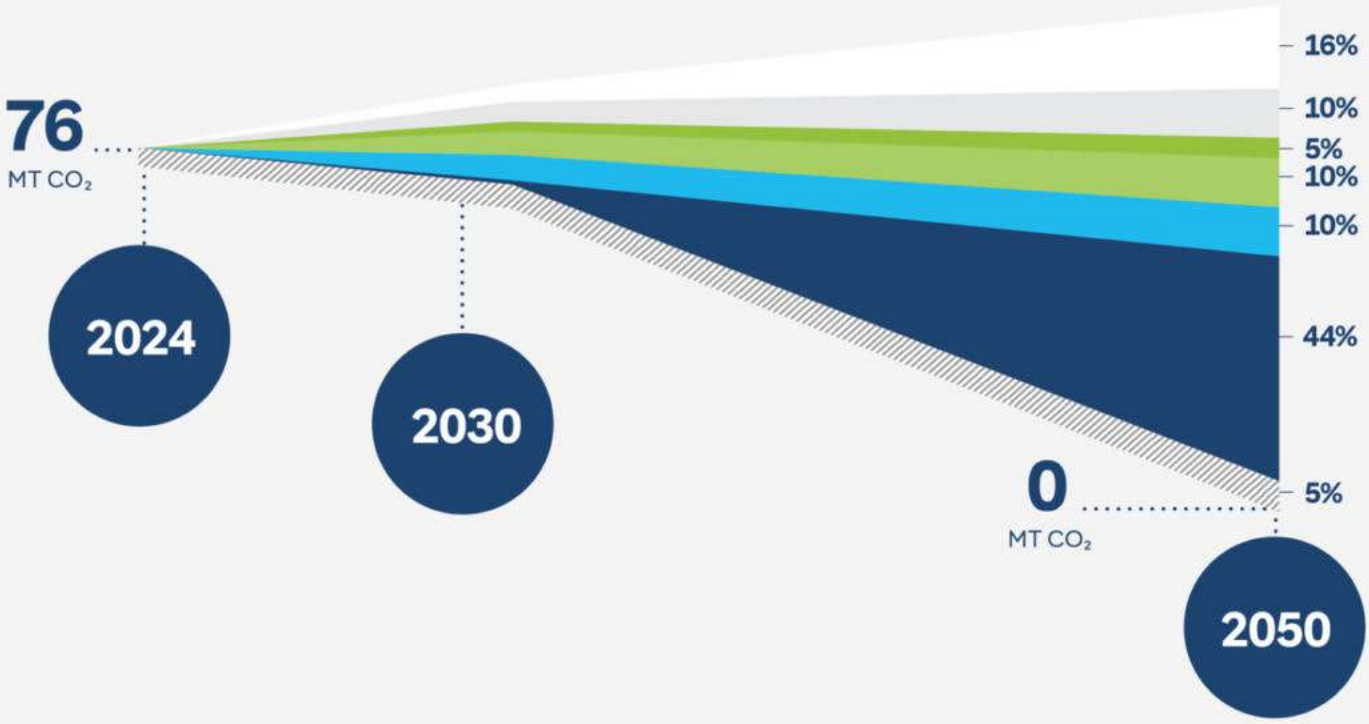
Upstream and downstream emissions	18.8%
Investments	16.7%

HOLCIM'S PATHWAY TO NET ZERO

Our pathway to 2030 and 2050 is clear. To reach our 2030 Scope 1 and Scope 2 commitments, we will reduce our clinker factor, use alternative fuels and raw materials, and increase our use of renewable energy. We will invest in proven technologies that produce positive returns.

To reach our 2050 targets, we will continue using our traditional levers while also scaling up carbon capture, utilization and storage (CCUS) and other advanced technologies. Our net-zero pathway does not rely on offsets.

OUR ABSOLUTE SCOPE 1 + SCOPE 2 EMISSIONS PATHWAY



Efficiency gains in design and construction	Smart design and low-carbon formulation of concrete moves the market to more carbon-efficient construction.
Efficiency gains in concrete	
Decarbonized electricity	Increase the share of decarbonized electricity through power purchase agreements and on-site renewable electricity, together with decarbonization of the electrical grid.
Less clinker in cement	Replace clinker in our final cement products with mineral components, such as calcined clay and novel binders.
Less CO_2 in clinker	Produce clinker with decarbonized raw materials, increasing energy efficiency and transitioning to alternative fuels.
CCUS and other advanced technologies	Deploy advanced technologies such as carbon capture, utilization and storage (CCUS) and other breakthrough process innovations, such as electrification or hydrogen as an alternative fuel, which decrease dependency on fossil fuels.
Passive recarbonation	Natural reabsorption of CO_2 during the lifetime of concrete products.

CLIMATE

DECARBONIZING OUR SOLUTIONS

Holcim R&D experts worldwide are harnessing their formulation expertise to decarbonize our concrete and cement.

ECOPact and ECOPlanet both offer CO_2 reductions of at least 30% compared to standard (CEM I/OPC) local concrete and cement, respectively.

Alternative raw materials

The majority of emissions from cement production result from the calcination of limestone into clinker. This part of the process is our largest source of CO_2 emissions, accounting for 40% of our total carbon footprint.

Using decarbonized materials in clinker production reduces emissions in two ways: it emits less CO_2 and requires less heat than conventional materials.

- Basic elements (Ca, Si, Fe, Al, S) enable the supply of the essential minerals required for clinker chemistry and safeguard natural resources in quarries.
- Recycled construction demolition materials (CDM) yield cement paste that has already been decarbonated, meaning process-related carbon emissions are lower.
- Waste from other industries, including fly ash and steel slag, can replace virgin limestone and avoid landfill.

We are working with innovative companies to keep raising standards and developing new alternative material streams.

AI-POWERED CEMENT FORMULATION

In 2024, we launched OptiCEM, a digital tool to optimize cement formulation powered by artificial intelligence (AI) and materials science. OptiCEM uses AI to analyze vast amounts of data, such as plant specifications and raw material properties, to generate formulations optimized for KPIs including cost and carbon footprint.

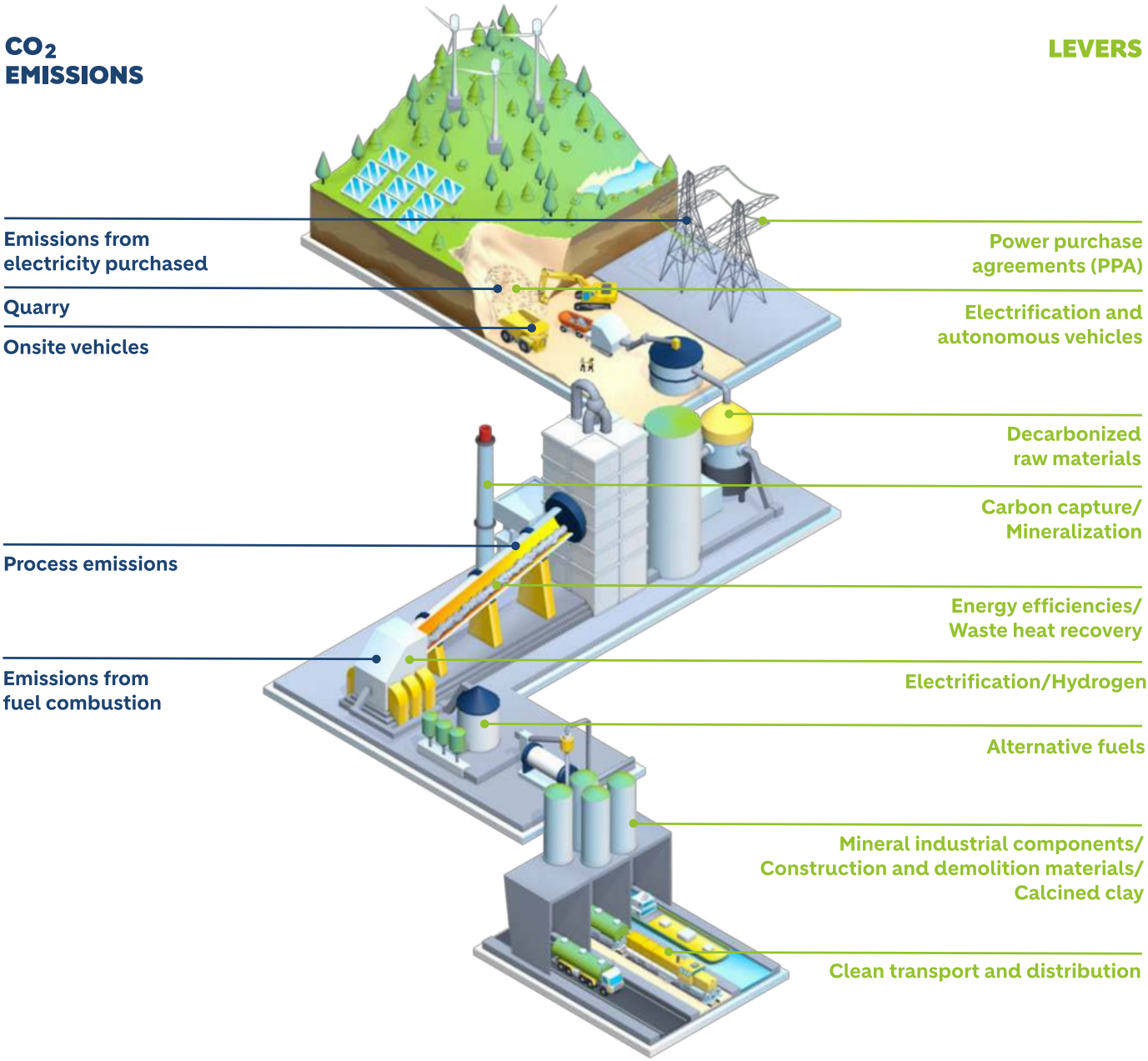
The tool allows Holcim teams around the world to scale use of low-emission alternative raw materials and mineral components. By reducing the need for laboratory tests and industrial trials, OptiCEM accelerates the product development process.

In the first six months of deployment, OptiCEM generated over 1,400 new cement formulations, saving more than 39,000 days of curing time and over CHF 400,000 in costs.

Our AI-powered cement formulation tool, OptiCEM, helps accelerate low-carbon product development

HOW WE ARE DECARBONIZING HOLCIM

From our products to our process



	Base year 2018	2024	Target 2025	Target 2030	Target 2050
SCOPE 1 KG CO_2 net/T cementitious	590	538	520	420	net zero
SCOPE 2 KG CO_2/T cementitious	46	32	–	16	

Mineral components

Beyond reducing the level of CO_2 in the clinker, our Scope 1 emissions pathway aims to reduce the level of clinker in our cement. We aim to decrease our clinker factor from 72% currently to below 68% by 2030 and reduce it further by 2050.

To achieve this, we partially replace the clinker in our cement with mineral components, significantly reducing the carbon intensity of the final product.

Holcim uses four major categories of mineral components to reduce emissions from our cement and concrete mixes:

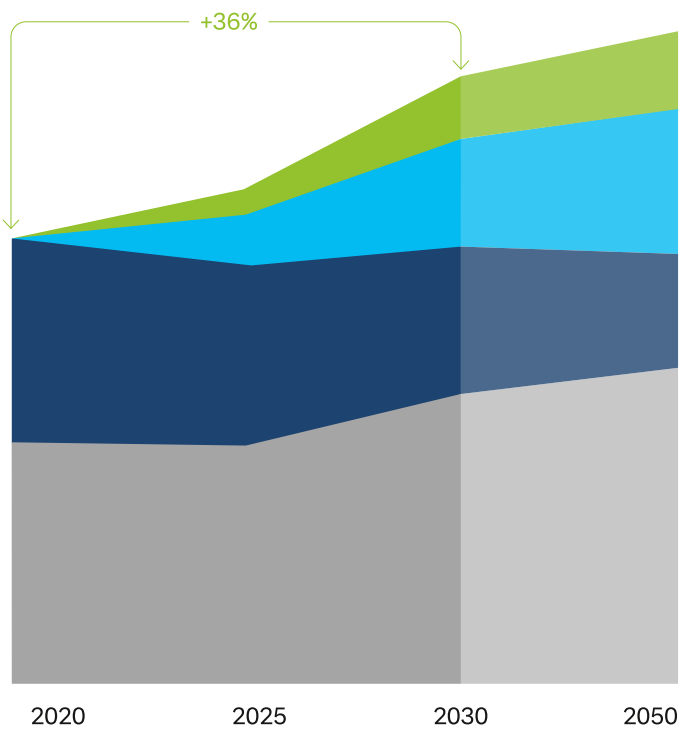
- Recycled cement paste from CDM.
- Innovative mineral components such as calcined clay, pozzolana and reclaimed ashes.
- Waste from other industries, including slag and fly ash.
- Traditional mineral components such as limestone and gypsum.

In the coming decades, we expect CDM and innovative mineral components to gradually replace slag and fly ash.

To this end, we are investing in advanced crushing and processing technology to fully recycle CDM. In 2024, we started using CDM as a mineral component in France, Romania, Germany, Spain and Austria, and scaled it up in Switzerland.

We are also accelerating the use of other innovative mineral components like calcined clay, which can reduce the footprint of cement by up to 50%, with operations currently advancing in Europe and Latin America.

MINERAL COMPONENTS IN EUROPE (M TONS)



GROWTH ENABLERS

Construction demolition materials
Recycling fines as cementitious material in low-carbon cement.

Innovative mineral components
Calcined clay, pozzolana, reclaimed ashes will gain in significance as a component of cement in the future.

Slag and fly ash
After 2025, the supply of slag and fly ash is expected to decrease due to lower production of underlying related materials (steel/coal). Lower volumes on the market will mean a cost increase.

Traditional mineral components
Limestones and gypsum (mainly) are and will continue to be a significant share of mineral components due to high availability and lower cost versus clinker.

Our new dedicated calcined clay production line in Cížkovice, Czech Republic, is slated for completion in 2026

Scaling up calcined clay

Calcined clay is a mineral powder obtained through the calcination of natural clays at a relatively low temperature. Acting as a replacement for limestone-based clinker in the final cement, it allows us to produce cement with up to 50% less CO_2 than standard cement.

Since clay is one of the most abundant natural resources globally, calcined clay is a highly scalable solution that we are increasingly using in our formulations. We now produce 10 calcined-clay based cements at nine plants across Europe, Latin America and North Africa.

Holcim is expanding production of calcined clay across our regions to reduce CO_2 emissions, and from 2026, the new EU Emissions Trading System (ETS) "binder" benchmark will favor calcined clay production – further supporting our plan to develop new projects in Europe.

In 2024, we started constructing a new dedicated calcined clay production line at our plant in Cížkovice in the Czech Republic, which will receive financial support from the Czech Ministry of Environment and is slated for completion in 2026.

In France, our Saint-Pierre-la-Cour calcined clay operation – the first of its kind in Europe – launched its first calcined-clay based cement in the second quarter of 2024, while our plants in La Malle, France, and Sagunto, Spain also launched cements with calcined clay last year.

The latest Holcim site to launch calcined clay production is our plant in Guayaquil, Ecuador, which will produce up to 465,000 tons of calcined clay per year.

Several building projects using Holcim's calcined clay-based cements were completed in 2024, including the Marseille Marina for the Paris Olympic Games.

71.7%

Clinker factor in 2024

10.8%

Alternative raw materials in cement

CLIMATE

DECARBONIZING OUR ENERGY MIX

Holcim is shifting to lower-carbon energy across our value chain – from alternative fuels and renewable electricity to waste heat recovery systems.

Optimizing our energy use
We are investing to modernize our kilns and lower our CO_2 emissions. For example, at our plant in Obourg, Belgium, we are installing an innovative oxyfuel cement kiln that significantly reduces CO_2 emissions. In combination with CCUS (see page 24), this will allow the plant to produce fully decarbonized cement from 2028.

Additionally, as part of Holcim's Plants of Tomorrow initiative, we are taking further steps to adopt the latest technologies in our plants. Using digital solutions, we are creating connected, smart and energy-efficient sites that will complement our other decarbonization levers.

Using lower-carbon fuels

The International Energy Agency anticipates that fossil fuel consumption will peak by 2030. Our transition to alternative fuels involves substituting traditional fossil fuels used in cement kilns, which include coal, petcoke and natural gas.

With waste volumes increasing globally, our Geocycle business offers us a scientifically proven, economical and ecological solution in line with international standards. We are closing material loops and reducing the carbon footprint of the clinker manufacturing process by transforming non-recyclable waste into high biogenic carbon fuels, thus replacing traditional fossil fuels.

In 2024, 31.7% of Holcim's thermal energy demand for clinker production came from alternative lower-carbon fuels. By further investing in waste treatment and co-processing facilities, we aim to increase the thermal substitution rate to 50% by 2030.

Currently, nine of our facilities in Europe already use alternative fuels for more than 80% of their energy.

In addition, as we progress toward net zero, advanced technologies such as electrification and use of hydrogen as an alternative fuel will account for an increased share of our decarbonization efforts.

Increasing biomass content

Our focus is on innovation to further reduce carbon emissions by increasing the biomass content in the fuels we use. To optimize alternative fuel use, we deploy near-infrared spectroscopy technology to analyze alternative fuel properties during kiln feeding. This enables us to eliminate quality variations and use an optimal fuel mix to reduce CO_2 emissions.

31.7%
of thermal energy sourced from alternative lower-carbon fuels

9
Plants in Europe running on over 80% alternative fuels

3.1M
Tons of alternative fuels processed in Europe in 2024

Geocycle transforms waste into resources to help municipalities and industries meet their sustainability goals

Innovations to boost alternative fuels

We are exploring oxygen and hydrogen as a booster in our kilns. Using a small amount of oxygen and hydrogen as a booster can enhance combustion, which is expected to increase the utilization of high biogenic carbon waste fuels and increase clinker production rates.

Holcim Mexico is piloting oxyhydrogen boosting at our Ramos Arizpe plant. Working with a local partner, Knergy, we have installed two electrolyzers at the plant for controlled oxyhydrogen injection. We aim to create technical knowledge in the region that can be replicated and scaled across Latin America.

At our plant in La Malle, France we successfully trialed the use of hydrogen as an alternative fuel. We were the first in our industry to reach an injection rate of 58%. With the remaining fuel mix coming from biogenic sources, this meant our kiln was powered by carbon-neutral fuels.

Driving decarbonization and circularity

As a dedicated part of Holcim, Geocycle provides sustainable waste management solutions to municipalities and industries worldwide. Geocycle maximizes resource value – recycling when possible, valorizing non-recyclable materials as well as setting and promoting industry-leading standards.

Geocycle materials reduce our carbon footprint, enhance circularity and preserve natural resources. Our global network of advanced pre-treatment platforms provides scientifically proven and environmentally friendly solutions in countries with Holcim cement operations.

In 2024, Geocycle supported Holcim's decarbonization and circularity targets by recycling 14.7 million tons of waste and byproducts for use as decarbonized energy or in raw materials.

Shifting to clean electricity

Electricity makes up a significant proportion of our energy use. To decarbonize electricity, we are shifting to clean energy sources such as solar, hydro, wind, biomass and geothermal power wherever possible.

Several factors impact the electricity value chain, including the availability of renewable power, transport and grid infrastructure and geographic conditions. At Holcim, we take a tailored, local approach to decarbonizing our electricity use. Working with private companies and local officials, we leverage our diverse energy portfolio to decarbonize electricity at scale.

Leveraging waste heat recovery

Waste heat recovery ultimately serves to capture excess heat generated within a facility and repurpose it in various applications to optimize energy efficiency. Holcim's waste heat recovery systems are specifically engineered to use excess heat produced by our cement kilns and convert it into electricity.

We presently have seven operational waste heat recovery units, producing 262 gigawatt hours of clean electricity. This translates into a carbon reduction of 377,000 tons annually. Our goal is to significantly increase the number of waste heat recovery units by 2030.

Scaling up renewable electricity

We signed our largest green energy contract to date in 2023 to power our operations in Germany with wind energy. Our plants in Colombia are setting an example by operating with 100% renewable energy. Globally, we aim to reduce the carbon intensity of our Scope 2 emissions by 65% by 2030 against a 2018 baseline.

We are developing renewable energy sources on our sites to reduce our dependence on electricity sources that generate CO_2 emissions.

Harnessing solar power

We continue to make progress in rolling out solar power across our operations:

- In Belgium, we plan to operate our first floating photovoltaic installation from 2025. It is designed to supply 15% of our Obourg plant's electricity.
- In Hungary, 31 gigawatt hours of solar energy will be generated annually starting in January 2025.

Solar panels power the Holcim Innovation Center in Lyon, France

Our Lägerdorf plant in Germany is powered using electricity from Holcim's own wind park

Harnessing wind power

Through collaboration with our partners in the wind energy sector, we are installing and operating wind farms on our sites to generate our own renewable energy. For example, three wind turbines at our plant in Paulding, U.S., provide around 20% of the site's electricity, reducing CO_2 emissions by 9,000 tons per year.

Our plants in Germany are at the forefront of harnessing wind energy to power our operations. Thanks to their advantageous geographical locations, our Lägerdorf (Schleswig-Holstein) and Höver (Lower Saxony) plants utilized onshore wind power in 2024 for part of their electricity needs.

Leveraging power purchase agreements

We are growing our renewable energy portfolio through partnerships with power producers. Power purchase agreements (PPAs) are long-term contracts for electricity supply between Holcim, as a corporate buyer, and renewable power suppliers. PPAs typically specify pricing, electricity quantities and renewable sources.

We are rolling out renewable energy PPAs around the world:

- In Europe, we secured additional long-term supply from renewable sources in Greece, Spain, Belgium and Austria. Ongoing projects in Hungary, Romania, Belgium and Germany are nearing completion, and will start operating in 2025.
- In North America, a virtual PPA began operating at our plant in Exshaw, Canada. In 2025, we expect two further PPAs to start supplying solar power for our U.S. plants in Alpena and Portland.
- In the Philippines, we entered into a PPA to supply geothermal power starting in Q3 2024 and began the installation of several rooftop solar projects, which will enter into operation by Q2 2025.
- In Latin America, we finalized a number of rooftop solar projects in Mexico, Guatemala and Costa Rica.

HOLCIM'S VALUE CHAIN: SCOPE 3 EMISSIONS

Scope 3 emissions are all indirect emissions associated with upstream and downstream activities of consolidated companies, as well as the direct and indirect emissions of our non-consolidated companies.

Reducing Scope 3 emissions requires us to mobilize our full organization, make smart purchasing decisions, and engage other companies across the value chain in building a net-zero future.

Fuels and energy
These are the "cradle-to-gate" emissions from purchased fuels and energy. We are reducing these emissions by replacing traditional fossil fuels with locally sourced, alternative and non-extractive fuels.

Downstream transportation
These CO_2 emissions come from transporting our materials to customers, between factories and distribution terminals. We are reducing these by optimizing routes and loads, moving volumes from roads to waterways or rail, and deploying fleets powered by electricity and more eco-friendly fuels.

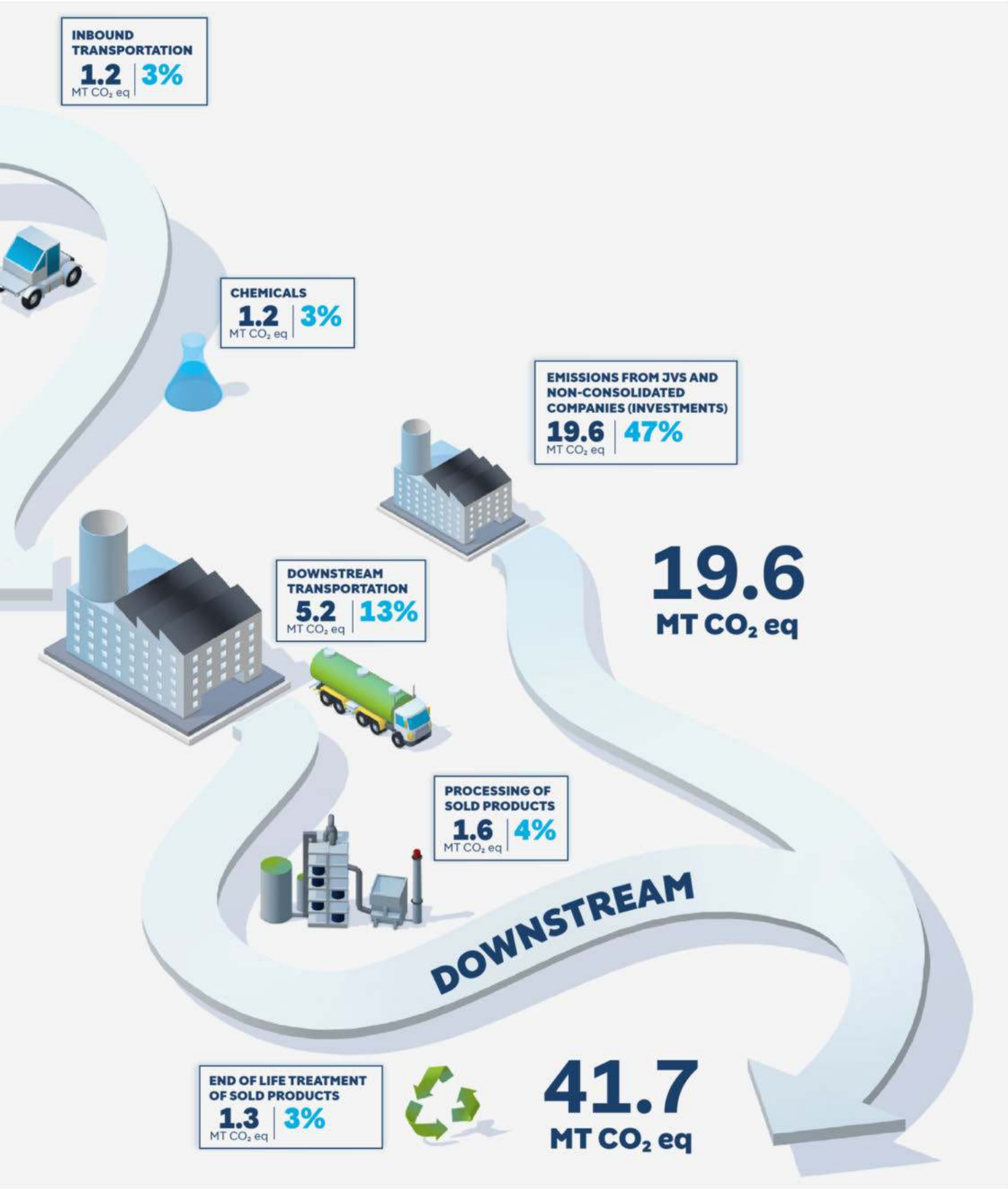
Purchased clinker and cement
We require our clinker and cement suppliers to provide the CO_2 information related to their products, for example, through Environmental Product Declarations (EPDs). This enables us to accelerate the purchase of low-carbon products.

Other products and services purchased
All other products and services purchased account for 21% of our total Scope 3 emissions. We include CO_2 requirements in the tendering process and integrate CO_2 as a parameter in our total cost of ownership models used to drive purchasing decisions.

Investments and joint ventures
We account for Scope 1 and 2 emissions from our principal cement-producing investments and joint ventures in proportion to our effective participation. These include:

Company	Country of incorporation or residence	Effective participation (percentage of interest)
Cement Australia Holdings Pty Ltd	Australia	50.0%
Huaxin Cement Co. Ltd	China	41.8%
Lafarge Maroc S.A.S.	Morocco	50.0%
Readymix Qatar L.L.C	Qatar	49.0%

Our principal cement-producing joint ventures have 2030 carbon reduction targets in line with SBTi ambitions. We are actively engaging with them to have their targets validated by the SBTi.


INBOUND TRANSPORTATION
1.2 MT CO_2 eq
3%
CHEMICALS
1.2 MT CO_2 eq
3%
EMISSIONS FROM JVS AND NON-CONSOLIDATED COMPANIES (INVESTMENTS)
19.6 MT CO_2 eq
47%
19.6 MT CO_2 eq
DOWNSTREAM TRANSPORTATION
5.2 MT CO_2 eq
13%
PROCESSING OF SOLD PRODUCTS
1.6 MT CO_2 eq
4%
DOWNSTREAM
END OF LIFE TREATMENT OF SOLD PRODUCTS
1.3 MT CO_2 eq
3%
41.7 MT CO_2 eq

CLIMATE

DECARBONIZING OUR MOBILITY

We are transitioning to low-carbon mobility from quarry to city by adopting more sustainable and efficient transport options.

Downstream transportation currently accounts for 13% of our total Scope 3 carbon emissions. To reduce these emissions, we are leveraging four pillars:

- Transitioning to low-emission trucks.
- Using rail and waterways where possible.
- Optimizing vehicle dispatch, including the use of lightweight trailers.
- Encouraging eco-driving: adjusting driving behaviors to reduce fuel consumption.

By implementing these measures, and encouraging our customers and suppliers to do likewise, we aim to reduce Scope 3 downstream transportation emissions per ton of material transported by 24.3% by 2030 compared to 2020.

Driving demand for clean technologies
As a founding member of the First Movers Coalition, Holcim is committed to advancing low-carbon solutions.

In 2024, we announced that we will deploy 1,000 new Mercedes-Benz electric trucks in Europe. Holcim also entered an agreement with Putzmeister Oceania to trial the first Australian Design Rules-approved, 100% electric concrete truck mixer in the country, the SANY eMixer.

Such strategic partnerships help us assess the feasibility of integrating clean technologies into our logistics network to reduce Scope 3 emissions.

Holcim trialed the first Australian Design Rules-approved, 100% electric ready-mix truck in Australia

GREEN MOVEMENT

HYDROGEN MOBILITY WITH MERCEDES-BENZ

Holcim joined forces with Mercedes-Benz Trucks to pilot their GenH2 hydrogen-powered trucks, a game-changer in low-carbon mobility. Starting mid-2024, these advanced fuel-cell trucks were deployed on long-haul routes in Germany, including operations by Gerdes + Landwehr, a Holcim logistics partner.

With a range exceeding 1,000 kilometers and payloads comparable to diesel trucks, the GenH2 represents a significant step toward decarbonizing heavy-duty transport. It offers Holcim the opportunity to test hydrogen technology in real-world operations, to assess performance, reliability and scalability.

"We are proud to pioneer hydrogen-powered trucks in our logistics network, and support Holcim's commitment to sustainable and innovative supply chains."

MATHAN DURAIRAJ
Head of Group Logistics

Decarbonizing our vehicle fleet

From autonomous electric vehicles in quarries to heavy-duty electric trucks for material distribution, we are transforming our fleet to meet ambitious decarbonization goals – using electric, hydrogen and biofuel-powered solutions across our logistics operations.

In 2024, we ran over 50 electric truck pilots with leading equipment manufacturers such as Volvo, Daimler, Renault and SANY, in addition to the hydrogen-powered truck pilot in partnership with Mercedes-Benz Trucks.

Alongside these innovations, the integration of biofuels such as BioCNG and BioLNG across our fleet is accelerating the reduction of emissions.

Transforming logistics with digital solutions and AI

Holcim is transforming its global logistics by integrating advanced digital solutions and AI-driven strategies to optimize operations and reduce Scope 3 emissions, through the following levers:

- AI-driven planning: Improved forecasting aligns supply and demand, optimizing fleet use and reducing unplanned, emission-heavy moves.
- Network optimization: AI designs efficient routes, cutting transport distances and fuel consumption.
- Dispatch optimization: Smart systems consolidate shipments, reduce truck usage and minimize empty kilometers.
- Advanced analytics: Our global Transport Analytics Center (TAC), spanning over 50 countries, delivers real-time insights, empowering dispatch managers to optimize resources, cut energy use and reduce emissions across our logistics network.

CLIMATE

DRIVING ADVANCED TECHNOLOGIES

Holcim is driving the industry's broadest range of decarbonization technologies to execute on its 2030 and 2050 net-zero targets. Carbon capture, utilization and storage (CCUS) is a key decarbonization lever.

Decarbonizing cement production
Decarbonizing cement and concrete is at the core of Holcim's net-zero journey. The first step is to decarbonize our formulations and energy mix (see page 12).

In product formulations, we are using low-emission raw materials from calcined clay to construction demolition materials (CDM). We are decarbonizing our energy mix using Geocycle alternative fuels, such as biomass, and harnessing renewable electricity generated by wind and solar. For the remaining CO_2 emissions, we are advancing CCUS technologies to become net zero.

CCUS enables us to capture CO_2 emissions before they are released into the atmosphere. This CO_2 can then be used in various applications, such as the production of low-carbon fuels or materials. Alternatively, we can store it safely underground in deep geological formations.

Carbon capture technologies

We are developing and assessing mature carbon capture technologies for cement production to maximize our flexibility across our global footprint.

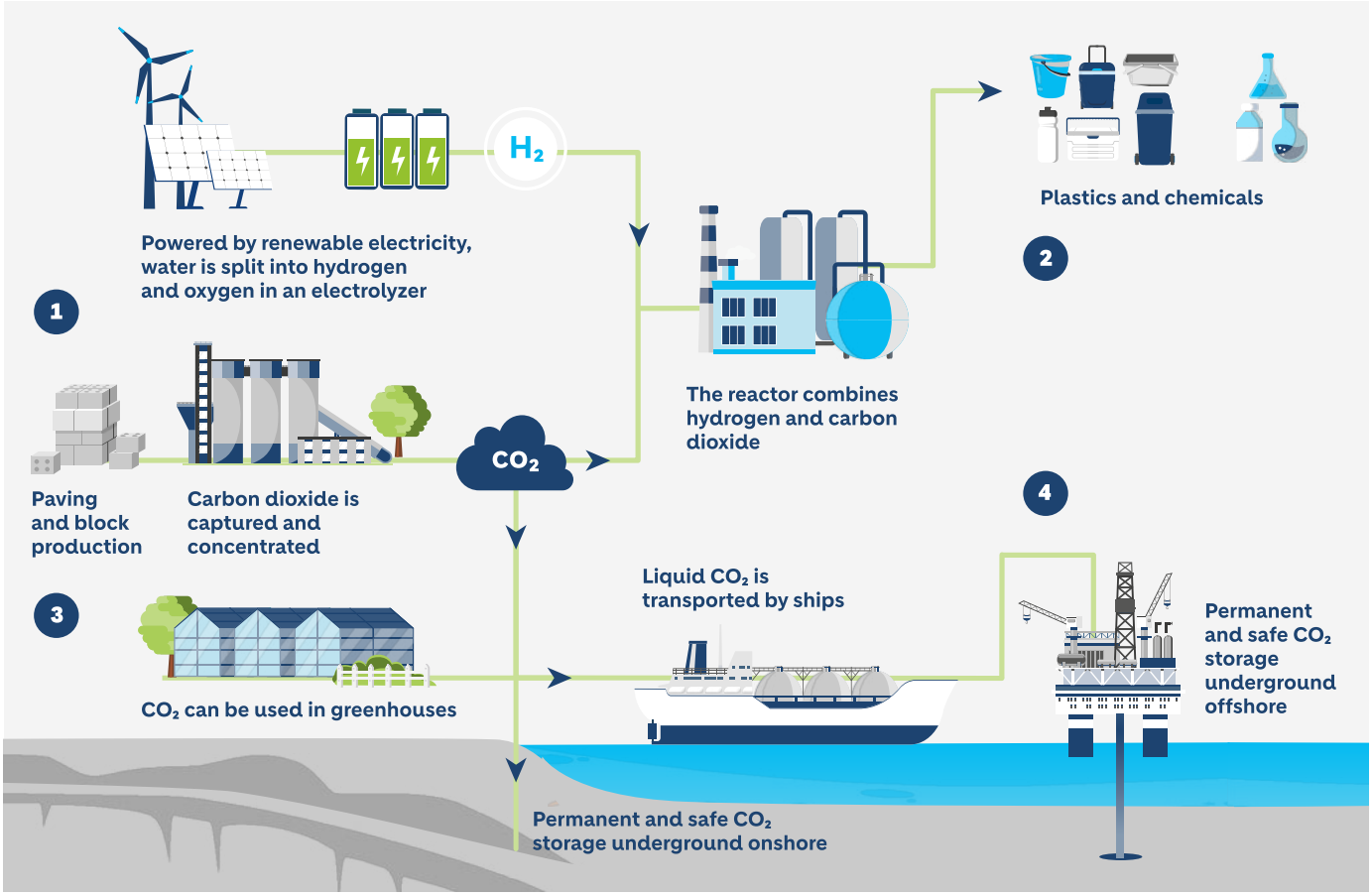
Post-combustion technologies
These solutions capture CO_2 in the exhaust gases of a traditional kiln system. The most advanced use solvents to absorb CO_2, creating a liquid that is sent to a regenerator where concentrated CO_2 can be released. Other post-combustion approaches include CO_2 separation using membranes and adsorption processes.

Integrated processes
We are also exploring various integrated processes such as oxyfuel, the electrification of clinker manufacturing and the calcination of raw materials. The oxyfuel approach replaces air with oxygen in cement manufacturing, avoiding nitrogen in the system and creating a concentrated CO_2 exhaust stream.

Carbon2Business aims to capture and utilize CO_2 from our plant in Lägerdorf, Germany

HOLCIM'S CCUS PATHWAYS

Our projects span four CCUS pathways:



1 MINERALIZATION

CO_2 is reacted with minerals to form carbonates, storing the CO_2. In the cement sector, this reaction provides a way of capturing CO_2 as a raw material to produce new building materials.

2 CONVERSION UTILIZATION

CO_2 can be repurposed by reaction with green hydrogen to produce fuels that can decarbonize the aviation and maritime sectors, or can be used to produce chemicals and plastics.

3 MARKET UTILIZATION

Captured CO_2 can be used for greenhouse plants as a crop growth enhancer or in the food and beverage industries, to carbonate soft drinks, for example.

4 STORAGE

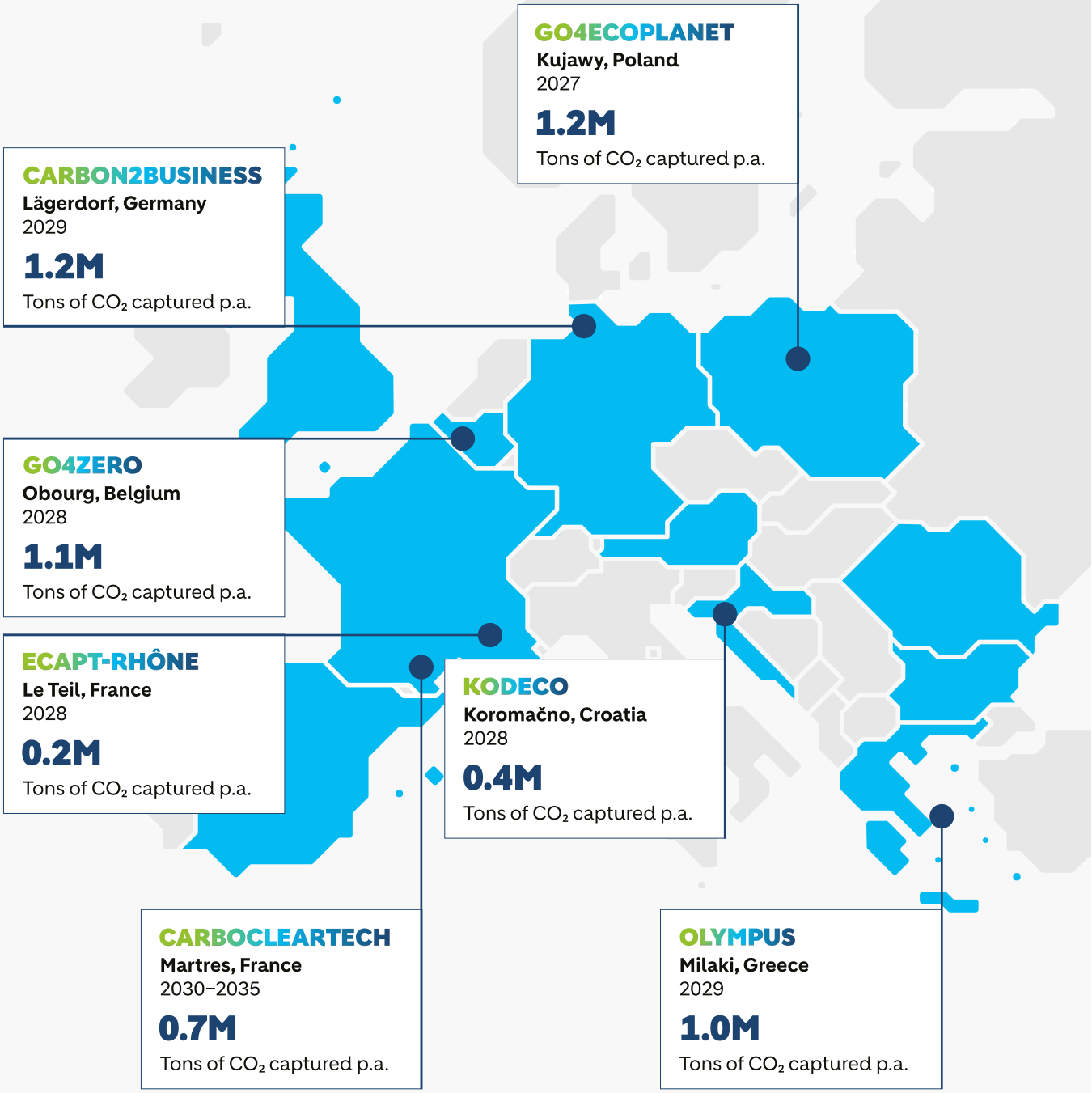
CO_2 is captured from a facility and transported to a location via pipelines, trains, ships or trucks. It is then safely stored underground either onshore or offshore.

OUR AMBITIOUS CCUS ROADMAP

By 2030, we aim to reach significant milestones in our CCUS journey. We have committed to invest CHF 2 billion in CCUS projects, net of public funding, to capture 5 million tons of CO_2 annually and produce 8 million tons of net-zero cement each year from 2030.

To meet these targets, we have identified 17 flagship projects based on mature technologies as well as robust partnerships and value chains. Each one is well positioned to become a net-zero cement plant. Seven full-scale CCUS projects across Europe have been selected for grants from the European Union Innovation Fund and aim to go live before 2030.

SEVEN EUROPEAN UNION-SUPPORTED PROJECTS



The GO4ZERO groundbreaking in Obourg, Belgium, was attended by guests including then Belgium Prime Minister, Alexander De Croo, and European Commissioner, Wopke Hoekstra

Advancing Europe's decarbonization

At its Obourg GO4ZERO groundbreaking, Holcim confirmed its commitment to advancing Europe's decarbonization at the core of its industrial competitiveness, while building broad-based industry coalitions to shape new value chains.

Holcim is currently piloting the broadest range of CCUS technologies – from capture and CO_2 treatment to transportation and storage – to bring these technologies to market at scale in a competitive way.

In addition to Holcim's seven European projects benefiting from EU Innovation Fund grants, we count 10 further projects in early stage development to make CCUS a reality at scale across key markets worldwide.

HOLCIM'S 10 CCUS PROJECTS IN EARLY STAGE DEVELOPMENT

- Mannersdorf, Austria
- Beli Izvor, Bulgaria
- Saint-Pierre-la-Cour, France
- Höver, Germany
- Câmpulung, Romania
- Carboneras, Spain
- Cauldon, UK
- Exshaw, Canada
- Portland, U.S.
- Ste. Genevieve, U.S.

"Thanks to the tremendous leadership here today, Holcim is embarking on the road to climate action, innovation and competitiveness. This is the industrial translation of the EU's Green Deal."

WOPKE HOEKSTRA
European Commissioner for Climate, Net Zero and Clean Growth at Holcim's GO4ZERO groundbreaking

Robust partnerships and value chains
Our advanced CCUS roadmap positions us as the right partner to scale up net-zero cement around the world. Close collaboration between public authorities, private companies, local stakeholders and other value chain partners is essential to unlock the business case for CCUS and enable a net-zero future.

Factors impacting the value chain include the availability of CO_2 infrastructure, proximity to ports, renewable power and water supply, nearby chemical or plastics industries and the feasibility of on- or offshore CO_2 storage.

Holcim is leveraging proven technologies and tailoring pathways and groundbreaking value chains based on local conditions. Working with other private companies and startups, we have a portfolio of diverse, cost-effective solutions that we scale across the company.

"Holcim is on course to make net-zero cement and concrete a reality at scale this decade – thanks to the strength of our engineering teams, our mature technologies and partnerships that span the value chain."

MILJAN GUTOVIC
Chief Executive Officer

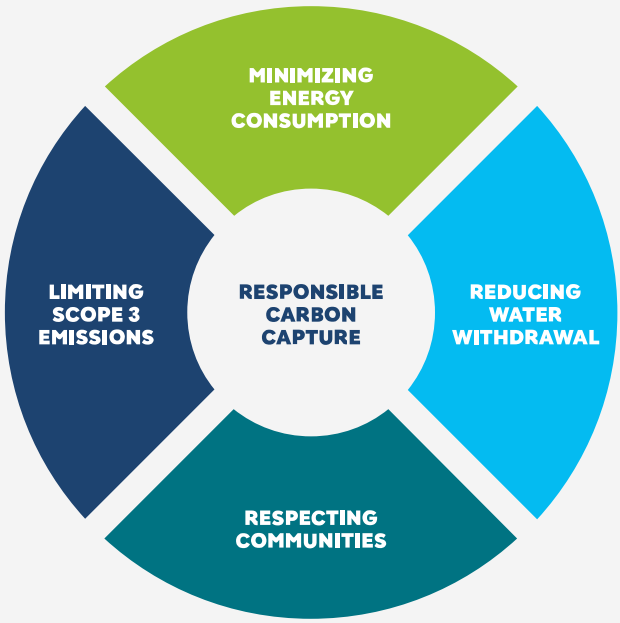
Addressing potential impacts of CCUS

Holcim is at the forefront of developing CCUS technologies, with the broadest range of projects within the industry.

Holcim is thoroughly assessing the potential impacts of these technologies on the environment and the communities where we operate throughout the full value chain:

- Energy and water consumption of CCUS installations.
- Potential impacts on communities with regard to onshore storage solutions.
- Impact on Holcim's Scope 3 emissions.

Read about our climate and nature risks and opportunities from page 62



8M

Tons of net-zero cement will be produced annually from 2030

Co-funded by the European Union
Emissions Trading System
Innovation Fund

Groundbreaking ceremony for our Carbon2Business project in Lägerdorf, Germany

CCUS GROUNDBREAKING

In April and May 2024, we broke ground on two of our flagship CCUS projects – Carbon2Business (Lägerdorf, Germany) and GO4ZERO (Obourg, Belgium). Both have been awarded grants by the European Union (EU) Innovation Fund and will support our commitment to making net-zero cement and concrete a reality at scale this decade.

Guests at the ceremonies included EU, national and local politicians as well as project partners.

“Here in Lägerdorf we see how it can be done: decarbonizing production to deliver climate-neutral cement and concrete,” Dr. Robert Habeck, Vice Chancellor of Germany, Federal Minister for Economic Affairs and Climate Action, at the Lägerdorf groundbreaking ceremony.

NEW GRANT AWARD

In 2024, Holcim was selected for a new grant from the EU Innovation Fund for its breakthrough carbon capture and storage project in Martres-Tolosane, France. This grant for our CarboClearTech project brought the number of Holcim’s large-scale EU-supported CCUS projects to seven, advancing the European Green Deal.

CarboClearTech is a carbon capture and storage system that will be installed at the Martres-Tolosane plant. The system will sequester 700,000 tons of residual CO_2 emissions, enabling the plant to reach net zero by 2031. As the first CO_2 capture site in Southwest Europe, it brings this vital technology to the region and contributes to its sustainable growth.

ADVANCING SMART DESIGN

Leveraging strategic partnerships with academia and industrial partners, we advance smart design to build better with less.

Partnering with academia
Holcim is leveraging key strategic partnerships to advance technologies that reduce "upfront carbon" – the carbon emitted during the construction of buildings – which accounts for 10% of global carbon emissions.

We partner with leading academic institutions around the world – from Massachusetts Institute of Technology (MIT) and the MIT Climate & Sustainability Consortium to the Swiss Federal Institute of Technology (ETH).

Smart design allows us to build better with less, by using just the right amount of materials in the most appropriate parts of a structure, and unlocks significant CO_2 savings.

By embracing smart design at an early stage in projects, we can reduce structural mass. This reduces vertical loads, which can in turn reduce mass further. Known as the "virtuous circle of design improvement", this helps us to achieve the optimal design.

Together with other efficiency gains in construction and concrete industrialization, smart design will reduce our absolute Scope 1 emissions by 26% by 2050, on our pathway to net zero by that date (see page 11).

We collaborated with A3D Building to build the first 3D printed concrete office building in Spain, at our Torres de la Alameda plant

CARBON PRESTRESSED CONCRETE PIONEER

GRÜZE INNOVATION LAB, WINTERTHUR

Working with the Swiss city of Winterthur, Holcim pioneered the use of carbon prestressed concrete (CPC) to build the Grüze Innovation Lab – a 120-m² pavilion that functions as an information center, event location and workshop for sustainable construction.

The lab opened in spring 2024, and is not only one of the world's first CPC buildings – made using delicate yet resilient reusable panels designed by Holcim – but is also the first CPC structure built using a new construction method developed by CPC AG and Zurich University of Applied Sciences.

Made by Holcim using a proprietary process, the CPC panels are reinforced with thin, prestressed carbon strands. Due to carbon's high tensile strength and non-corrosive properties, we can produce slim, durable load-bearing elements.

This patented technology unlocks design possibilities and offers material savings of up to 75%, while reducing CO_2 emissions two to three times. The lab is also pioneering a "sharing" model, whereby Holcim loans out the CPC panels to the city for an annual fee.

Read more online

Pushing the boundaries of 3D Printing

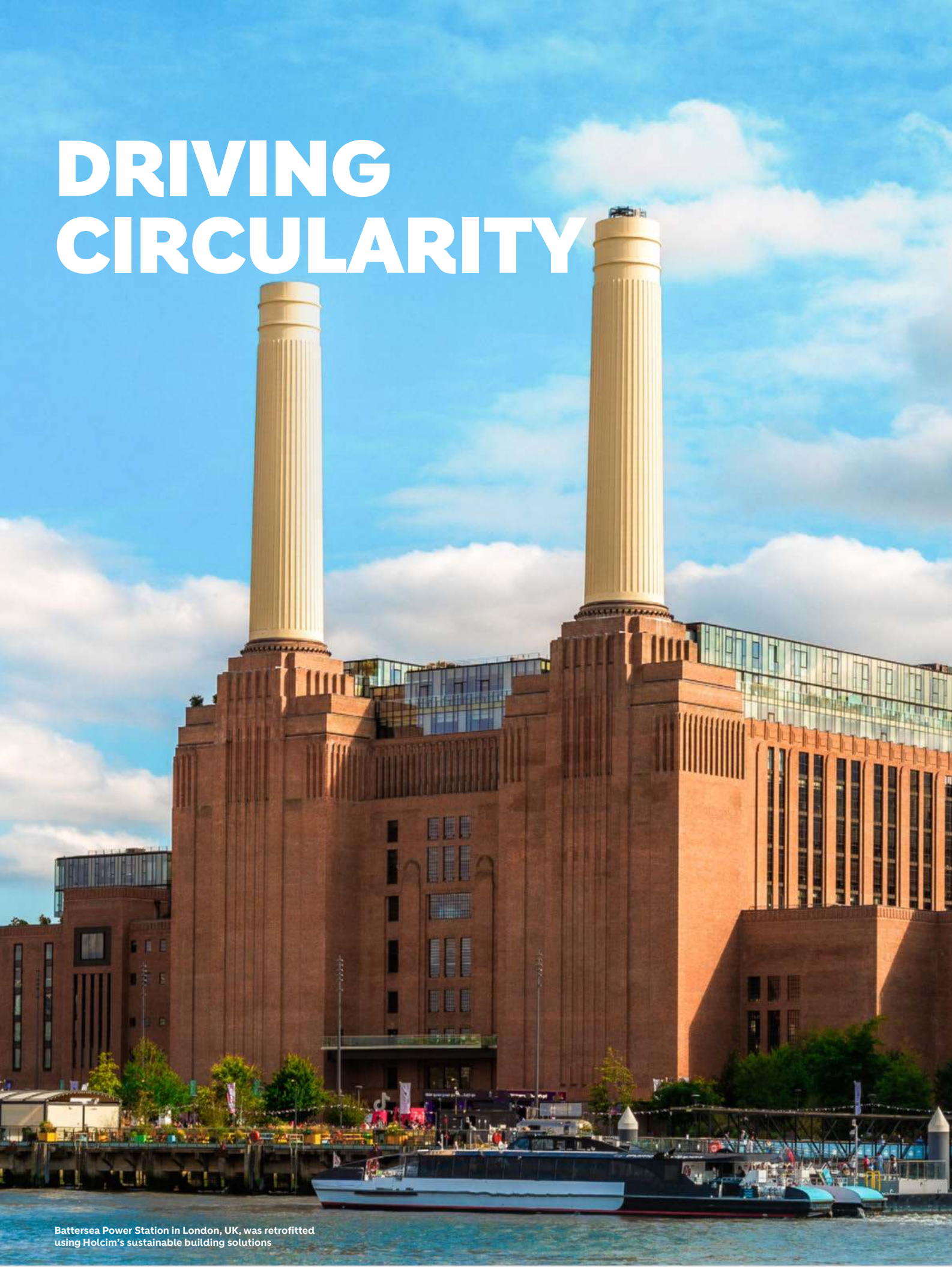
By empowering smart design, 3D printing can reduce material use by up to 50%, with no compromise in terms of performance, while significantly lowering a building or structure's carbon footprint.

In 2024, we worked with A3D Building to build Spain's first 3D printed office building at our Torres de la Alameda site. Using 3D concrete printing, we unlocked freedom of design and form, and achieved time, cost and material savings, as well as sustainability benefits.

Stemming from Holcim's global Better Workplaces program, the new 127-m² office space was built using our TectorPrint mortar, which is formulated for ultra-fast 3D robotic printing. The floor and roof were built with ECOPact, and solar panels will cover all its energy needs.

With our partners, we have used 3D printing to build everything from schools in Malawi and affordable housing in Kenya, to Switzerland's first on-site 3D printed concrete building and wind turbine bases.

DRIVING CIRCULARITY



Battersea Power Station in London, UK, was retrofitted using Holcim's sustainable building solutions

IN THIS SECTION

34 Circular construction driving profitable growth
36 Circular living
38 Regenerative revolution
40 Sustainable construction

CIRCULAR CONSTRUCTION DRIVING PROFITABLE GROWTH

Holcim is advancing circular construction in key metropolitan areas where we operate across the world as a driver of profitable growth.

Advancing circular construction
The future of construction is circular. As the world's population grows, we need to build sustainably – with solutions to reduce, recycle and reuse materials.

Making circular construction a driver of profitable growth, we are committed to building new from old, reducing use of primary materials and minimizing waste, as well as generating revenue from recycling fees. We offer high-value, advanced sustainable solutions that incorporate recycled material, without compromising on performance.

Scaling our ECOCycle® circular technology
By deploying our ECOCycle® circular technology across a range of building solutions, we produce products that guarantee a content of minimum 10% up to 100% recycled construction demolition materials (CDM), with no compromise on quality and performance. Solutions include raw materials for use in low-carbon cement formulations and recycled aggregates for use in concrete or as fillers for road construction.

Solutions with ECOCycle® are now available in nine countries, with more launches planned. As we grow our network of advanced processing sites, we are expanding the markets for which we can provide circular solutions.

Unique geographical footprint
We currently run over 150 recycling centers worldwide, in or near to major metropolitan areas in which we operate – from London to Lyon and Melbourne to Toronto. Holcim's unique geographical footprint and our strong logistics network give us excellent access to CDM available at these "urban mines".

Scaling organically and through M&A
We are leading the shift to circular construction across all our regions, both organically and through M&A. In 2024, we made four value-accretive acquisitions in this space – in the UK, Germany, Belgium and Switzerland – to scale up ECOCycle®. In 2024, Holcim grew its recycling of CDM by 20% for the second consecutive year to 10.2 million tons – equivalent to over 2,000 truckloads every working day.

Iconic circular projects
Iconic Holcim projects include Wood Wharf in central London, where we provided one of the UK's first concretes with recycled CDM.

In Australia, the Kidston Pumped Hydro Energy Project in Queensland was built using 100% recycled aggregates in all Holcim concrete. In France, Recygénie – a social housing project near Paris – was constructed using the world's first 100% recycled concrete from Holcim.

10.2M
Tons of CDM recycled in 2024

150+
Recycling centers worldwide

London's Wood Wharf uses Holcim's ECOPact concrete with 20% locally "mined" construction demolition materials inside

Holcim's circular solutions in action

CDM as high-value aggregates

Holcim is taking recycled aggregates to the next level, recycling them as high-value solutions for use in ready-mix concrete, as well as asphalt for road construction. In the UK, for example, the spectacular Wood Wharf mixed-use development in London uses aggregates "mined" locally then recycled at our nearby recycling center. These were used to create ECOPact mixes with 20% recycled aggregates inside for two of the project's towers.

CDM as alternative raw materials

To reduce emissions in cement, we are substituting limestone in clinker with alternative raw materials derived from CDM – to reduce emissions. For example, the Lakeside Project office complex in Warsaw, Poland (see page 27 in the *2024 Integrated Annual Report*) was built using ECOPact concrete. This contains cement that uses recycled mineral insulation wool recovered from CDM as a limestone substitute.

CDM as mineral components

Recycled ready-mix fines can be used to replace limestone in concrete production. One example is a multistory office building and underground car park in Styria, Austria, built using Holcim's ECOPlanet RC. Launched at the Austrian World Summit in 2023, this cement contains more than 25% ECOCycle® recycled CDM, and binds additional CO_2 directly into the recycling material via our innovative "RapidCarb" process.

CDM as coarse aggregates

Holcim's broad range of alternative aggregates – containing recycled concrete and secondary aggregates – can be used as base materials for everything from roads to buildings. Jobcenter Unna in Germany is an urban regeneration project where Holcim supplied 2,000m^3 of ECOPact with coarse aggregates recycled at our site near Dortmund.

CIRCULARITY

CIRCULAR LIVING

A circular economy decouples global growth from use of primary raw materials.

The world's current rate of resource use is unsustainable, and we are set to consume 2.3 planets by 2040[1]. To stay within our planet's boundaries, we need to change the way we build. That is why we travel the world with a a call to action – to drive circular building and living.

Empowering circular cities
With almost 70% of the world's population expected to live in cities by 2050[2], cities can play a vital role in helping us shift from a linear, take-make-waste economy to a circular, reduce-recycle-regenerate one.

Through sustainable building solutions such as ECOPact concrete, we enable sustainable building. We contribute to infrastructure that enables green mobility, from metros to railways and roads.

Elevate roofing and insulation systems improve buildings' energy efficiency and achieve the most advanced sustainability certifications, while Malarkey has diverted millions of rubber tires and billions of plastic bags from landfill by upcycling them into roofing shingles.

RACING FOR CIRCULARITY

VENDÉE GLOBE 2024

In November 2024, the skipper of Team Holcim-PRB, Nicolas Lunven, embarked on his first Vendée Globe – a solo, nonstop and unassisted round-the-world voyage. The 10th edition was the largest yet, with 40 boats and skippers representing 11 nationalities. After 75 days at sea, Nicolas finished in sixth place – an incredible achievement.

Thanks to the OceanPack onboard our IMOCA sailing boat, Nicolas collected up to 25,000 water samples daily from the most remote places on the planet – including Point Nemo, where anyone who visits is closer to astronauts on the International Space Station than to other human beings on Earth. This data from the South Pacific Ocean, which is currently scarce, will help scientists better understand the health of our oceans.

These water samples are analyzed using OceanPack, an autonomous monitoring system optimized for racing vessels. It measures levels of carbon dioxide, oxygen, salinity and temperature, to shed light on the impact of climate change on our oceans.

Team Holcim-PRB skipper Nicolas Lunven, moments before embarking on the Vendée Globe

[1] World Business Council for Sustainable Development report, 26 September 2022.
[2] UN Department of Economic and Social Affairs: "2018 Revision of World Urbanization Prospects"

From green roofs to urban gardens enabled by Hydromedia water-permeable concrete, we are bringing more nature into cities, improving air quality, reducing urban temperatures and enhancing people's well-being.

ECOCycle® enables us to recycle up to 100% of construction demolition materials across a broad range of applications, from decarbonized raw materials in low-carbon cement through to aggregates and concrete.

GO CIRCULAR: From Sea to City

With GO CIRCULAR, Team Holcim-PRB sails the world to preserve our oceans, with a call to action to accelerate the shift to circular building and living.

During the last edition of The Ocean Race, the team gathered scientific data as part of the largest-ever marine science program during a sports event, collecting over four million data points. These water and air samples were shared with the World Meteorological Organization.

Team Holcim-PRB did the same during the Vendée Globe 2024, collecting up to 25,000 samples each day with the help of the OceanPack.

Circular Explorer

The Circular Explorer is our 100% solar-powered catamaran, designed to recover and recycle plastic waste in the ocean and rivers, educate communities and advance marine research. It is currently operating in Manila Bay in the Philippines. Watch the Ocean Titans episode about the Circular Explorer:

holcim.com/circular-explorer

"Teamwork is what makes success possible in the Vendée Globe. The same is true when it comes to making circular living a reality."

NICOLAS LUNVEN
Skipper, Team Holcim-PRB

Team Holcim-PRB at the Vendée Liberty, organized as part of the New York Vendée 2024

REGENERATIVE REVOLUTION

We need to transform our cities to be regenerative by design, to ensure a thriving future for people and the planet.

Unleashing a "Regenerative Revolution"
Almost 70% of people worldwide will live in cities by 2050, which means they lie at the heart of our transition to a sustainable, circular, and resilient future. We need to ensure that we design and build cities in a regenerative way for those who live in them.

This demands a regenerative revolution, with spaces designed to improve living standards, make cities more resilient and serve society. Taking this approach is about bringing nature into cities and putting people at the core of the built environment.

Together with Systemiq, we published a report titled "Unleashing a Regenerative Revolution for the Built Environment", calling for the built environment to accelerate positive impact for people and the planet. In the report, we set out the case for change, and how we can work together across the construction sector to make this the new normal.

What is a regenerative city?
A regenerative business model for the built environment evolves over time, is people-centric, well integrated with nature, and rooted in place.

THE BIG U – NEW YORK

New York's Big U project is setting the standard for regenerative building, as coastal cities worldwide recognize the need to become more climate resilient.

In 2012, Hurricane Sandy hit Manhattan, causing significant damage to buildings and infrastructure. In response, a group of architects, environmental groups, and policy experts conceived the Big U, a 16-kilometer protective ribbon to encircle Manhattan's southern tip. Holcim's sustainable building solutions are being used in the East Side Coastal Resiliency (ESCR) section of the BIG U, to provide high structural strength in walls, and create parks and pathways.

The innovative project is nature-based. Listening to the needs of the local community, it incorporates outdoor spaces and reconnects residents with the natural ecosystem around them. Big U has improved the health and well-being of those living in Lower Manhattan and increased the city's resilience.

"A regenerative revolution in the built environment offers a way of doing better business, while delivering benefits to people, nature and climate."

JEREMY OPPENHEIM
Founder and Managing Partner
Systemiq

Read more online

Holcim's sustainable building solutions are being used to build the BIG U, a large-scale protective system in Manhattan, New York City

Evolution over time

Regenerative approaches do not aim to deliver outcomes by strict time deadlines. Rather, they are designed to include feedback loops, giving them the flexibility to adapt continuously and be resilient to their ever-changing economic, social and environmental circumstances.

Focused on people's needs

The ultimate purpose of built structures is to meet the needs of their users for shelter, security, comfort, creativity, connectivity or enterprise. Putting the needs and wishes of users at the center of the planning and design process can create structures that uplift and improve human beings' daily experiences.

Integrated with nature

Restoring the connections between people and their natural surroundings regenerates their health and well-being. Regenerative places originate from living systems thinking, which respects planetary boundaries and favors nature-based solutions. Designed as living systems, they restore the connections between people and their surrounding natural environment.

Rooted in place

Urban environments that regenerate lives and livelihoods deepen the sense of connection between people and the places where they live, work and play. They are informed by an intimate understanding of local history, ecology and culture to reflect the unique essence of their place.

SUSTAINABLE CONSTRUCTION

Advancing sustainable construction with the Holcim Foundation and Holcim Sustainable Construction Academy.

Holcim Foundation for Sustainable Construction
The Holcim Foundation for Sustainable Construction has supported and connected innovators in the built environment for two decades. In 2024, the Foundation created new platforms to share knowledge and promote best practices in sustainable construction.

Holcim Foundation Awards

Following the announcement of the 2023 Awards winning projects, the Foundation launched a monthly Awards Webinar series in 2024, giving a voice to winning teams from across the globe. With over 2,000 participants across live and recorded sessions, the webinars covered innovative approaches to decarbonization in construction, equitable community design and nature-based solutions.

In addition, several Awards Talks events visited winning projects, conducting panel discussions with project teams and industry experts. These events showcased real-life projects, sparking dialog on the challenges and opportunities of sustainable design. The new Words with Winners short film series also showcased groundbreaking projects from past Holcim Foundation Awards winners.

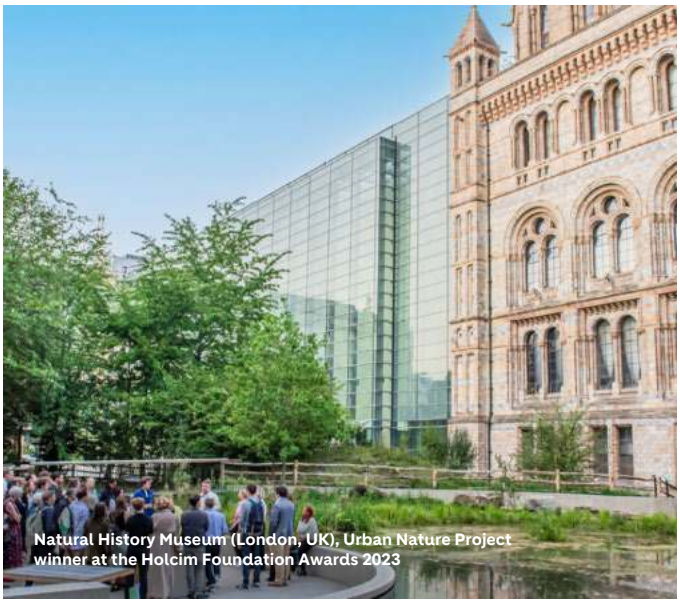
The Holcim Foundation Awards is the world's most significant prize in sustainable design, focusing on environmental, social, economic and contextual sustainability. Open every two years, the competition will announce a new cohort of winners in 2025.

Supporting future agents of change

The Foundation expanded its educational efforts, focusing on next-generation changemakers with the first regional Holcim Foundation Fellowship in New York for North America. Over two weeks, 15 emerging leaders from built environment disciplines took part in workshops, site visits and discussions centered on decarbonization at scale. Bridging academia and practice, more fellowships will follow in 2025 in collaboration with universities across Latin America, the Middle East, Africa and Europe.

"I was blown away by the passion, intelligence and creativity of the first group of Holcim Foundation Fellows."

DAVID BENJAMIN
Academic Lead, Holcim Foundation Fellowship
Columbia University GSAPP



Natural History Museum (London, UK), Urban Nature Project winner at the Holcim Foundation Awards 2023

The Holcim Sustainable Construction Academy was launched at back-to-back events in London and New York in September 2024

HOLCIM SUSTAINABLE CONSTRUCTION ACADEMY

We launched the Holcim Sustainable Construction Academy in 2024 to engage built environment professionals – architects, urban planners, engineers and more – to integrate the principles of sustainable and regenerative design.

A free online training program, the academy equips participants with all the tools they need to measure the impact of their building project. Starting early in the design process, it guides them through to a more in-depth understanding of construction materials, knowledge of the latest design and material innovations and systems that support circularity.

Experts from Holcim Group and Holcim Innovation Center collaborated with professors from the University of Cambridge, ETH Zurich, and architects and engineers from ARUP, Ramboll, Zaha Hadid Architects, Henning Larsen and others to design the curriculum. The modules are Continuing Professional Development (CPD) certified and, upon completion, participants receive a shareable certificate.

holcimacademy.com

"I am proud to have contributed to the Holcim Sustainable Construction Academy, which has the potential to make a lasting impact on our industry and planet."

DR. JOHN ORR
Professor of Structural Engineering,
University of Cambridge

NATURE-POSITIVE

La Confluence, an urban regeneration project in Namur, Belgium, uses Holcim Elevate RubberGard™ EPDM roofing membrane

IN THIS SECTION

44 Building a nature-positive future

NATURE

BUILDING A NATURE-POSITIVE FUTURE

Holcim takes a measurable, science-driven approach to nature, from our biodiversity indicator system to our freshwater ecosystems and nature-friendly building solutions.

Contributing to a nature-positive future
Holcim is committed to contributing to a nature-positive future. Going beyond traditional rehabilitation, we transform local ecosystems to increase the resilience of our planet and society.

Enhancing biodiversity

Our approach to enhancing biodiversity involves working with nature to accelerate restoration. We harness natural processes, endemic species and local adaptation, and account for the landscape and conservation context.

Our biodiversity targets are based on progressive transformative rehabilitation plans and measured by a scientific methodology developed in partnership with the International Union for Conservation of Nature (IUCN).

In 2024 we reached our milestone of assessing 100% of our biodiversity baseline in all our active and non-active quarries (excluding quarries in the process of divestment such as quarries in the U.S. and Canada). Our other commitments include a higher biodiversity index measured with the Biodiversity Indicator and Reporting System (BIRS) by 2030.

BIRS enables us to identify risks and opportunities to improve the effectiveness of the actions we put in place to increase biodiversity by 2030. In 2024, Holcim successfully worked with IUCN to assess the quality of the BIRS baseline process. As a next step, IUCN will help Holcim identify opportunities to improve our biodiversity index.

SCIENCE-BASED TARGETS FOR NATURE

At COP16 Convention on Biological Diversity, Holcim was named by the Science Based Targets Network (SBTN) as one of the first three companies in the world to adopt science-based targets for nature. This science-based target-setting, starting with freshwater, is a significant milestone in advancing ambitious and measurable corporate action for nature. It follows a year-long SBTN pilot program, for which Holcim was one of 17 companies selected globally and the only company in its sector.

Holcim's granular water data enabled it to set an ambitious target of a 39% reduction in freshwater withdrawals by 2030 in its direct operations in the Moctezuma basin in Mexico, compared to an average 2022–2023 baseline.

"We're pleased to see companies like Holcim leading the way by publicly adopting the world's first science-based targets beyond climate, demonstrating that a clear and credible pathway for ambitious action for nature is possible."

ERIN BILLMAN
Executive Director
Science Based Targets Network

Water

Since freshwater is a finite resource, we aim to reduce water intensity throughout our operations. We are prioritizing our actions in high water-risk areas, tailoring our solutions to local conditions.

Our commitments include: committing to lowering water intensity across business lines, with a 33% reduction in cement, 20% in aggregates and 15% in ready-mix concrete.

Restoring ecosystems

We are committed to promoting healthy habitats, with local, site-based rehabilitation plans to safeguard natural resources and restore ecosystems.

At Glensanda Quarry in Scotland, we planted a 64-hectare native woodland to restore habitats that have been in decline over the last few decades. This 105,000-tree plantation supports the re-establishment of the country's temperate rainforest.

In partnership with the municipal government, technical organizations and civil society, our team in Argentina launched a 2.4-hectare reforestation project on the Alto Comedero riverside in Jujuy by planting 1,300 specimens of native flora. The project replenishes freshwater by retaining runoff, restores a degraded ecosystem, improves soil quality, enhances biodiversity, improves water quality, and reduces the downstream flooding risk.

We are working with partners such as the University of Patras and IUCN to improve our biodiversity levels at our Araxos Quarry in Greece. The site is a birdwatching paradise thanks to a nesting area for migratory protected birds, and a year-round shelter for many species, including endemic amphibians and reptiles.

We partnered with Landcare Australia to support foreshore and riparian restoration in Perth, helping to mitigate water quality threats. On the eastern seaboard, our Beenleigh Quarry team successfully completed the Protected Plant project, ensuring no net loss (NNL) of a vulnerable plant species, the Slender Milkvine.

Our reforestation project in Jujuy, Argentina, will replenish freshwater and restore the native ecosystem

Glensanda Quarry was reforested to benefit the area's priority species

SPECIFIC FRESHWATER WITHDRAWAL

277

L/ton of cementitious material
2023: 298 L/ton

BIODIVERSITY

100%

Biodiversity baselines assessed using BIRS methodology
(excluding quarries in process of divestment such as U.S. & Canada)

GLOBAL LEADERSHIP

SCIENCE BASED TARGETS NETWORK
GLOBAL COMMONS ALLIANCE

One of the first three companies with targets validated by SBTN

Preserving freshwater ecosystems
Holcim implements freshwater replenishment programs beyond our site boundaries, and supports water access and sanitation, to benefit local communities and nature.

Reviving an iconic river in Costa Rica
Our team in Costa Rica joined forces with the National Alliance of Rivers and Basins to rehabilitate the Agua Caliente River and restore its importance as a natural and tourist resource.

We are doing this by using clay spheres made by community volunteers. Loaded with microorganisms, the spheres purify water and rehabilitate deteriorated aquatic ecosystems. Holcim also created the Citizen Water Observatory, which trains and empowers the community to monitor and protect local water sources.

Tackling water scarcity in Algeria
Zeghad, a village 240 kilometers east of Algeria's capital Algiers, is in a region of extreme water scarcity. Village inhabitants previously had no access to running water. They either had to purchase water tanks at prices some could not afford or walk considerable distances to reach water points. Holcim's team at our M'Sila plant installed water pipes from the plant's water wells to the village center, and built a fountain that provides water for domestic and drinking purposes, for people and livestock.

Thanks to this project, water supply to the villagers has reached 2,200 m^3 per month, with water quality certified by annual controls. Additionally, we planted new green areas, including herb gardens.

Reducing freshwater withdrawals in Ecuador
In Ecuador, we partnered with a local brewery and beverage manufacturer to reduce freshwater withdrawals at our two concrete plants in Guayaquil, Ecuador. The project uses 69,000 m^3 of treated wastewater from the two companies for concrete production over a five-year period.

This initiative promotes responsible water management, focusing on its optimal use and preservation, reducing freshwater use and effectively managing wastewater. By September 2024, we had achieved a reduction of 15.99 l/m^3, representing 5% of the segment's total consumption nationwide, and the equivalent consumption of 2,520 people or 28 Olympic-sized swimming pools.

SUPPORTING NATURE WITH OUR SOLUTIONS

We are committed to developing solutions that support nature and bring more of it into cities.

Our innovative bio-active concrete solutions, for example, help rehabilitate damaged coastal ecosystems. In the Philippines, Holcim supplied rrreefs, a Swiss startup, with ECOPlanet cement to create 500 concrete base elements. Sitting off the coast in Pujada Bay near Mati city, these will hold 820 3D-printed artificial reef modules produced by rrreefs. In Mexico, we deployed more than 20 volunteers and donated ECOPlanet Prime to create bio-active reefs that will restore the corals of Isla Contoy National Park. This has enabled the restoration and reproduction of nearly 450 corals.

Green roofs play an essential role in bringing nature into cities and improving urban biodiversity. Leading by example, ZinCo's green roof systems were used to construct a large roof terrace with intensive greening and balconies at the company's new head office in Germany.

Designed for corals to regenerate and fish to thrive, these modules enable a reef ecosystem to flourish in Pujada Bay

Using innovative clay spheres to rehabilitate aquatic ecosystems in the Agua Caliente River, Costa Rica

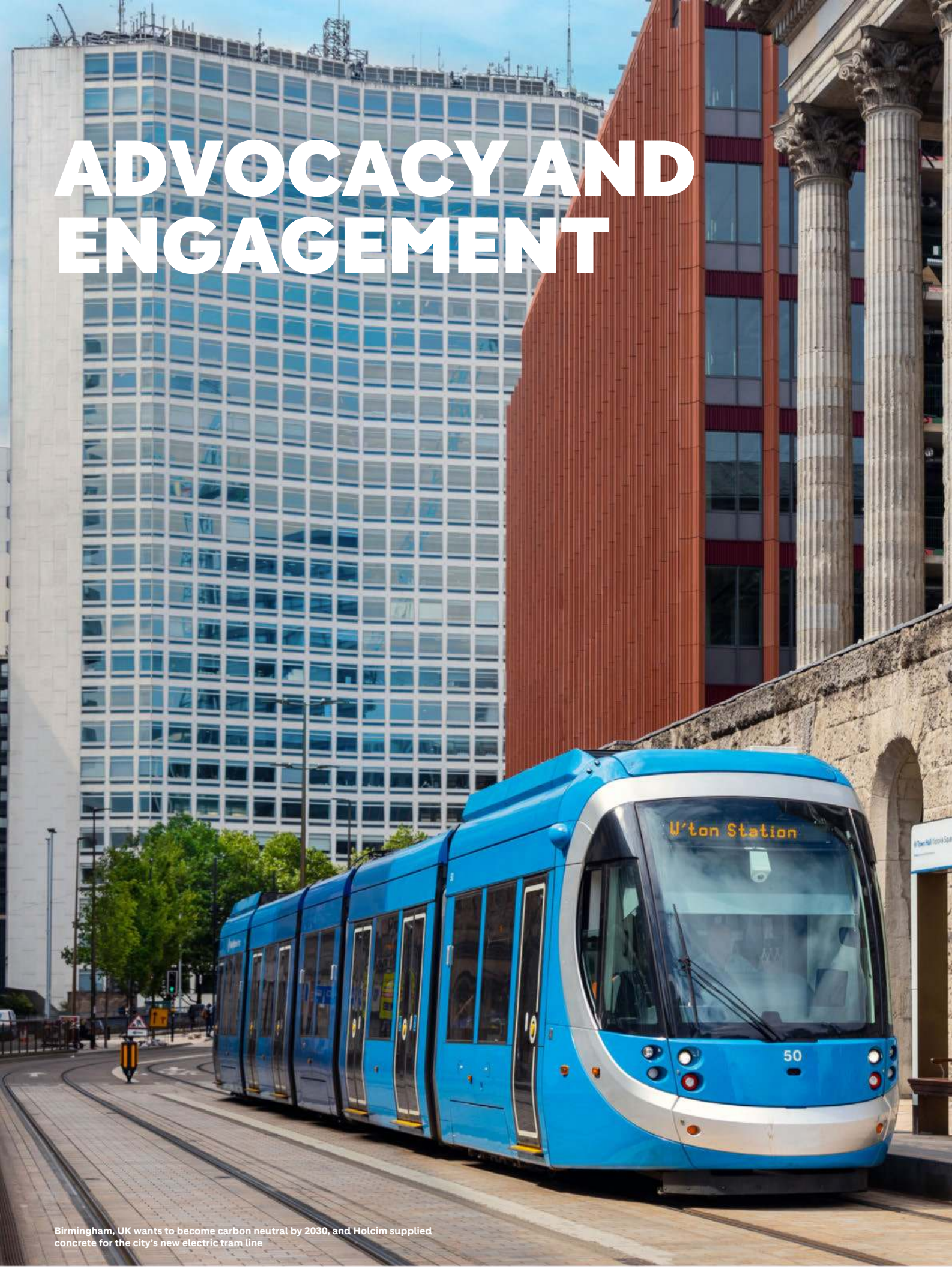
"We are excited to collaborate with Holcim to strengthen the foundation of our reef system and inspire further action towards a nature-positive future."

JOSEPHINE GRAF
rrreefs Co-Founder

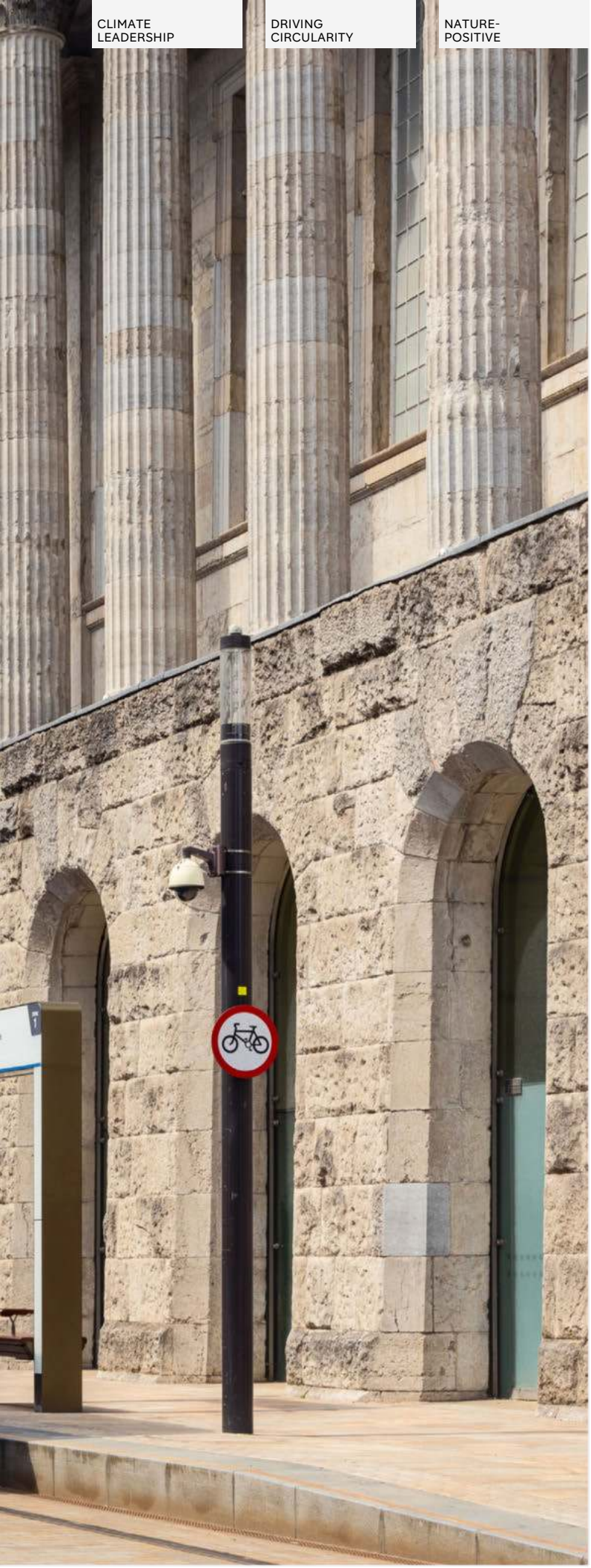
Toward a nature-positive built environment
The business case for taking action to address nature loss has never been clearer. We partner with leading NGOs, coalitions and other actors in the built environment value chain to share and transfer knowledge that will accelerate the shift to a nature-positive built environment. In 2024, we collaborated on a variety of publications to inspire corporate action on nature.

Read more about how we are building a nature-positive future

ADVOCACY AND ENGAGEMENT



Birmingham, UK wants to become carbon neutral by 2030, and Holcim supplied concrete for the city's new electric tram line



IN THIS SECTION

50 Advocacy positions and transparency
54 Just Transition

ADVOCACY POSITIONS AND TRANSPARENCY

Holcim is committed to advocating for public policy frameworks that are fully aligned with the 1.5°C Paris Agreement.

Introduction
In 2020, Holcim joined the UN Global Compact's Business Ambition for 1.5°C campaign, committing to align its targets and actions with the 1.5°C framework. This commitment was translated into robust, SBTi-validated targets for 2030 and 2050, in line with the 1.5°C science-based framework. It forms part of Holcim's climate advocacy and engagement, to ensure alignment with the global ambition of the Paris Agreement to limit global warming to 1.5°C above pre-industrial levels.

To meet its ambitious climate targets, Holcim closely collaborates with stakeholders, partners and policymakers. It advocates for forward-looking policy frameworks that facilitate the development of business cases to drive innovation, establish new industrial value chains, and scale up the deployment of circular and low-carbon solutions globally, thereby contributing to the global 1.5°C ambitions.

Holcim's commitment to the 1.5°C ambition is fully reflected in our public policy positions, which are further described in this chapter as well as in our Climate Policy Advocacy and Engagement report.

Climate policy positions
Holcim actively addresses global and specific climate policy issues through close collaboration with policymakers, partners and key stakeholders. We are committed to promoting public policy frameworks that are anchored in circular economy principles, aligned with the Paris Agreement's 1.5°C target, that enable innovative and competitive green growth. Our 2024 policy priorities are outlined on the following pages.

Competitive green growth and carbon costs
Decarbonization is at the heart of our industrial and commercial strategy through the deployment at scale of advanced innovative technologies, such as CCUS, and the introduction of low-carbon solutions, such as ECOPact concrete, on construction markets globally. The competitive deployment of such technologies and products is facilitated by policy measures such as carbon pricing or emissions trading schemes. In that regard, Holcim advocates for a level playing field on carbon costs internationally. Initiatives such as the Carbon Border Adjustment Mechanism (CBAM) in Europe, fair state aid rules for energy-intensive sectors and dynamic carbon pricing are critical to scaling decarbonization efforts.

Support advanced decarbonization technologies
Holcim is driving the broadest range of decarbonization technologies in the industry. These span the utilization of innovative low-emission raw materials, such as calcined clay and recycled decarbonized cement paste, to fossil fuel-free energy and CCUS.

Recognizing that no single solution will be perfectly scalable everywhere due to varying technological, geological and legislative conditions, we emphasize the need for a regulatory framework that is flexible and clearly defined. This requires adequate funding, simplified application and flexibility within existing financial tools, plus de-risking mechanisms, to incentivize first movers.

At the Davos Baukultur Alliance annual meeting, Holcim co-chaired the Alliance's Focus Group on Sustainability & Circularity

Secure access to competitive decarbonized energy

We advocate for the development and deployment of sustainable and decarbonized energy solutions. Securing access to competitive decarbonized energy sources is essential to enable industrial decarbonization at scale. To accelerate the transition, we urge: (1) A well-functioning electricity market with access at scale based on competitive prices. (2) Accelerated investments in renewable energy assets via faster permitting procedures. (3) Sustained access to non-recyclable and biomass waste as alternative fuels.

Foster demand for low-carbon products

Holcim is at the forefront of driving the transition to low-carbon, circular construction by delivering innovative sustainable products and solutions on a global scale. Introducing them to the market requires a dynamic standardization framework supported by enabling building codes and progressive public procurement practices, while integrating sustainability performance alongside traditional metrics such as safety, performance, durability and affordability.

Advance mandatory human rights and environmental due diligence

We take a whole-society approach to reaching net zero, respecting labor and human rights while creating stimulating jobs. We are committed to decarbonization in line with the Just Transition principles, assessing and addressing the impacts of our journey to net zero on four key stakeholder groups: our people, our suppliers, our communities and our customers (see pages 104–105).

As part of its climate policy engagement, Holcim supports the implementation of regulatory frameworks that require mandatory human rights and environmental due diligence. Establishing common legal requirements, such as those proposed at European Union level, ensures consistent standards across industries. It also ensures that efforts made by companies to respect people and the planet are not undermined by the lack of uniform standards. Such regulatory frameworks increase legal certainty and ensure a competitive level playing field, to the benefit of the environment and of local communities.

Climate policy advocacy governance

Holcim's climate advocacy is led by Group Public Affairs, supported by Group Sustainability and regional experts. Our approach consists of defining priorities aligned with the 1.5°C agenda and scalable actions as well as sharing advocacy guidance through a public affairs network for consistent local engagement.

Governed by a "Responsible Lobbying Directive", Holcim commits to dealing transparently and fairly in all its lobbying activities and complies with all applicable laws. This includes adherence to public codes of conduct and lobbying registers, where those exist. For example, Holcim's climate advocacy activities are disclosed in the EU Transparency Register. Furthermore, participation in industry and business associations is subject to mandatory compliance training and regular review.

> **"We can be very proud of what Holcim is doing here in Belgium. The greenest cement in the world will be produced here."**
>
> **ALEXANDER DE CROO**
> Prime Minister of Belgium (Oct 2020 to Feb 2025)

Direct climate policy advocacy

Our advocacy efforts have centered on amplifying climate action through direct engagement with policymakers, contributing to relevant policy developments and forming strategic partnerships.

Engaging on specific policy developments

We are actively engaged in the development of ambitious and enabling climate policy frameworks. At a global level, we are proactively involved in relevant frameworks, such as the Basel Convention on the Transboundary Movement of Waste and the revision of its Annex IVB. At a regional level, in Europe we actively contribute to the development of innovative policy frameworks such as the EU's Industrial Carbon Management Strategy and the Net Zero Industry Act, which were both adopted in 2024.

Engaging at global events

Holcim engages proactively during global events throughout the year. In 2024, this included the Buildings and Climate Global Forum (Paris, France), the EU's Industrial Carbon Management Forum (Pau, France) and the UNFCCC's COP29 (Baku, Azerbaijan). We foster regulatory developments and cross-sectoral collaboration that enable the decarbonization of industrial activities, products and solutions, as well as the built environment value chain.

Forming strategic partnerships and alliances

To further advance global advocacy for low-carbon and circular construction, we joined key coalitions, including the Circular Leaders Group of the Ellen MacArthur Foundation, and took on a leadership role as co-chair of the Focus Group Sustainability & Circularity of the Davos Baukultur Alliance, hosted by the Swiss Confederation.

The GO4ZERO groundbreaking event in Obourg, Belgium, was attended by regional, national and EU representatives

At COP29, Holcim joined calls for global policy action to boost demand for low-carbon materials and transformative climate policies

Climate advocacy in action (indirect)

We promote our commitment to the Paris Agreement and net-zero targets by collaborating with partners and trade associations including Cembureau and GCCA, with a view to shaping Paris-aligned climate policies locally and globally.

By way of example, in 2024, we contributed to the launch of global definitions for low-carbon cement and concrete at COP29, based on frameworks from the IEA and UNIDO's IDDI, to drive low-carbon cement and concrete demand.

Advocacy through multi-stakeholder collaboration

In 2024, we collaborated with global organizations such as World Business Council for Sustainable Development (WBCSD), World Green Building Council (WGBC), European Roundtable for Industries (ERT) and World Economic Forum (WEF), to drive industrial and built-environment decarbonization, supporting circular economy principles and the Paris Agreement.

At COP29, Holcim joined calls for global policy action to boost demand for low-carbon materials and transformative climate policies.

Industry associations review

Holcim is committed to ensuring that our advocacy through trade associations is aligned with the Paris Agreement and Holcim's positions. We conduct an annual trade association review focused on:

- Support for the Paris Agreement's climate ambition and net-zero agenda.
- Support for carbon pricing mechanisms.
- The need to develop 2050 decarbonization roadmaps.
- Acceptance of the need to deploy advanced technologies, including CCUS.
- Support for the creation of demand-pull policies for low-carbon products.

We are committed to working with our trade associations to accelerate that journey. We address misalignment with associations or, if necessary, reconsider our membership.

Additional details regarding our climate advocacy and our trade association review are available in our Climate Policy Engagement Report.

Read more about our Climate Policy Engagement Report

JUST TRANSITION

We take a whole-society approach to reaching net zero, respecting labor and human rights while creating decent jobs.

Decarbonizing in line with the Just Transition
We are committed to decarbonization in line with the Just Transition principles, assessing and addressing the impacts of our journey to net zero on four key stakeholder groups: our people, our suppliers, our communities and our customers.

Holcim is committed to fostering a Just Transition where the well-being of our key stakeholders is prioritized. Our Just Transition commitments ensure the most equal and inclusive solutions for progress toward our net-zero journey to decarbonize the built environment.

By promoting a fair and holistic approach, Holcim seeks to ensure that everyone, including people from marginalized and disadvantaged groups, has the opportunity to lead fulfilling and sustainable lives characterized by dignity, inclusivity and empowerment.

Our Just Transition plan
Our comprehensive Just Transition plan will represent our commitment to implementing a series of substantive actions as we transition to a low-carbon economy. These actions will be designed to support our key stakeholders, such as employees, unions, communities, suppliers and customers throughout our decarbonization projects.

UPSKILLING PEOPLE

EMPOWERING OUR WORKFORCE IN BELGIUM

As part of our GO4ZERO project in Obourg, Belgium (see page 16), we launched an extensive upskilling and reskilling program that will run until 2027. Targeting approximately 170 employees, from factory workers to managers at the plant, this initiative reflects our commitment to a Just Transition by equipping our people with the necessary skills to drive operational excellence and achieve our strategic goals.

A key focus is on technical training delivered through workplace learning, which will ensure hands-on experience in real-world operational contexts. To prepare employees for this phase, group tools such as iCecil will be used during e-learning sessions, offering a seamless transition into practical applications.

Beyond technical expertise, the program incorporates soft skills development to foster a future-ready workforce capable of navigating dynamic environments.

Read more about the Just Transition at Holcim

As part of our GO4ZERO project in Obourg, Belgium, we launched an extensive upskilling and reskilling program

Our employees

We are committed to supporting our employees and empowering them with the necessary skills to thrive in a rapidly evolving net-zero future. To ensure the successful implementation of our decarbonization projects with a highly engaged workforce, we provide initiatives such as comprehensive training, reskilling and upskilling opportunities, redeployment options and fair compensation packages.

Our suppliers

Holcim's principles of respect for human and labor rights, protecting the environment and our commitments to climate and nature are integral to how we work with our suppliers. As part of this effort, we are engaging our suppliers to identify and manage the environmental impact of their operations and the life cycle of products and services we purchase from them. We focus our efforts on products and services that have the highest impact on climate, water, air emissions, waste, biodiversity and land use.

Our customers

To help our customers build better with less, we are developing low-carbon and recycled products and solutions worldwide. We are becoming a global leader in roofing with systems spanning cool, green and solar-enabling roofs. We drive cutting-edge innovation for customers, from 3D printing to ultra-high-strength concrete. The Holcim Sustainable Construction Academy improves knowledge of sustainable construction practices to accelerate the transition to net zero.

Our communities

Holcim remains fully committed to creating a positive social impact in the communities where we operate. We aim to decarbonize while providing high-value jobs, increased affordable housing and skills development. We promote sustainable development through innovative building materials and solutions to enable our communities to thrive in safe and resilient environments.

CLIMATE REPORTING

Gasholders in London's King's Cross features Holcim's Ductal® precast concrete panels, as part of the redevelopment of heritage buildings as exclusive residences

IN THIS SECTION

58 Climate governance
62 Climate and nature-related risks and opportunities
80 Scenario analysis
84 Performance data tables

HEALTH, SAFETY & SUSTAINABILITY COMMITTEE (HSSC)

Philippe Block (Chairman)
Leanne Geale
Catrin Hinkel
Naina Lal Kidwai
Claudia S. Ramirez

The Health, Safety & Sustainability Committee supports and advises the Board of Directors on the development and promotion of a healthy and safe environment for employees and contractors as well as on sustainable development and social responsibility.

For information on the role of the Health, Safety & Sustainability Committee with regard to governing the risks and opportunities around sustainability, including climate change, please see the table on the right.

In 2024, the Health, Safety & Sustainability Committee held four ordinary meetings. The average duration of the meetings was one hour and forty minutes.

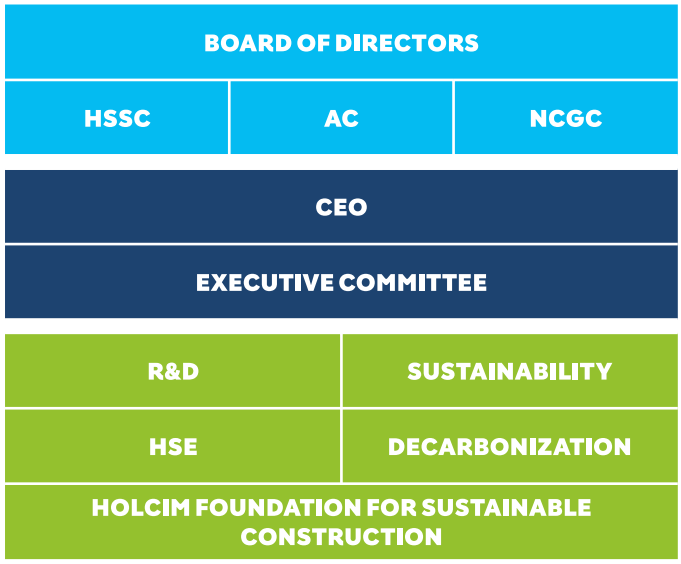
In 2024, the topics discussed by the Health, Safety & Sustainability Committee included:

- Health, safety and environment KPIs and focus areas, in particular root causes for fatalities and strategic initiatives to reduce air emissions.
- Sustainability focus areas and ESG strategy including:
  - The Group's third Climate Report, presented at the 2024 AGM receiving 95.07% approval by shareholders.
  - Launch of the sector's most ambitious decarbonization roadmap in Europe including seven EU-awarded carbon capture, utilization and storage (CCUS) projects.
  - Strategic Nature roadmaps for each country to reduce freshwater used as well as a science-based measurable positive impact on biodiversity.
  - Holcim named by the Science Based Targets Network (SBTN) as one of the first three companies globally to adopt science-based targets for nature.
  - Strategic People roadmaps for each country to meet social initiatives, pending targets, human rights assessments and affordable housing programs.
- Holcim's response to adverse events; mainly geopolitical events, pandemic/epidemic outbreaks, natural disasters.
- Security & Resilience program, in particular the updated governance and key performance indicators.

The Health, Safety & Sustainability Committee Charter is available at: *holcim.com/regulations-and-reporting*

Climate governance, read more on page 60

HOLCIM GOVERNANCE APPROACH CLIMATE- AND NATURE-RELATED RISKS AND OPPORTUNITIES



Board of Directors (BoD)
Ultimate responsibility for strategy and overall governance of the company, including Holcim's climate strategy. Through the AC and the HSSC, the BoD oversees Holcim's risk management and internal control Process, including sustainability/climate and nature-related risks and opportunities.

Health, Safety & Sustainability Committee (HSSC)
Consists of five BoD members. Advises BoD on all matters related to sustainability, including climate and nature.

Executive Committee
Responsible for execution of the sustainability strategy including climate and nature strategies.

Chief Sustainability Officer (CSO)
Climate and nature issues are managed on an operational level by the CSO, an Executive Committee-level position. The CSO is supported by a core sustainability team.

Core Sustainability Team
A cross-disciplinary department responsible for developing and overseeing the deployment of Holcim's sustainability strategy.

R&D team
- Around 74% of resources at the Group's Innovation Center in Lyon, France, are dedicated to low-carbon products.
- Since 2021, 90% of new patent applications filed relating to cement-based products support our sustainability goals. 50% of new patents support sustainable solutions such as CCUS and low-emission construction materials. 25% relate to sustainability drivers such as 3D printing.

Decarbonization Team
Accelerates the implementation of both our traditional and next-generation decarbonization levers based on bottom-up decarbonization plans for every cement plant.

Alpentherme Gastein in Bad Hofgastein, Austria, built using Holcim Elevate GeoGard EPDM membrane

Long-term incentives

Our compensation philosophy is to align a significant portion of Executive Committee compensation with long-term company performance and to strengthen alignment with shareholders' interests. To support "Strategy 2025 – Accelerating Green Growth", the grant awarded under the long-term incentive consists of both performance shares and performance options.

Performance shares

Performance shares are subject to a three-year vesting period based on three equally weighted performance objectives: Earnings per share (EPS) before impairment and divestments, Return on Invested Capital (ROIC) adjusted for material changes in scope, and sustainability. These performance objectives have been chosen as they reflect the Group's strategic priorities of increasing profitability through strong operating leverage (EPS), improving how the company generates profits relative to the capital it has invested in its business (ROIC) and mitigating the company's impact on the environment (sustainability). The sustainability objective encompasses three pillars of the company's sustainability strategy, in line with Holcim's commitment to building a net-zero future with science-based targets (see also the box on the right):

- Climate: reduction of CO_2 emissions (Scope 1) per ton of cementitious material produced (50% by weight). Scope 1 includes all emissions released directly from operations and accounts for around 61% of the Group's overall footprint. These are at the core of Holcim's emissions strategy.
- Circularity: construction demolition materials (CDM) (25% by weight). To align the circularity performance objective in upcoming regulatory frameworks, the waste-derived resources performance objective was replaced by CDM. This is defined as the total volume of recycled material that comes from the construction, renovation, repair and demolition of houses, large building structures, roads, bridges, piers and dams.
- Nature: reduce freshwater withdrawal per ton of cementitious material produced (25% by weight).

For all three objectives, the board determines a threshold performance level (below which there is no vesting), a target level (vesting of 100%) and a stretch performance level (vesting of 200%). Vesting is calculated on a straight-line basis between these levels.

Performance options

Performance options are subject to a five-year vesting period based on Holcim's relative total shareholder return (TSR) compared with a group of peer companies. They have a maturity of ten years. Threshold vesting (25% of the maximum) will be achieved if the median of the peer group is reached, target vesting (50% of maximum) will be achieved if the 60th percentile is reached, and full vesting (100%) will be achieved if the 75th percentile is reached on average during the five-year vesting period. There will be no vesting for performance below the median of the peer group. The vesting level between threshold, target and full vesting is calculated on a straight-line basis. The companies of the peer group are the same as for the annual incentive and are listed on page 172 in the *2024 Integrated Annual Report*.

Once vested, the LTI awards (performance shares and performance options) are not subject to any further holding period. The performance option can be exercised during a period of five years following vesting.

Unvested LTI awards shall be forfeited upon termination of employment, except in the case of retirement, ill health, disability, employment in a company/business that ceases to be a Group member, termination by the employer within 18 months of a relevant merger & acquisition transaction or in any other cases at the discretion of the NCGC. In such circumstances, unvested LTI awards are subject to a pro rata vesting (for the number of full months between the grant date and the termination date), without acceleration i.e., the vesting of the pro-rated number of awards will occur on the regular vesting date, subject to performance measurement over the entire performance period. In the event of death or a change of control (unless the unvested LTI awards are replaced by an equivalent award following the change of control), unvested LTI awards vest immediately on a pro rata basis assuming that performance conditions are met. For the sake of clarity, LTI awards always lapse when termination is due to voluntary resignation or gross misconduct.

LTI awards are subject to clawback and malus provisions for a period of three years after vesting in case of financial restatement, error or if inaccurate or misleading information was used to assess the fulfillment of performance conditions or a termination for cause.

The design of the long-term incentive for the Executive Committee is summarized on the following page.

Science-based targets

Holcim's commitment to building progress for people and the planet includes ambitious targets related to climate, waste and freshwater withdrawal. Holcim was the first global building materials company to sign the "Business Ambition for 1.5°C" pledge with the Science Based Targets initiative (SBTi) and in November 2022 it upgraded its 2030 climate targets, validated by SBTi, in line with the sector's new 1.5°C science-based framework.

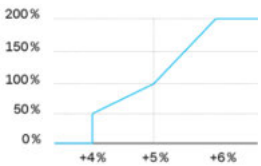
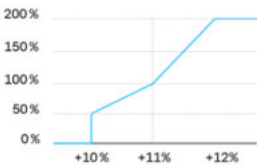
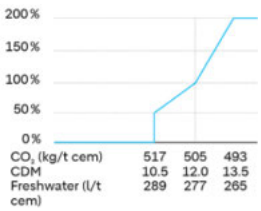
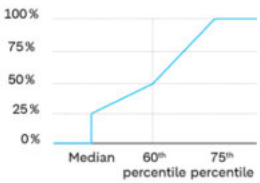
The CO_2 target included in the performance objectives of the long-term incentive is based on CO_2 targets validated by the SBTi.

2025 onwards

The design of the LTI remains unchanged for 2025.

DESIGN OF THE LONG-TERM INCENTIVE

Role	CEO	Other Executive Committee members
Grant size in 2024	177.4% of salary (125% in performance shares, 52.4% in performance options)	96.3% of salary (70% in performance shares, 26.3% in performance options)

Performance objectives	EPS growth before impairment and divestments (performance shares)	ROIC (performance shares)	Sustainability (performance shares)	Relative TSR (performance options)
Purpose	Measure the company's profitability to investors	Measure the company's ability to generate returns from invested capital	Measure the company's improvement in terms of mitigating the impact of its operations on the	Measure the company's ability to provide investors with strong returns
Definition	EPS adjusted for after-tax gains and losses on disposals of Group companies and impairments of goodwill and long-term assets It is defined as: +/- Net income/loss +/- Gains and losses on disposals of Group companies, net of taxation +/- Impairment of goodwill and long-term assets, net of taxation : Weighted average number of outstanding shares	ROIC at year-end 2026, adjusted for changes in scope between 2024 and 2026 It is defined as: +/- Net operating profit/ loss after tax (NOPAT) : Average invested capital (average invested capital = invested capital at beginning of year + invested capital at year end, sum divided by 2) In case of material changes in the scope during the year, average invested capital is adjusted pro rata temporis	Climate and energy: net CO_2 emissions (Scope 1) measured in kg CO_2/t of cementitious material (50% weight); construction demolition materials (CDM) measured in million tons (25% weight); nature: freshwater withdrawn in liters of freshwater/t of cementitious material (25% weight)	Holcim's TSR over the five-year performance period, starting on 1 January 2024 and ending on 31 December 2028, expressed as a percentile ranking in a peer group of companies It is defined as: Share price at end of period - Share price at beginning of period + Dividends paid during the period : Share price at beginning of period
Weighting	33⅓% of performance share grant	33⅓% of performance share grant	33⅓% of performance share grant	100% of performance option grant
Performance period	2024–2026	2026	2026	2024–2028
Targets for the 2024 grant	EPS growth of 5% p.a. This is unchanged compared with the EPS target applicable to the performance shares granted in 2023	ROIC of 11% in 2026. This is an increase by 2 percentage points compared with the ROIC target for 2025 applicable to the performance shares granted in 2023 and is in alignment with "Strategy 2025 – Accelerating Green Growth"	CO_2 emissions of 505 kilograms per ton of cementitious material produced in 2026 compared with the target of 520 kilograms set in 2023. CDM of 12 million tons recycled in 2026 (new metric). Freshwater withdrawal of 277 liters per ton of cementitious material produced in 2026 compared with the target of 292 liters set in 2023	Ranking at the 60th percentile of the peer group. This is unchanged compared with the ranking target applicable to the performance options granted in 2023 and is in line with our ambition to outperform our peers in terms of shareholder return
Performance vesting				
Maximum vesting level	200%	200%	200%	100%
Vesting and holding periods	Three-year cliff vesting No further holding period	Three-year cliff vesting No further holding period	Three-year cliff vesting No further holding period	Five-year cliff vesting No further holding period 10-year maturity (in total)

CLIMATE AND NATURE RISKS AND OPPORTUNITIES

With sustainability at the core of our strategy, we have implemented a comprehensive approach to anticipating climate and nature-related challenges as well as enhancing our ability to accelerate green growth.

Identifying climate and nature risks and opportunities
As the global political and industrial agenda is firmly moving toward green growth, we see ambitious initiatives such as EU Green Deal and the U.S. Inflation Reduction Act, which aim to decouple economic growth from carbon emissions and resource use. Due to this shift in the political agenda, the risks and opportunities in relation to the emerging climate and resource-related policies are a key element of our Group Risk Management Process.

We have tailored our Group Risk Management approach to align with best practices and recommendations, creating specific bottom-up assessments done by each country dedicated specifically to climate and nature topics. Adopting an integrated risk and opportunity approach allows Holcim to balance climate and nature risks against other material risks and opportunities, such as those related to strategic, operational or external topics and to facilitate the prioritization of the main threats. Our comprehensive climate and nature risk and opportunity assessment includes, but is not limited to, regulation and public policy scenarios, economic assumptions and project contingencies for significant CapEx projects such as those related to carbon capture utilization and storage as well as new production processes and technologies aimed at resource saving and efficiency.

Short- and medium-term assessments
Climate and nature risks are assessed over both the short (< 3 years) and medium term (< 10 years) in line with our 2030 sustainability targets. This enables operational teams to anticipate and adapt their business strategy, engage with key local stakeholders and prepare for potentially more stringent climate and nature regulations as well as new market conditions. Long-term risks and opportunities (up to 2050) have been assessed as part of our scenario planning (pages 80–83), whereby we tested the resilience of our strategy and the opportunities offered by innovative technologies.

Aligned with our Enterprise Risk Management (ERM) methodologies, the risks include the inherent risk level (without consideration of the mitigations in place) and the residual risk level (after consideration of the mitigations in place). Any residual risk that remains uncovered must be reduced through action plans documented in our risk Management system. These are subject to a follow-up by the country Risk Leads.

CLIMATE & NATURE RESILIENCE AND ADAPTATION PROGRAM

The Group has implemented a climate and nature resilience and adaptation program to identify and mitigate the potential impacts of current and future climate and nature physical risks on our people, economic activities and assets. Our technology identifies projected site-level risks over a range of climate pathways and time periods, using the climate scenarios of the Intergovernmental Panel on Climate Change (IPCC). This year, we increased the coverage of our assessment to include 322 cement plants as well as Solutions & Products sites.

Read more about the program on page 71

Monitoring and reporting

At country level, the risk assessment involves all business areas. Involvement of the country Executive Committee and country Chief Executive Officer (CEO) is required before submission to the Group. The objective is to make sure that all potential areas of concern are included in the risk map, and to ensure that the risk assessment follows a forward-looking approach integrating potential risks arising from the strategic initiatives or projects that might occur in the next three to ten years. At Group level, country risk assessments are consolidated and adjusted, accounting for insights from Group level stakeholders, to consider local and global impacts.

We consider that any risk that impairs the achievement of our long-term target is substantive. We also consider the impact on the Group's or local operation's reputation with investors, rating agencies, regulators and other external stakeholders such as NGOs or media.

Once consolidated, all assessments are summarized in our Group Risk Report which is presented to the Audit Committee together with the Internal Audit Plan. Adopting an integrated risk and opportunity approach allows us to balance climate and nature risks against other material risks and opportunities, such as ones related to strategic, operational or external topics and facilitate the prioritization of the main threats.

TCFD/TNFD ADOPTION TIMELINE

Holcim's journey toward implementing and promoting Task Force on Climate-Related Financial Disclosures (TCFD), and Taskforce on Nature-related Financial Disclosures (TNFD) recommendations.

2018
Implementation of TCFD framework
Dedicated governance, strategy, risk management and metrics are specifically designed to address the climate challenges.

2020
Participation in the TCFD Preparer Forum for the construction sector
Recognized as a reference in providing climate-related disclosures, our company committed to the promotion of TCFD recommendations.

2021
TNFD launch
Holcim selected to be an official task force member of the TNFD (one of 17 corporate companies selected).

2022
Industry's first Climate Report
With our Climate Report, a first in our sector, we further strengthened our climate-related disclosures and transparency by setting out our decarbonization roadmap in detail. In 2023, our second Climate Report received a 95.75% advisory vote in favor from our shareholders.

2023
Early adopter of the TNFD framework
Leveraging the integration of the TCFD into the ERM process, the company performed a gap analysis and started to incorporate nature elements into the ERM process to ensure full compliance with TNFD in 2024.

2024 and beyond
Implementation of TNFD framework
Holcim has fully implemented a dedicated process to identify, assess, prioritize and monitor nature-related dependencies, impacts, risks and opportunities.

TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES (TCFD) ALIGNMENT

GOVERNANCE	**Board oversight** • Refer to the *2024 Integrated Annual Report*: "Holcim governance approach climate and naturerelated risks and opportunities," page 143, "Information and control instruments of the Board of Directors," page 145, and "Risk and control" section > "Roles and responsibilities," page 194	**Management's role** • Refer to "Risk and control" section > "Roles and responsibilities," page 194 in the *2024 Integrated Annual Report*	
STRATEGY	**Risks and opportunities over the short, medium and long term** • Refer to "Climate and nature risks and opportunities" section, pages 62–78, and "Climate and nature physical risks" section, pages 71–73	**Impact on the organization's business, strategy and financial planning** • Refer to the *2024 Integrated Annual Report*: "Risk and control" section, pages 194–235, "Climate and nature risks and opportunities" section, pages 214–230, and "Climate and nature physical risks" section, pages 223–225	**Scenario planning** • Refer to "Climate and nature risks and opportunities" section > "Scenario planning", pages 80–83
RISK MANAGEMENT	**Climate change-related risks identification and assessment** • Refer to the *2024 Integrated Annual Report*: "Risk and control" section, pages 194–235, "Climate and nature risks and opportunities" section, pages 214–230, "Climate and nature physical risks" section, pages 223–225	**Climate change-related risks management** • Refer to the *2024 Integrated Annual Report*: "Risk and control" section, pages 194–235, and "Climate and nature risks and opportunities" section, pages 214–230, "Climate and nature physical risks" section, pages 223–225	**Integration into overall risk management** • Refer to the *2024 Integrated Annual Report*: "Risk and control" section, pages 194–235, and "Information and control instruments of the Board of Directors", page 145
METRICS AND TARGETS	**Reporting CO_2 metrics** • Refer to sustainability performance data tables on pages 85–87	**Details Scope 1, 2 and 3** • Refer to sustainability performance data tables on page 87	**CO_2 targets** • Refer to sustainability performance data tables on page 85

TASK FORCE ON NATURE-RELATED FINANCIAL DISCLOSURES (TNFD) ALIGNMENT

GOVERNANCE	**Board oversight** • Refer to the *2024 Integrated Annual Report*: "Holcim governance approach climate and nature-related risks and opportunities", page 143, "Information and control instruments of the Board of Directors", page 145, "Long-term incentives", page 175, and "Risk and control" > "Roles and responsibilities", page 194	**Management's role** • Refer to "Risk and control" > "Roles and responsibilities", page 194 in the 2024 Integrated Annual Report **Organization's engagement with local stakeholders** • Refer to "Human rights – salient risks", pages 212–213 in the *2024 Integrated Annual Report*
STRATEGY	**Identification of nature-related dependencies, impacts, risks and opportunities over the short, medium and long term** • Refer to the *2024 Integrated Annual Report*: "Material priorities", pages 196–197, "Climate and nature risks and opportunities", pages 214–230 **Effects of nature-related dependencies, impacts, risks and opportunities on the organization** • Refer to the *2024 Integrated Annual Report*: "Our approach", pages 56–57, "Climate and nature risks and opportunities", pages 214–230	**Resilience taking into account different scenarios** • Refer to "Climate and nature risks and opportunities," pages 62–78, "Scenario analysis," pages 80–83 **Location of assets and activities in direct operations, upstream and downstream that are in priority locations** • Refer to sustainability performance data tables on pages 384–385 in the *2024 Integrated Annual Report*
RISK AND IMPACT MANAGEMENT	**Identification and prioritization of impacts, dependencies, risks and opportunities in direct operations** • Refer to the *2024 Integrated Annual Report*: "Our approach," pages 56–57, "Material priorities", pages 196–197, "Climate and nature risks and opportunities", pages 214–230 **Identification and prioritization of impacts, dependencies, risks and opportunities in upstream and downstream value chain** • Refer to "Climate and nature risks and opportunities", pages 62–78	**Managing impacts, dependencies, risks and opportunities** • Refer to "Climate and nature risks and opportunities", pages 62–78 **Integration with overall risk management processes** • Refer to the *2024 Integrated Annual Report*: "Risk and control", pages 194–235, "Information and control instruments of the Board of Directors", page 145
METRICS AND TARGETS	**Metrics to manage risks and opportunities** • Refer to the *2024 Integrated Annual Report*: "Climate and nature risks and opportunities", pages 214–230, sustainability performance data tables on pages 379–385 **Metrics dependencies and impacts on nature** • Refer to the *2024 Integrated Annual Report*: "Our approach", pages 56–57, sustainability performance data tables on pages 379–385	**Targets and goals** • Refer to the *2024 Integrated Annual Report*: "Our approach", pages 56–57, sustainability performance data tables on pages 379–385

CLIMATE AND NATURE RISKS AND OPPORTUNITIES DESCRIPTIONS

Our climate and nature risks and opportunities assessment is fully aligned with TCFD and TNFD frameworks.

Climate risks and opportunities have been fully accounted for in our transformational business model, which has four strategic decarbonization pillars: decarbonizing operations, decarbonizing construction, decarbonizing cities and circular construction.

Nature risks and opportunities have been integrated into the company strategy in order to reduce our most material nature-related impacts and dependencies, preserve biodiversity and ecosystems and prepare for potentially more stringent nature-related regulations.

We believe that the risks and opportunities presented here represent the most material risks and opportunities for our company, although other risks or opportunities might materialize, especially as policy, economic or technological landscapes evolve.

CLIMATE RISKS	
Policy and Legal	**Carbon pricing mechanisms (and other climate policies)**
Market	**Slow market acceptance for low-carbon products and solutions**
Technology	**Feasibility of new technologies (including CCUS) across all relevant geographies**
Reputation	**Damaged reputation due to undocumented or unsubstantiated green claims**
Physical risk	**Damaged assets and operations**

CLIMATE OPPORTUNITIES	
Resource efficiency	**Accelerating circularity in construction**
Energy source	**Access to competitive decarbonized energy**
Products / services	**Decarbonizing the built environment**
Markets	**Growing demand for low-carbon and climate-resilient solutions and products**

NATURE RISKS	
Policy and Legal	**Nature-related policies**
Market	**Price of raw materials and natural inputs**
Technology	**New production processes and technologies for resource saving and efficiency**
Reputation	**Reputational damage**
Liability	**Liability arising from legal claims**

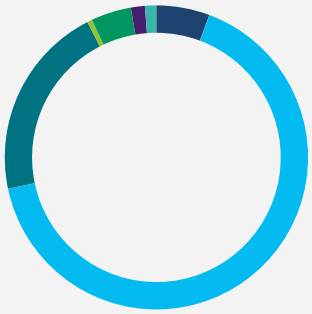
NATURE OPPORTUNITIES	
Resource efficiency	**Operational efficiency and reduced dependence on natural resources**
Market	**Growing demand for biodiversity and nature-driven products and solutions**
Reputation	**Reputational capital**

CLIMATE RISK CARBON PRICING MECHANISMS (AND OTHER CLIMATE POLICIES)

Description	Potential impact	Our response
Transitioning to a decarbonized business model depends on effective climate policies with robust carbon pricing mechanisms such as the EU ETS, which requires stable, transparent, and equitable CO_2 pricing. Volatility or misalignment in carbon pricing schemes, particularly outside the EU (e.g., in the U.S.), could significantly impact the achievement of our net-zero targets and hinder long-term planning.	Even though the political and industrial agenda is firmly moving toward green growth, ineffective climate policies and carbon pricing mechanisms could lead to a misalignment between our efforts to reach net-zero emissions and the regulatory framework. On the contrary, more stringent and well-designed CO_2 regulations, and the associated set of environmental measures, would reinforce our competitive advantage as we decarbonize following our ambitious emissions targets. In Europe, the Emissions Trading System (ETS), as well as Swiss and UK schemes associated with the Carbon Border Adjustment Mechanism (CBAM), strongly encourage industries to decarbonize and tackle climate change. However, CBAM's effective and fair implementation, including strict measures to prevent circumvention, will be critical to maintaining a level playing field between domestic manufacturers and importers. In the U.S., while there is no national carbon pricing framework comparable to the EU ETS, recent initiatives have moved the agenda towards green growth, such as the Inflation Reduction Act in 2022, which created incentives to deploy low-carbon and resource efficient technologies at scale. Additionally, Article 6 of the Paris Agreement opens up new avenues for international cooperation on climate action by allowing countries to voluntarily collaborate. Alongside this voluntary collaboration principle, the Voluntary Carbon Market (VMC) and the Book & Claim mechanism – although operating outside of state or intergovernmental frameworks – also offer promising opportunities to achieve sustainability targets where it proves challenging. While they offer promising pathways to net-zero targets, robust regulation, including stricter verification and tracking of emissions reductions, is crucial to ensure their integrity and effectiveness. In the long term, we anticipate additional sets of measures in the journey to a low-carbon economy, such as the ones that set rules for explicit green claims or for communications to the financial markets. New carbon markets and pricing mechanisms that create a robust environment that encourages direct investments towards sustainable projects and helps scale up sustainable development towards the objectives of the European Green Deal, represent an opportunity for our Group. **Impacts on financial reporting** Useful lives of assets may be affected by climate-related matters because of transitional risks such as obsolescence and legal restrictions. The change in useful lives has a direct impact on the amount of depreciation or amortization recognized each year. Management's review of useful lives has taken into consideration the impacts of the Group's 2030 targets. It can also lead to the impairment of operating assets that no longer comply with more stringent environmental measures. Climate-related matters may affect the level of provisions recognized, such as site restoration provision and litigation provision as a result of the levies imposed by governments for failure to meet climate-related targets or new regulations, requirements to remediate environmental damages on Holcim's sites or due to existing obligations now being considered more likely. Some contracts may become onerous as a result of climate-related changes, which would potentially decrease the Group's revenue or increase its operating costs.	Our CO_2 reduction roadmap follows a best-in-class approach with both our 2030 and 2050 targets (net-zero pledge) validated by the SBTi as aligned with 1.5°C. To accelerate green growth, Holcim is deeply transforming its business model in order to be a major player in decarbonizing building across the value chain, to reduce emissions and build smarter and better with less. Changes in regulatory frameworks worldwide are regularly monitored centrally to assess our exposure to new CO_2 pricing schemes, but also to identify opportunities and market incentives for low-carbon products, or any developments that require us to accelerate or adapt the deployment of our decarbonization roadmap. Aligned with the most recent regulatory moves towards sustainable green growth such as Europe's Green Deal and the US Inflation Reduction Act, our "Strategy 2025 – Accelerating Green Growth" has put decarbonization at the heart of our industrial and commercial strategy, driving circular construction to build better with less and developing solutions to make cities greener from foundation to rooftop. Holcim continues to proactively and transparently engage with external stakeholders and advocate for climate policies that are aligned to the Paris Agreement 1.5°C, which enables us to accelerate the deployment of low-carbon solutions to execute and meet the objectives of our decarbonization roadmap. With that perspective, we support enhancements of the regulatory environment globally that aim to: • Support the business case to invest at scale in decarbonized technologies (including CCUS). • Incentivize market demand for decarbonized and circular solutions. • Facilitate access to competitive decarbonized energy. • Implement effective carbon pricing mechanisms and enable industry to remain competitive on the global stage.

CLIMATE RISK CARBON PRICING MECHANISMS (AND OTHER CLIMATE POLICIES CONTINUED

OVERVIEW OF OUR EXPOSURE TO CO_2 REGULATIONS



Scope 2 emissions uncovered	5.7%
Scope 1 emissions uncovered	66.0%
EU ETS	20.8%
UK ETS	0.5%
Canada provincial schemes	4.3%
Swiss ETS	1.5%
Carbon taxes	1.2%

- Currently, 28% of our emissions are exposed to CO_2 regulations.
- Besides carbon pricing and taxes, other climate policies might have an influence on our decarbonization roadmap, especially those policies that allow us to maintain the competitiveness of low-carbon technology investments in the cement industry, and that set rules for the re-use of captured CO_2, as well as waste management regulations.
- Europe is the most advanced region, with a mature Emissions Trading Ssystem (ETS) which incentivizes carbon reduction initiatives. Coupled with other climate policies (revised building codes, EU Taxonomy), Europe offers huge opportunities for the successful implementation of our net-zero roadmap.
- The U.S. stands apart, as the country is a patchwork of federal and state regulations mostly not covered by an ETS, despite certain states having one or planning to implement one. However, the current approach is based on mostly voluntary initiatives, with few federal regulations being implemented, while certain states are setting regulations and standards (building codes, public procurement, transparent communication), which might not be enough to support decarbonization efforts and investments in breakthrough technologies. However, the recent Inflation Reduction Act (2022), promoting investments in decarbonization projects and securing long term strategies, is likely to offer a specific path to a decarbonization model.
- Latin America is moving toward carbon regulation similar to the EU ETS, with pilots in certain countries, notably Mexico. We anticipate that the implementation of carbon pricing in Latin America will support our efforts to decarbonize.
- In the long term, the absence of more stringent and ambitious CO_2 regulation in Middle East, Africa or Asia may lead to future conflicts between financial performance and emission reductions, should market dynamics be insufficient to support decarbonization efforts.

CLIMATE RISK SLOW MARKET ACCEPTANCE FOR LOW-CARBON PRODUCTS AND SOLUTIONS

Description	Potential impact	Our response
Holcim's decarbonization journey entails the capacity to meet customers' product quality and decarbonization expectations. Indeed, the successful launch of our global low-carbon brands ECOPact and ECOPlanet exposes the Group to new threats should the Group be unable to build strong credibility with its customers, document and back up environmental claims, develop strategic partnerships, leverage differentiating capabilities or promote a marketing and product-led approach within the Group.	Slow market acceptance for low-carbon products and solutions could lead to revenue losses due to reduced demand and limit margin improvements. While there is no viable, affordable and local substitute for cement on a global scale, increased pressure to decarbonize the built environment may support growing demand for low-carbon products and solutions, thus potentially increasing our market share in the range of low-carbon cement and sustainable solutions. **Impacts on financial reporting** Impairment testing is performed at cash generating unit (CGU) level. In assessing the valuation of a CGU, future cash flows are estimated. This includes making assumptions in relation to the impact of climate-related matters on future profitability. The impact of climate-related matters could result in higher costs and reduced revenues affecting the future taxable profits on which the recognition of deferred tax assets is based. Business plans used for the recognition of deferred tax assets are aligned with those used in the impairment process, taking into account climate-related impacts.	Our approach is to meet customer needs along the entire construction value chain by developing and delivering solutions that address both customer expectations regarding product quality and safety as well as today's major construction challenges (scarcity of resources, sustainable and resilient infrastructure, urbanization), turning sustainable growth into profitable growth. We offer our customers advanced sustainable solutions to best meet their needs and have already expanded our multi-billion brands delivering value-added margins. We have built billion-dollar low-carbon brands from ECOPact concrete to ECOPlanet cement. By 2030, Holcim will grow both brands, which offer customers at least 30% less CO_2 compared with local standard (CEM I/OPC) concrete and cement. With the help of carbon capture, we are aiming to produce eight million tons of fully decarbonized ECOPlanet cement per annum by 2030. Where possible, our solutions are independently verified through Environmental Product Declarations (EPDs), which validate the environmental profile of our products and ensure transparency.

CLIMATE RISK FEASIBILITY OF NEW TECHNOLOGIES (INCLUDING CCUS) ACROSS ALL RELEVANT GEOGRAPHIES

Description	Potential impact	Our response
The inability to deliver Carbon Capture Utilization and Storage (CCUS) projects or develop necessary technologies that meet both technical and financial expectations could inhibit Holcim from achieving its decarbonization targets.	The successful scaling up of CCUS relies on accurate projections of external factors such as compatibility with CO_2 usage opportunities, climate regulations, market acceptance of low-carbon products, the existence of large transportation infrastructure as well as other aspects of viability and scalability. In addition, there are contingencies related to the management of the projects especially in regard to the management of technical interfaces and the relationships with stakeholders (public administrations, partners, suppliers, communities). In the long term, should CCUS be confirmed as the main technology to remove CO_2, there is a risk of stranded assets where CCUS is not feasible (absence of transport infrastructure, insufficient storage capacities, insufficient renewable power or water supply, etc.), and may subsequently risk the loss of leadership in the decarbonization journey. The pathway from 2030 to 2050 also integrates a large range of both new and established decarbonization technologies including novel binders (calcined clay), zero-emission vehicles and low-clinker cements. For the latter, higher prices for mineral components (MIC) such as slag and fly ash challenge our CO_2 reduction roadmap, as the integration of MIC in our cement production process is a key lever for the reduction of clinker factor and thus reduction of our CO_2 footprint. **Impacts on financial reporting** Useful lives of assets may be affected by climate-related matters because of transitional risks such as technological obsolescence. It can also lead to the impairment of operating assets. Sustainability is now a key factor considered by the Group in any investment decision. The transition to lower-emission technologies will impact the allocation of future CapEx. The Group's R&D expenditures are aligned with the strategy to focus on new and alternative technologies that, as a result of diverse research initiatives, may either impact CapEx or R&D costs in the statement of income, depending on the success of the initiatives.	We investigate every opportunity, at every stage of a building's life cycle, to eliminate emissions and build smarter and better. Leveraging proven processes and existing technologies, we are optimizing our own consumption of resources, using low-carbon energy and fuel, and reducing our water use. In line with our "Strategy 2025 - Accelerating Green Growth", we are accelerating the decarbonization of our own operations to become a net-zero company by switching to renewable energy, developing new formulations, adopting decarbonized mobility and harnessing advanced technologies such as carbon capture, utilization and storage (CCUS). Furthermore, in 2024 the Group continued to successfully demonstrate its ability to bolster its net-zero future through CCUS with an additional project selected by the European Union (EU) Innovation Fund to capture a total of 5 million tons of CO_2 from 2030. With seven projects now selected for EU Innovation Fund grants and additional projects at an advanced stage of planning, we are further reinforcing our solid portfolio of CCUS projects globally. Based on various technologies, robust partnerships and value chains, these sites are well positioned to become net-zero cement plants and drive our Group to net zero. Holcim is a partner of choice in the CCUS ecosystem in Europe and continues to actively engage with public authorities, industry partners, customers and communities. In addition, new economic conditions could emerge in the long term (steady development of e-fuels, growing usage of captured CO_2 by the chemical industry) and drive a significant shift from CO_2 storage to CO_2 utilization, improving the profitability of CCUS and offering new prospects for this business model. Holcim also continues to explore promising opportunities such as smart design, novel binders, kiln electrification and the use of hydrogen.

HARNESSING PROMISING CCUS PROJECTS TO REACH NET ZERO

It is clear that no single solution will be scalable at every location, since different environments present different conditions. Consequently, there is a risk of us not capitalizing on every promising opportunity offered by CCUS, thus compromising our decarbonization agenda. For this reason, we have ensured that our portfolio of projects is based on the broadest selection of mature technologies and applications (including those with proven results in other industries), offering the largest range of possible solutions to implement CCUS in locations based on the local context (existence and reliability of local infrastructure for CO_2 transportation or storage, industry partners, economic environment, regulatory frameworks).

The successful deployment of CCUS technology is underpinned by effective project management in order to build strong credibility with our partners and secure public funding. Holcim is thoroughly assessing the potential impacts on the environment and the communities where we operate throughout the full value chain:

- Energy consumption: Capturing CO_2 is an energy-intensive process. Our projects are assessed according to availability of renewable energy sources.
- Water withdrawals/consumption: CCUS typically requires water for the capture process, with a large portion of the water needed for cooling purposes, and may generate wastewater. Through the implementation of efficient closed-loop recycling systems and the shift to non-freshwater sources, the use and disposal of water will be managed carefully to minimize environmental impacts.
- Communities: We are looking at both onshore and offshore CO_2 storage facilities. Concerns around the safety of storing CO_2 underground and potential leaks that could impact nearby communities are thoroughly assessed.
- Scope 3 emissions: Depending on the application (storage or utilization), carbon capture technologies will have an impact on our Scope 3 emissions. These are evaluated project by project and accounted for in our Scope 3 modeling. The configuration and ownership of the carbon capture facility down the value chain will shape the accounting of Scope 1, 2 and 3 emissions. Holcim is monitoring the evolution of these standards and advocating for a fair and balanced approach.

The Group's long-term CCUS strategy is based on both planned and opportunistic timing of numerous CCUS projects, starting in locations where the context is the most relevant, especially in jurisdictions that are already proactively supporting CCUS technology or where transportation and storage infrastructure and geographies already exist. Accelerating the transition to a decarbonized economy, Holcim responsibly advocates for both onshore storage and the re-use of CO_2. We are actively partnering with stakeholders who support the transition to a decarbonized economy, including governments, industry bodies and equipment suppliers, to enable the development of the conditions required for success. Understanding the key success factors from the initial projects in Europe and North America, we will create an environment that will facilitate the implementation of CCUS in plants where opportunities for it are currently under development.

CLIMATE RISK GREEN CAPEX AT HOLCIM

Holcim puts sustainability at the core of our strategy to build a net-zero future. Our focus on green investments is a fundamental aspect of this strategy.

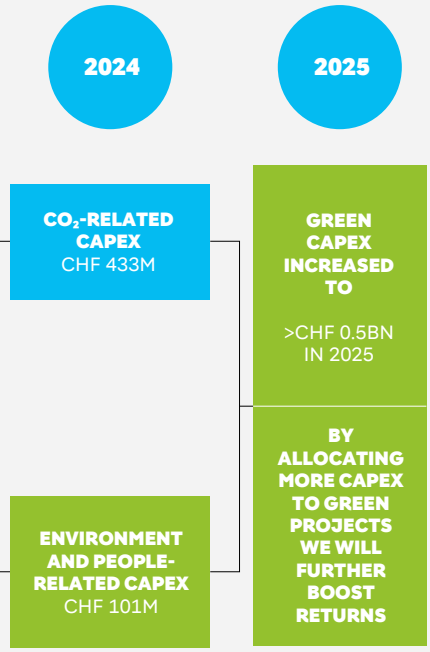
In 2024, our Green CapEx reached CHF 534 million, including investments of CHF 433 million in projects to accelerate our CO_2 reduction and circular economy, and CHF 101 million in environment and people-related projects. We will sustain our annual green CapEx at CHF 500 million by 2025. These investments will impact all our operations and geographies and will encompass existing technologies with proven returns.

We are committed to aligning capital expenditure plans with our long-term net-zero reduction target, which has been validated by SBTi and is aligned with the Paris Agreement's objective of limiting global warming to 1.5°.

Holcim Green CapEx classifications encompass a broad range of activities, including those not eligible under the EU Taxonomy, and consider a wider scope of environmental benefits. As a result, there are overlaps and differences between Holcim Green CapEx and the EU Taxonomy-aligned CapEx disclosed.

GREEN CAPEX CATEGORIES

PROCESS DECARBONIZATION	Reduce direct CO_2 emissions
CLEAN ENERGY	Waste heat recovery, renewable energy, electrical/efficient fleet
CARBON-EFFICIENT CONSTRUCTION	ECOPact, ECOPlanet, 3D printing
CIRCULAR ECONOMY	Alternative fuels, reuse of demolition materials, ECOCycle®
BIODIVERSITY, AIR AND WATER[1]	Preserve air, water and green roofs
PEOPLE AND COMMUNITIES	Affordable housing, health and safety



[1] CHF 0.4 million for biodiversity-related CapEx, CHF 9.4 million for water-related CapEx.

CLIMATE RISK DAMAGED REPUTATION DUE TO UNDOCUMENTED OR UNSUBSTANTIATED GREEN CLAIMS

Description	Potential impact	Our response
The Group's inability to meet its decarbonization commitments , if materialized, is likely to damage the Group's reputation and reduce our attractiveness to stakeholders such as customers, investors, and potential employees.	In light of increased public scrutiny on green claims, there is a growing reputational risk in case the Group does not achieve its climate targets, is found to have misreported its emissions, if its targets and claims are not ambitious enough, or if they are deemed incomplete, vague, ambiguous or insufficiently documented on a scientific basis. In addition, litigation on the basis of climate action failure (including misreporting of emissions) is emerging and could also exacerbate reputational damages. **Impacts on financial reporting** Holcim has increased diversification of financing instruments with, for example, sustainability linked bonds, which are linking our funding with our sustainability objectives. This could have an impact on the Group's financial expenses in the event the Group does not reach the targets that have been set.	The Group's first priority and strategy is Accelerating Green Growth as a global leader in innovative and sustainable building solutions. We continuously ensure our targets stay abreast with the latest scientific developments and the highest level of scientific rigor. For this reason, Holcim was the first company in its sector to have 2030 and 2050 net-zero targets validated by the Science Based Targets initiative (SBTi), as aligned with a 1.5°C pathway. To ensure emissions reductions are in line with our corporate targets and decarbonization roadmap, we establish plant-level climate mitigation. Furthermore, we ensure rigorous emissions accounting for both our direct and indirect CO_2 emissions, based on the latest emissions accounting protocols. Holcim notably engages with key suppliers and business partners to respond to climate risks, encouraging them to measure and manage their CO_2 impact in their operation and their supply chain. To reflect the credibility of our sustainability commitments to investors, Holcim ahead of a bond issuance always assesses the feasibility to offer sustainability linked bonds to its investors. More recently Holcim updated its financing framework and added the option to issue green bonds which will be associated to the bond offering. While our brands ECOPact and ECOPlanet are becoming multi-billion CHF brands, we ensure that each of those products follow strict clear global brand qualification criteria and adhere to international standards and consider both present and future frameworks.

CLEAR, TRANSPARENT CRITERIA FOR LOW-CARBON PRODUCT CLAIMS

ECOPact ECOPlanet

In 2021 and 2022, Holcim voluntarily and proactively launched brands with low-carbon criteria supported by clear, documented and publicly available credentials. In the absence of recognized external standards at the time, Holcim initiated its own definition of low-carbon products.

In recognition of the rapid increase in regulatory regulations and in accordance with our objective of fostering the emergence of internationally recognized standards for low-carbon products, Holcim is continuously updating and reinforcing the alignment of low-carbon brand definitions with external global frameworks such as the Industrial Deep Decarbonisation Initiative (IDDI) from United Nations Industrial Development Organization (UNIDO).

Transparency is key on Holcim's net-zero journey, and we are committed to providing reliable environmental information so that our customers can build with low-carbon materials in a transparent, verified way. We have partnered with Climate Earth to expand Environmental Product Declarations (EPDs) worldwide, utilizing Climate Earth's EPD Generator™ digital platform. As an independent verification system that validates the environmental profile of products including ECOPact and ECOPlanet, EPDs are vital to accelerating low-carbon demand and decarbonizing building at scale.

CLIMATE RISK DAMAGED ASSETS AND OPERATIONS

Description	Potential impact	Our response
The physical consequences of climate change (such as increased frequency and intensity of extreme weather events), have the potential to disrupt our operations on both on-site and value chain transportation activities, leading to higher costs and reduced production capacity (e.g. delayed planning approval, supply chain interruptions), business interruptions and even reputational damages.	For Holcim, water-related physical risks are particularly critical. Floods, often triggered by storms can severely disrupt our on-site operations and affect our river-based supply chains (shipping) and product delivery. In the meantime, climate change is affecting the on-site conditions of natural resources essential to Holcim's operations leading to nature-related risks that could severely threaten our business activities. For example, droughts can increase water scarcity which may lead to production disruptions, as water is a vital resource for our traditional businesses. As the climate changes, extreme weather events are likely to increase and intensify with potentially higher associated insurance costs. **Impacts on financial reporting** Physical deterioration of our production assets would result in potential impairment. Climate-related matters may affect the value of inventories as they may become obsolete as a result of a decline in selling prices or an increase in costs. The cost of inventories that are not recoverable must be written down to their net realizable value. Climate change may imply more frequent and intense climate events such as flooding or drought, which can have a significant impact on our production with business interruption, increased risk of accident or damages. This may increase our insurance costs due to the higher amounts at stake or more frequent insured cases.	Holcim sites need to be prepared to manage current and future physical climate-related risks that could disrupt our operations and production capacities. In 2024, our assessment of physical risks associated with climate change has been fully implemented, on a per site view and across the Holcim portfolio identifying the most material risks. At a Group level, the climate resilience and adaptation program works towards the protection of our people and the environments. Furthermore, a Group-wide climate risk assessment strengthens the decision-making process, mitigates financial losses due to asset damage and business interruption, and ensures adaptation to climate change based on scientific data.

FOCUS ON CLIMATE AND NATURE PHYSICAL RISKS

Identifying climate and nature risks

Our climate and nature resilience and adaptation program is embedded in our Enterprise Risk Management (ERM) process. It is designed to assess current and future exposure as well as capture site resilience and preparedness for these risks. This program ensures the protection of our people and assets, and compliance with the climate change adaptation (CCA) objective (EU Taxonomy).

We are integrating the results into a questionnaire for sites to assess the impacts of the risks, identify the adaptation solutions in place and define action plans to reduce exposure. Our 2024 assessment covered 320 sites, including integrated cement sites and associated quarries, grinding and blending stations, Geocycle sites, and selected insulation production sites. The impact level is defined as the impact to the entire Group and not the individual asset at risk.

Short-, medium- and long-term time horizons

For each location, changes to climate and nature physical risks are assessed based on the years 2025, 2030 and 2050 and under three future scenarios (SSP1-2.6, SSP2-4.5, and SSP5-8.5) from the Intergovernmental Panel on Climate Change's (IPCC) Sixth Assessment Report. The scenarios consider greenhouse gas concentration trajectories in the atmosphere that relate to a 1.5°C–2°C, 2°C–3°C and >4°C increase in the global average surface temperature by 2100 respectively.

Adaptation and resilience strategy

Following our risk assessment, we have a clearer understanding of our exposure to risks and the actions needed to adapt to climate change and nature dependencies. Our sites continuously adapt and enhance their resilience capabilities in line with the Group's Crisis Management System, which sets out the requirements for each operation to respond to physical risks, including an Emergency Response Plan, Crisis Management Plan, Business Continuity Plan and Evacuation Plan. The exercise also documents future CapEx needs and substantiates the economic rationale for the investment to respond to climate and nature physical risks and reduce our impacts and dependencies on nature and global raw resources.

Climate or Nature Physical Risk	Current Impact Level	Number of Sites Exposed (% out of total scope)[1]	Future Exposure (by 2050)[2]
Flood		13.8%	=
Storm/precipitation		15.9%	↑
Wildfire		8.1%	=
Landslide		7.5%	=
Drought		34.4%	↑
Extreme temperature		40.3%	↑
Water security		55.0%	↑

[1] Corresponds to short-term (2025) exposure to climate and nature physical risks.
[2] Corresponds to mid-term and long-term (from 2030 to 2050) exposure trend to climate and nature physical risks under Shared Socioeconomic Pathway 5-8.5.

Low negative impact on personnel, operations and assets.
Medium negative impact on personnel, operations and assets.
High negative impact on personnel, operations and assets.

The number of assessed sites (% of total scope) with high or very high current exposure to the climate or nature physical risk.

Climate projections indicate a long-term increase in the number of sites (% of total scope) with high or very high exposure to the climate or nature physical risk.

Climate projections suggest long-term stability in the number of sites (% of total scope) with high or very high exposure to the climate or nature physical risk.

Acute | Chronic | Nature

CLIMATE AND NATURE PHYSICAL RISKS ACUTE RISKS

Risk Description	Potential impact	Adaptation and resilience strategy
Flood Includes fluvial, riverine, pluvial floods and storm surges. The risk score is based on changes in precipitation patterns as well as other components such as topography, catchment area and runoff. Key Risk Indicators	As a building materials company, Holcim is exposed to high and low water levels and flooding events. These conditions can directly impede planned transportation schedules, as transportation routes may be blocked or submerged. In addition, operations may be slowed down or halted due to employees being unable to work as they cope with the flood. Critical equipment or infrastructure may also be damaged.	We have taken proactive steps to respond to flood risks by implementing climate adaptation measures, particularly in our businesses that are the most vulnerable to fluctuating water levels and flooding events. For example, in the U.S., we have implemented a response plan that involves altering transportation methods and production sourcing, making use of temporary seasonal floating storage and short-term rail track. Moreover, a comprehensive array of flood protection equipment (e.g. flood barriers, sandbags, drains on roofs), is proactively implemented and emergency reserves (e.g. backup power, fuel reserves, water bottles) are in place on sites. Additionally, dewatering systems are strategically deployed in relevant quarries to effectively handle higher rates of water infiltration. Beyond these preventative measures, Holcim is actively supporting communities affected by floods, as during the recent flooding event in eastern Spain (2024). We are committed to providing robust recovery effort support and sharing essential documents that outline effective individual strategies and valuable information for managers and leaders.
Storm/Precipitation Maximum daily precipitation (in mm) for a predefined event. Also includes windstorms and lightning storms. Key Risk Indicators	Storms associated with strong winds can damage buildings, trees, and infrastructure which may generate debris on roads and disrupt transportation. Power lines can also be disrupted which may lead to limited operations. Water storms may also lead to flooding events while runoffs may carry pollutants into waterways, contaminating water sources.	Holcim prioritizes safety during heavy storms, adjusting or temporarily halting production as necessary. Storm shelters are available for both personnel and critical equipment. Our proactive monitoring of cyclone alerts and river levels in Bangladesh notably enabled the company to suspend operations at its Mongla grinding station before Cyclone Remal made landfall, minimizing damage and ensuring employee safety in cyclone shelters. In addition, dedicated stormwater management and spill containment teams are in place to address stormwater runoff and prevent contamination. In the event of of lightning storms, a lightning arrester system and grounding system are used to reduce the impact of electrical discharges caused by lightning strikes.
Wildfire Likelihood of wildfire based on current land susceptibility to fire and projected hot and dry weather. Key Risk Indicators	Wildfires present a significant threat to quarries and cement facilities, particularly those situated near forested areas. Wildfires release smoke and particulate matter into the air, which can cause respiratory problems and other health issues. They can also lead to temporary shutdowns, damage essential infrastructure and disrupt transportation networks which may result in delays and increased costs.	Holcim has implemented a set of measures to prevent the spread of wildfires and protect its employees. This includes a fire emergency response plan (e.g., evacuation plan, fire drills) as well as proactive action plans such as managing areas around the plant to reduce wildfire proliferation (e.g., vegetation clearing). In addition, Holcim maintains installations and regularly checks fire-fighting infrastructure and equipment (e.g., water cisterns, fire walls, fire alarms, fire hydrant systems, fire extinguishers). We also conduct appropriate training of personnel on site. For instance in 2024, our preventive measures enabled us to safely evacuate our employees at the Rifle Port Terminal in Colorado during a wildfire in the vicinity.
Landslide Mass movement processes including rockfall, debris flows and mudslides. Key Risk Indicators	Extreme downpours increase the risk of landslides. Apart from the potential impact on people, a landslide may also damage building structures, entrap equipment, contaminate underground water systems and destabilize building foundations. Severe landslide damage to transport infrastructure can disrupt local supply chains.	Holcim has implemented a comprehensive plan that includes geological and landslide risk studies and the installation of slope stability monitoring equipment. Containment systems on access roads to quarries (e.g. berms, barriers, and mesh systems) and backup generators in case of damage to electrical infrastructures, are available to reduce the risk of business interruption. For instance, even though no recent landslide events, such as those in Ecuador (2022) or in Colombia (2024), had a direct impact on our people and operations, our sites were proactively prepared to ensure the safety of our employees.

CLIMATE AND NATURE PHYSICAL RISKS CHRONIC RISKS

Risk Description	Potential impact	Adaptation and resilience strategy
Drought Water stress locations based on the Standardized Precipitation Index (SPI) in combination with the number of heat wave days. Key Risk Indicators	Acute drought periods may lead to business interruptions due to water scarcity. Droughts significantly reduce water levels which may impact waterborne transport, restrict shipping capacity and disrupt production processes. In addition, the potential implementation of water usage quotas due to water shortages for drinking and other industries may further limit production capacity.	By leveraging WRI Aqueduct data on water stress and scarcity combined with SBTN's framework for setting science-based targets, Holcim continuously develops tailored strategies to enhance our resilience in each of our sites. We notably introduced mature water management systems focused on optimizing consumption through improved rainwater capture, water recycling, and retention basins, and aim to equip 100% of our sites with water recycling systems. For example, in Egypt, we have responded to risks associated with water scarcity by commissioning a desalination facility, enhancing our resilience and ensuring our commitment to sustainable water management.
Extreme temperatures Combination of atmospheric water capacity, change in extreme temperatures, and increase in the number of dry days. Key Risk Indicators	Extreme heat can impact our people's health (e.g. dehydration, heatstroke, etc.). In turn, it may decrease labor productivity both at our plants and construction sites, which could slow down production and delay transportation. Over time, extreme temperatures can weaken infrastructure and negatively impact the efficiency of our assets causing further operational disruptions and increased costs.	Holcim engages in adaptation solutions that we implemented in our businesses located in South Europe, US and Canada during the record-breaking temperatures in summer 2024. For example, we reorganized shifts to minimize heat stress, ensured sufficient water bottles reserves and provided employees with trainings and coping strategies for extreme heat. Although the risk of heatwaves is expected to increase in the future, Holcim has equipped its buildings and assets with cooling systems, which may reduce the risk.

CLIMATE AND NATURE PHYSICAL RISKS NATURE RISKS

Risk Description	Potential impact	Adaptation and resilience strategy
Water security The indicator used is Water Availability and is based on the "Baseline Water Stress" of WRI that measures the ratio of water withdrawals to available renewable surface and groundwater at the catchment scale. Key Risk Indicators	According to the ENCORE database, water security is a critical nature-related risk for the cement industry, as operations are highly dependent on sufficient water and freshwater supply and availability. Acute droughts can notably increase water scarcity, which may lead to business interruptions and financial losses. In addition, new regulations could lead to higher prices, restrictions or quotas on water which may limit production capacities and increase operational costs. Furthermore, the use of water in our operations in water-stress locations can strain relationships with local communities, potentially impacting Holcim's reputation.	Leveraging our annual risk assessment exercise, water security risk is regularly assessed at each manufacturing site using WRI Aqueduct and risk data from Swiss RE's RDS platform. The data and platform helps us identify high-risk locations, prioritize risk mitigations actions and design data-driven solutions. Water management plans have been implemented for locations at above medium-high water risk. This enables the operations to anticipate and adapt their business strategy to reduce freshwater withdrawal, engage with key local stakeholders, prepare for potentially more stringent regulations and new market conditions. Committed to a nature-positive future, Holcim aims to achieve a 33% reduction in freshwater withdrawal while making 75% of sites in water-risk areas water-positive by 2030. To achieve these goals, we are investing in projects aiming at reducing our dependence on freshwater through stewardship actions.

CLIMATE OPPORTUNITY ACCELERATING CIRCULARITY IN CONSTRUCTION

Description

Alongside reducing our CO_2 footprint, the circular economy represents an important lever to designing a business model that offers sustainable financial returns with reduced costs. In addition, preserving natural resources by reducing the extraction of new materials considerably decreases our dependence on mineral resources and preserves our long-term growth.

Our response

Holcim's commitment to circular economy is deeply embedded in our sustainability strategy, making circularity a driver of profitable growth. We leverage our robust analytical frameworks, including the Double Materiality Assessment and the Climate and Nature Risks and Opportunities Assessment, to identify circular economy impacts, risks and opportunities. This data-driven approach informs our action plan, which includes specific initiatives and investments to promote circularity across our operations and value chain.

Circular construction to build new from old is made possible at scale through recycling construction demolition materials (CDM) into new building solutions. We are driving circular construction with solutions to reduce, reuse and recycle materials and continuously monitor our progress and report transparently to stakeholders. We are scaling up Holcim's proprietary ECOCycle® technology platform to produce recycled construction aggregates and cement paste to be used to replace limestone in cement manufacturing, therefore helping to decarbonize.

This commitment to circularity extends to our portfolio of roofing solutions. As an example, a standard Malarkey residential roof upcycles at least 3,000 plastic bags into new shingles. Duro-Last roofing solutions also recycle manufacturing waste and roofs at the end of their life through the Recycle Your Roof program. In addition, we are continuously tracking the amount of our products that contain recycled materials and ensure that the majority of products are bulk shipped with no packaging.

CLIMATE OPPORTUNITY ACCESS TO COMPETITIVE DECARBONIZED ENERGY

Description

Shifting to decarbonized sources of energy is at the core of the Group's transformation towards a resilient, circular and sustainable business.

In the medium to long term, our operations decarbonize their energy usage while mitigating continuous pressure on prices and risks to energy security and supply. Access to competitive decarbonized energy will benefit our business encompassing resilience, self-sufficiency, stable energy prices and a contribution to our net-zero roadmap.

In the longer term, it is likely that the consumption of electricity will increase with the deployment of new technology for carbon capture and the electrification of industrial processes (e.g. kiln electrification), which makes the development of low-carbon energy sourcing all the more strategic and beneficial for the Group.

Our response

We work continuously to increase the portion of decarbonized energy in our operations with reliable, competitive and decarbonized power. All opportunities are investigated and addressed in order to achieve cost competitiveness as well as sustainable performance.

Our Group is applying a wide range of strategies which differ depending on the local context:

- Increase consumption of decarbonized power from long-term power purchase agreements (PPA) produced by either on-site or off-site assets.
- Bilateral clean power contracts directly with producers of decarbonized power to reduce dependency on market movements and have a more decarbonized footprint.
- Investment in renewable power projects and waste heat recovery systems using available space in our plants and quarries.

CLIMATE OPPORTUNITY DECARBONIZING THE BUILT ENVIRONMENT

Description

Climate change will create new challenges and opportunities for the construction sector. We will need more resilient infrastructures, rapid transformation into a circular economy due to scarcity of resources, and accelerated sustainable solutions such as energy efficiency for growing cities.

Addressing these challenges requires activating several levers, for which the construction and building material industry is a partner of choice. For Holcim, building represents a unique opportunity to contribute to the transition to a low-carbon and circular global economy, while accelerating the transition to highly energy-efficient cities.

Our response

We are decarbonizing buildings across their lifecycle to build a net-zero future that works for people and the planet. To do so, our large range of building solutions help cities curb greenhouse gas emissions by enabling a lower carbon footprint, higher energy efficiency and reduced material use. Our Solutions & Products segment offers solutions that help decarbonize cities with a range of roofing, insulation and retrofitting solutions both for new builds and existing building stock. As an example, our insulation systems offer advanced energy-efficiency benefits enabling Passive House buildings, such as the Winthrop Center in Boston, U.S. This includes Holcim's Elevate ISOGARD™ boards that provide thermal insulation, making buildings more energy-efficient and cost-effective in use.

Holcim is raising awareness among mayors and urban planners to evolve building norms and standards and specify smart and sustainable building solutions in public procurement. Our solution DYNAMax high-performance concrete is an example of how we seize those kinds of opportunities by deploying new building technologies to use minimum material for maximum strength. Usable space is optimized while superior rigidity enables the construction of longer-lasting buildings.

Developers and end users are increasingly setting their own rigorous net-zero targets. Holcim supports them by raising awareness of the role that construction materials can play in decarbonizing buildings, and the need to specify sustainable solutions in procurement, as well as evolving building norms and standards.

CLIMATE OPPORTUNITY INCREASING DEMAND FOR LOW-CARBON, CLIMATE-RESILIENT PRODUCTS & SOLUTIONS

Description	Our response
As the economy shifts to a decarbonized paradigm, endorsed by norms and regulations, and supported by a large number of stakeholders and customers, the market demand for low-carbon products will increase. Should Holcim's decarbonization keep pace with the market, it will offer a unique opportunity to deliver profitable growth and the business case for further decarbonization.	We accelerate the decarbonization of our operations together with the development of a complete offer aimed at meeting customers' product quality and decarbonization expectations. With the strength of global brands such as ECOPact and ECOPlanet, our Group is prepared to capitalize on the evolution of the market and increased demand for low-carbon products. As a global leader in innovative and sustainable building solutions, we engage with a wide range of stakeholders and partners to influence norms and regulations and contribute to decarbonize construction, fostering green demand and preparing our Group to capture over-proportional green growth. We closely monitor climate policies and incentives (such as the Buy Clean Initiative in the U.S.) and take advantage of our broad global customer base to target decarbonization first movers and those likely to move in the medium/long term.

NATURE RISK NATURE-RELATED POLICIES

Description	Potential impact	Our response
Any changes in government regulations, policies, or legal frameworks aimed at protecting biodiversity and natural resources which may potentially require Holcim to adjust its operations.	Regulatory bodies are increasingly strengthening policies that address nature issues. This will likely impact Holcim's operations, notably through greater raw material extraction and upstream transparency. This will also involve increased quarry rehabilitation and biodiversity management along with improved standards for water management. Compliance with these requirements will necessitate increased costs and investments in new technologies. If stricter regulations were to come into effect, Holcim could face potential operational disruptions stemming from higher mining fees, limited access and complex permitting processes required to access and extract raw materials and natural inputs. Any perceived deviation, such as the destruction of biodiversity or harm to protected species, or failure to adapt to evolving nature-related policies, could result in reputational and financial damages.	Holcim has a Water Directive along with a Quarry Rehabilitation and Biodiversity Directive, setting out the requirements to countries and sites to achieve our biodiversity and freshwater protection goals, particularly in areas that could be negatively impacted by our operations. We have notably identified potential negative impacts with regards to land degradation, and have rehabilitation plans in place that are mandatory when land is leased or bought by Holcim. To prioritize actions and develop tailored solutions to local challenges, we assess the biodiversity importance of each of our extraction sites and mitigate negative impacts. A Biodiversity Management Plan will be in place for all quarries that are considered to be located in areas of high biodiversity importance. Identification of the Biodiversity Importance Category of the quarry is performed according to the classification set out in the Holcim Biodiversity Management Plans and Karst Biodiversity Management. High biodiversity Importance areas are those classified with a Biodiversity Importance Category 1 and 2. Holcim also commits not to open new sites within protected areas declared under World Heritage, International Union for Conservation of Nature (IUCN) I and III. Furthermore, the compliance related to our water footprint is ensured by the implementation of Holcim's Nature Policy, Water Directive and Water Management Standard. To ensure responsible sourcing, we identify suppliers from extractive materials in each market where we operate and engage them to implement a Responsible Mining Program, to protect biodiversity and improve water management. Furthermore, we use SBTN to prioritize 100% of our purchases and to identify their impact based on pressure for nature and land use. Overall, Holcim prioritizes transparency and publicly discloses its environmental performance and progress against its nature targets annually.

NATURE RISK PRICE OF RAW MATERIALS AND NATURAL INPUTS

Description	Potential impact	Our response
Any fluctuations in raw materials and natural resources prices that directly impact Holcim's operational costs and overall profitability. These additional costs can be driven by increasing demand, increasing scarcity, and/or restrictions along with mining fees from stringent nature-related regulations	Increased costs for freshwater and essential raw materials directly impact production costs, potentially leading to a need for supply chain optimization and adjustments in pricing strategies that could result in higher prices for Holcim's products. Moreover, nature-related policies restricting supply of natural inputs (freshwater) and raw materials (limestone, gypsum, sand, gravel) essential to our operations could lead to operational costs and business interruption. Overall, increased prices coupled with additional fees for extraction, create a complex scenario where Holcim must navigate rising costs, potential supply shortages, and the risk of reduced consumer demand due to higher product prices.	Holcim actively monitors raw material prices and market trends to anticipate potential risks. In locations where the supply of raw materials is at risk, we haves a dedicated program focused on securing the best possible prices and ensuring a reliable supply of raw materials. In line with our nature-positive strategy, Holcim aims at reducing its dependence on nature. We are committed to continuous innovation in our materials and production processes. Our researchers at the Holcim Innovation Center in Lyon France and at our Technology Center in Switzerland continuously work on solutions to develop sustainable solutions to drive circular construction, with solutions to reduce, recycle and reuse materials and natural inputs.

NATURE RISK NEW PRODUCTION PROCESSES AND TECHNOLOGIES FOR RESOURCE SAVING AND EFFICIENCY

Description	Potential impact	Our response
Holcim's inability to be at the forefront of new production processes and technologies that might offer more sustainable or efficient ways to produce building materials could disrupt existing operations, create new competitive pressures and hinder our sustainability targets.	The market is demanding not only low-carbon but also nature-driven products and solutions. Failure to implement new production processes and technologies that would lower our impact on biodiversity and nature while increasing our operational efficiency could lead to a loss of market share and reputational damages. In the meantime, project management contingencies such as an inability to secure resources, inefficient technological knowledge and site limitations could delay our progress and lead to unexpected costs. Increasing pressure on freshwater availability and competition for valuable waste streams will only exacerbate these challenges, making investment in new production processes and technologies for resource saving and efficiency crucial to maintain our competitive edge and comply with new nature-related regulations.	Our researchers at the Holcim Innovation Center in Lyon, France and at our Technology Center in Switzerland are actively investing in research and development to explore and adopt new production processes and technologies - to preserve natural resources and biodiversity while improving operational efficiency. Our sites have already implemented production processes and technologies that reduce our dependence on virgin raw materials with, for example, the use of cement waste-derived materials, and natural resources with, for instance, investments in mature water management systems focused on optimizing consumption through improved rainwater capture, water recycling, and retention basins.

NATURE RISK REPUTATIONAL DAMAGE

Description	Potential impact	Our response
Potential negative perceptions from local communities, authorities, non-governmental organizations related to Holcim's dependencies on nature, as well as Holcim's actual or perceived impact on nature and/or impacts of activities upstream and/or downstream in a value chain, leading to damage on Holcim's brand image.	Negative publicity stemming from a lack of transparency or stakeholder engagement during mining projects and their development could erode public trust, damage the company's brand image, and ultimately impact its financial performance. This could also lead to reduced investor confidence, boycotts of Holcim products, community protests, and difficulty attracting and retaining talent.	Holcim conducts a continuous active engagement with relevant stakeholders from the planning phase of a mining project and throughout its development. This is fundamental to understand stakeholder needs and establish trust in developing the quarry rehabilitation, biodiversity management and water stewardship plans. This ongoing stakeholder engagement enables us to better understand stakeholder issues, address them and gain stakeholder trust. The Human Rights Directive is the reference document for planning and implementing stakeholder engagement activities. The key elements to make this viable are as follows: (1) Assess the level of stakeholder engagement that is required in order to develop and execute a Quarry Rehabilitation, Biodiversity Management and Water Stewardship Plan. (2) Relevant stakeholders must be identified according to local conditions and must be consulted in the planning process. (3) Not engaging with relevant local stakeholders is unacceptable. (4) Opportunities for developing strategic partnerships and engaging in a multi-stakeholder collaboration should be explored. (5) A communication plan must be put in place according to local needs and embedded in the overall communication strategy of the country.

NATURE RISK LIABILITY ARISING FROM LEGAL CLAIMS

Description	Potential impact	Our response
Legal actions taken against Holcim arising from local communities, authorities and non-governmental organizations, due to non-compliance with environmental regulations related to our activities' impacts and dependencies on nature and biodiversity, can lead to financial losses and reputational damage.	Legal claims represent a significant risk to our company, potentially affecting our commitment to responsible operations and our financial performance. Legal settlements and potential fines due to environmental damage or violations to nature-related policies can lead to financial losses. Moreover, ongoing legal proceedings and regulatory scrutiny can disrupt operations, resulting in project delays and increased operational costs. In addition, negative publicity stemming from legal claims can damage Holcim's brand reputation while undermining public trust, and adversely affect customer relationships.	We have already taken proactive steps to respond to evolving nature-related policies, as well as to protect and preserve biodiversity-sensitive areas that could be negatively affected by our activities. We are committed to transparency and accountability and openly communicate our environmental performance. Furthermore, we conduct proactive and active community engagement with relevant stakeholders and continuously address their potential concerns through the lifecycle of all our projects.

IDENTIFYING HOLCIM'S NATURE-RELATED IMPACTS AND DEPENDENCIES

In order to complement this bottom-up assessment, we leverage the latest technology for biodiversity and ecosystem mapping and anchor the nature risks and opportunities assessment as part of our climate and nature resilience and adaptation program, which also includes a detailed view of the nature-related impacts and dependencies of our operations.

Holcim's nature-related impacts and dependencies are assessed using the tool Exploring Natural Capital Opportunities, Risks and Exposure (ENCORE) and the SBTN Materiality screening tool to identify the impacts. Water use, land use including biodiversity, solid waste and greenhouse gas emissions have been identified as our most material nature-related impacts and dependencies.

Furthermore, the company uses the Integrated Biodiversity Assessment Tool (IBAT) to assess all extractive sites (within a five-kilometer buffer), identify priority locations with high biodiversity importance and help prioritize actions in these areas. All of the company's extractive sites are required to assess their importance in relation to biodiversity through an internal evaluation methodology, the Biodiversity Importance Category (BIC).

The IUCN-partnered methodology, Biodiversity Indicator and Reporting System (BIRS), assesses site-level biodiversity impacts, determines how habitats and ecosystems are affected, evaluates mitigation and rehabilitation measures and guides measurement and reporting of management activities. The BIRS biodiversity baselines for all managed land were established in 2024 and Holcim will use the same method to confirm the company's positive biodiversity impact by 2030.

Finally, Holcim validates all gathered information through stakeholder consultations, collecting quantitative inputs from almost 400 stakeholders, both internal and external, to define all material priorities (including environmental ones) for the company. It complements this quantitative analysis with stakeholder interviews to obtain a deeper qualitative understanding of their views.

Holcim's confirmed nature-related impacts and dependencies are then considered in the overall Enterprise Risk Management (ERM) process and integrated into the company strategy.

NATURE OPPORTUNITY OPERATIONAL EFFICIENCY AND REDUCED DEPENDENCE ON NATURAL RESOURCES

Description	Our response
Any action toward greater resource efficiency (processes requiring fewer natural resources, substitution of natural resources by recycled, regenerative, renewable and/or ethically responsibly sourced organic inputs) has multiple benefits. For example, by using less natural resources such as freshwater we can also reduce costs and/or improve operational efficiency. This may result in a reduction in operational costs and enhanced profitability, while protecting our reputation.	Holcim's commitment to reduce its nature impact involves numerous initiatives related to resource efficiency. Using our ECOCycle® circular technology, we have implemented circular solutions that allow us to reduce our dependence on raw materials and build new from old, using recycled materials in solutions that incorporate recycled construction demolition materials. Moreover, Holcim aims to reduce freshwater withdrawals with measurable targets by 2030 in its most material business segments, i.e. cement, aggregates, and ready-mix.. Holcim also implements energy efficiency projects to reduce fuel consumption and emissions by promoting the use of alternative fuels and resources, including biomass, waste-derived fuels and recycled materials.

NATURE OPPORTUNITY GROWING DEMAND FOR BIODIVERSITY AND NATURE-DRIVEN PRODUCTS AND SOLUTIONS

Description	Our response
Changing market dynamics include changes in consumer preferences. Any current and anticipated opportunities arising from, for example, consumers asking for more sustainable products with benefits in addition to low CO_2, such as cement with a lesser impact on biodiversity (quarry management), concrete using less freshwater, aggregates positively impacting biodiversity, have the potential to increase our market share in such product ranges. Hence we would benefit from a premium and create added value for the customer and the society.	Holcim is actively expanding its portfolio to meet the growing demand for products and solutions with less impact on biodiversity and nature through circularity initiatives that reduce our use of primary raw materials and natural resources. Holcim is also committed to rehabilitating its quarries to restore biodiversity and create valuable green spaces.

NATURE OPPORTUNITY REPUTATIONAL CAPITAL

Description	Our response
Activities that support the protection, regeneration or restoration of habitats and ecosystems, including areas both within and outside the organization's direct control, drive positive changes in perception around Holcim's nature impacts. Protection, regeneration or restoration of areas with high biodiversity value could increase revenue due to improved reputation as well as increase market valuation through resilience planning. Changes in Holcim's brand value due to the reputational impact of nature-related issues could positively affect our relationships with communities, regulatory bodies and employees/potential employees.	Holcim publishes a detailed Climate Report and provides transparent information on our nature-related impacts and progress toward our nature-positive goals. This includes detailed information on our biodiversity conservation, water management and land restoration efforts. Holcim's development of products and solutions based on processes aimed at resource savings and efficiency demonstrates our commitment to creating positive impact and contributing to a more sustainable built environment.

SCENARIO ANALYSIS

Holcim has developed two distinct and plausible climate change scenarios, including one aligned with the Paris Agreement, to test the resilience of the organization's strategy in light of different climate change futures.

In line with the Task Force on Climate-related Financial Disclosures (TCFD) recommendations, Holcim has continued to develop distinct and plausible climate change scenarios to test the resilience of the organization's strategy in light of different climate change futures. Two scenarios were considered to present Holcim's assessment of climate-related transitional and physical risks. A "Paris Agreement-aligned" scenario (aligned with 1.5°C) and an "Ineffective Collective Action Against Climate Change" scenario (aligned with 3–5°C).

The Paris Agreement-aligned scenario is favorable for Holcim, its shareholders and the global community. New market conditions will support growing demand for low-carbon products and solutions, increasing our market share in low-carbon cement and concrete as well as solutions to reduce the emissions of the built environment. Holcim's sustainability leadership brings strategic resilience to the Group, and Holcim is well positioned to build on its net-zero journey and help create a net-zero future that works for people and the planet.

A slower pace of transformation will lead to an "Ineffective Collective Action Against Climate Change" scenario, as the construction value chain continues to be fragmented and stimuli are not yet in place to decarbonize at the pace and scale required. While this is not Holcim's strategic direction, the Group will adapt to cover the market needs while continuing to drive circular and low-carbon construction and invest in less carbon-intensive production technologies.

In all cases, Holcim is well positioned for the future, with its leadership in ready-mix concrete and the expansion of its Solutions & Products segment. Concrete is versatile, affordable, insulating and infinitely recyclable. In addition, it is resilient, durable, fire and earthquake resistant, protecting our cities and infrastructure from natural disasters. For all these reasons, concrete is a must for climate change adaptation and there is currently no viable substitute at scale.

At the same time, Solutions & Products' technologies and innovations deliver sustainable and energy-efficient solutions for the built environment. These will be crucial in the coming decades, regardless of the climate change scenario.

This chapter aims to summarize the outcome of Holcim's climate-related scenario analysis. Holcim will continue to develop its climate scenarios analysis to understand emerging opportunities and mitigate potential risks associated with climate change.

Holcim considers the impact of each climate change scenario on our ambition to become a net-zero company by 2050 as well as a leader in sustainable and innovative construction materials and solutions, delivering profitable growth in a low-carbon economy. Depending on the particular risk or opportunity, our analysis is based on both quantitative and qualitative assessments. These scenarios do not constitute definitive outcomes for Holcim. The scenario analysis exercise relies on assumptions that may or may not materialize, and scenarios may be impacted by additional factors to the assumptions disclosed.

PARIS AGREEMENT-ALIGNED SCENARIO

In the Paris Agreement-aligned scenario, governments and industries are aligned to make carbon neutrality possible. The cement industry is making significant efforts toward net-zero development and innovation, while climate change mitigation and adaptation are growing in importance. Carbon capture, utilization and storage technologies are developing at a pace consistent with the industry's transition to net zero. Demand for low-carbon and material-efficient solutions, solutions that reduce the emissions of the built environment, and those that mitigate the impacts of climate change, is accelerating. Physical impacts of climate change are manageable without significant business or societal disruption. Holcim's sustainability leadership brings strategic resilience to the company. Holcim is well positioned to advance on its net-zero journey and build a net-zero future that works for people and the planet.

INEFFECTIVE COLLECTIVE ACTION AGAINST CLIMATE CHANGE SCENARIO

Ineffective collective action against climate change creates a misalignment between our efforts to reach net-zero emissions and the applicable regulations, resulting in a competitive disadvantage that a zero-carbon strategy imposes on our company in relation to other companies and sectors. Limited benefits would be drawn from the development of low-carbon and material and energy-efficient solutions. Physical impacts of climate change are severe, including water stress and extreme weather events. Holcim develops a strong response strategy to protect its assets and adapt to new market demand characteristics.

	PARIS AGREEMENT-ALIGNED SCENARIO	INEFFECTIVE COLLECTIVE ACTION AGAINST CLIMATE CHANGE
Temperature range by 2100	1.5°C	3°C – 5°C
Reference scenarios	IEA net-zero Emissions Scenario (NZE) Source: IEA World Energy Outlook 2024	IEA Stated Policies Scenario (STEPS) Source: IEA World Energy Outlook 2024 IEA Reference Technology Scenario (RTS) Source: IEA Technology Roadmap – Low-Carbon Transition in the Cement Industry (2019)
Carbon Emissions Pathway, IPCC 6th Assessment Report Used for physical risk assessment	Carbon Emissions Pathway: SSP1-2.6	Carbon Emissions Pathway: SSP5-8.5
Cement demand	Trend following NZE: Growth in emerging markets until 2030. From 2030–2050 demand decreases due to smart design	Trend following RTS until 2030: Growth in emerging markets until 2030. Marginal growth after 2030
CO_2 price (USD/T CO_2)	NZE: Advanced economies with net zero pledges: 2030: 140, 2050: 250 Selected emerging markets with net zero pledges: 2030: 90, 2050: 200 Selected emerging markets: 2030: 25, 2050: 180 Other emerging markets: 2030: 15, 2050: 55	STEPS: EU: 2030: 140; 2050: 158 Canada: 2030: 126; 2050: 126 Other selected markets: 2030: 21–56, 2050: 28–89

SCENARIO ANALYSIS

SCENARIO IMPACTS

Risk to be continuously monitored by Holcim and risk governance adjusted accordingly to limit negative business impact.

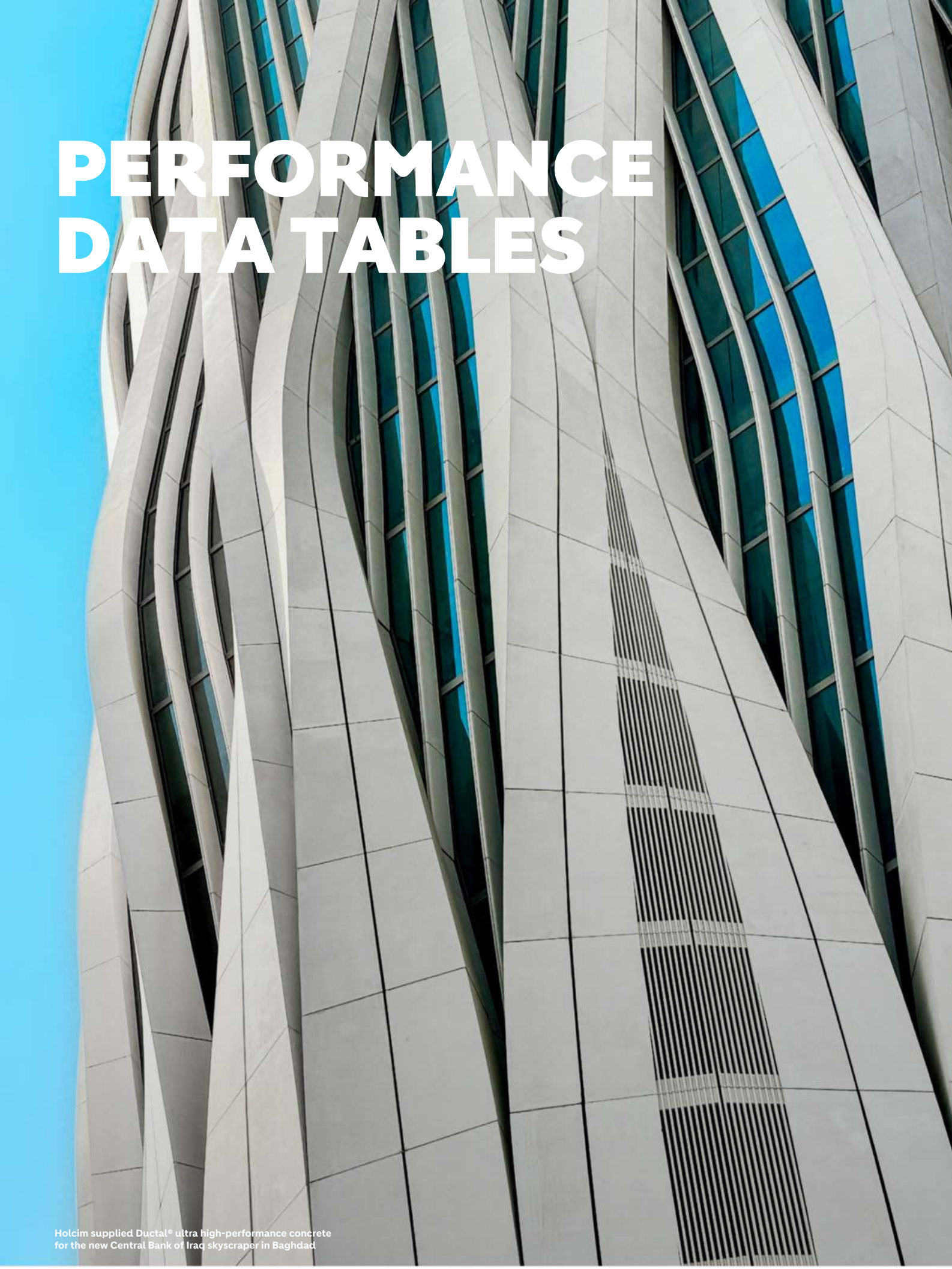
Opportunity improving the conditions for delivery of our strategy and with a positive business impact.

IMPACT LOW
IMPACT MEDIUM
IMPACT HIGH

		PARIS AGREEMENT-ALIGNED SCENARIO		INEFFECTIVE COLLECTIVE ACTION	
		RISKS	OPPORTUNITIES	RISKS	OPPORTUNITIES
1. POLICY AND LEGAL					
1.1 CO_2 prices and other climate policies	2030				
	2050				
2. MARKET					
2.1 Access to mineral components	2030				
	2050				
2.2 Cost of fossil fuels/energy	2030				
	2050				
2.3 Circular construction (recycling materials, smart design and driving repair and renovation)	2030				
	2050				
2.4 Demand for low-carbon building materials	2030				
	2050				
3. TECHNOLOGY					
3.1 Decarbonization of supply chain (energy and transportation)	2030				
	2050				
3.2 Deployment of breakthrough technologies on a large scale	2030				
	2050				
4. REPUTATION					
4.1 Impact on Group's stakeholders	2030				
	2050				
5. PHYSICAL					
5.1 Chronic – higher average temperatures and sea level rise	2030				
	2050				
5.2 Acute – extreme events (flooding and heat)	2030				
	2050				

	PARIS AGREEMENT-ALIGNED SCENARIO	INEFFECTIVE COLLECTIVE ACTION AGAINST CLIMATE CHANGE SCENARIO
1. POLICY AND LEGAL	Consistent with our net-zero strategy, reliable and stable carbon prices in all regions facilitates long-term investment decisions in low-carbon technologies and encourages significant changes across the building material and construction value chain. It will also support the collective effort to create a CO_2 transportation and storage network at large scale, in line with the needs of other industries.	The limited number of CO_2 pricing schemes hampers deployment of breakthrough technologies at the pace needed, making it more challenging for Holcim to deliver on its net-zero target. Also, with fragmented decarbonization efforts in the construction value chain, it is more difficult to benefit from the competitive advantage offered by a low-carbon footprint.
2. MARKET	While decarbonization of the construction value chain progresses, focus is on reducing operational emissions in the built environment, and circular construction is progressively endorsed by norms and regulations globally. This results in higher demand for low-carbon and circular building materials, and for our Solutions & Products segment. Simultaneously, as the steel and energy industries decarbonize, the availability of supplementary materials such as fly ash or slag decreases. Holcim mitigates this risk by securing sources of limestone, construction demolition materials or byproducts from other industries, but also by investing in calcined clay facilities and developing novel cements with new binders. With the progressive transition to decarbonized energy sources, Holcim's dependency on fossil fuel decreases.	As there are few regulatory incentives to use low-carbon products and to recycle, there is a limited increase in sales of our low-carbon cement and concrete. Demand for our circular materials and our products and solutions will be driven by urbanization, the need to protect natural resources and increased fossil fuel prices. By 2030, while the average clinker factor reduces moderately, the availability and cost of mineral components will remain virtually unchanged compared with today's levels. By 2050, the price of these materials modestly increases as some decarbonization of industries is underway, leading to a limited negative impact. However, with the slower transition to decarbonized energy sources, demand for fossil fuels remains strong.
3. TECHNOLOGY	Holcim will benefit from the overall decarbonization efforts in society thanks to: (1) Earlier readiness and affordability of breakthrough technologies, such as kiln electrification, hydrogen and – most importantly – CCUS. (2) Efforts in our own value chain/with suppliers, which will reduce our Scope 3 emissions. Additionally, we expect the production of supplementary cementitious material such as calcined clay to mature.	Holcim will need to make significant additional efforts to reach its Scope 1 targets, as governments are slow to implement the necessary policies to scale up breakthrough technologies, such as kiln electrification, hydrogen and CCUS and the associated networks and infrastructure. Scope 3 targets are challenged, as suppliers do not decarbonize at the necessary pace.
4. REPUTATION	In the short term, Holcim's cement production segment remains in the spotlight as a CO_2-intensive business, bringing reputational risks. However, as the net-zero roadmap is delivered and Holcim is seen as a keen contributor to climate change mitigation, its reputation, trust and credibility grow and the strategy is aligned with stakeholders' expectations.	The slow pace of the required regulatory incentives will pose additional challenges for Holcim's decarbonization journey, progressively increasing associated reputational risks.
5. PHYSICAL	Extreme precipitation and flooding impacting sites and supply chains in affected areas will require further protective measures and mitigation plans. Today, 26% of our sites are located in areas with medium to extremely high water stress, which explains why appropriate governance and management in water consumption, recycling and treatment are already required.	Extreme weather events such as torrential precipitation, flooding, drought and excessive heat days will increase significantly in frequency and intensity. In the long term, these may be considerably more intense, and mean that protection measures at existing locations are insufficient. This could have severe financial impacts on sites and supply chains and could potentially jeopardize the economic viability of some of our operations. Further risks, such as wildfire and windstorms, will increase and become significant threats. An opportunity is presented by the development of our Solutions & Products business segment, which offers integrated solutions and systems specifically designed to tackle climate change challenges -by increasing energy efficiency, providing cooling effects, extending the longevity of building materials and enhancing options to generate renewable energy.

PERFORMANCE DATA TABLES



Holcim supplied Ductal® ultra high-performance concrete for the new Central Bank of Iraq skyscraper in Baghdad

PERFORMANCE AGAINST TARGETS

Unit key

NR – Not reported	Mt – million tons	Mm^3 – million cubic meters
$kgCO_2/t$ – kilograms of carbon dioxide per ton	ton – metric ton	L/t – liters per ton
M GJ – million gigajoules	g – grams	L/m^3 – liters per cubic meter
MJ/t – million joules per ton	g/t – grams per ton	ha – hectares
CHF – Swiss francs	mg/t – milligrams per ton	km – kilometers
CHFm – million Swiss francs	# – number	% – percentage

	Unit	Base Year	Baseline	2023 Performance	2024 Performance	2024 vs. 2023	2030 Target	Achieved to Date
Specific CO_2 emissions – Net (Scope 1) – cement only[1]	$kgCO_2/t$	2018	590	549	538	-2%	420	-9%
Specific CO_2 emissions – Gross (Scope 1) – cement only[1]	$kgCO_2/t$	2018	623	591	582	-2%	-23 %	-7%
CO_2 emissions – electricity (Scope 2) – cement only[1]	$kgCO_2/t$	2018	46	35	32	-8%	-65 %	-30%
CO_2 indirect emissions from purchased fuels (Scope 3)[1]	$kgCO_2e/t$ purchased	2020	286	285	285	–	-20 %	–
CO_2 indirect emissions from purchased clinker and cement (Scope 3)[1]	$kgCO_2e/t$ purchased	2020	710	709	705	-1%	-25 %	-1%
CO_2 indirect emissions from downstream transportation (Scope 3)[1]	$kgCO_2e/t$ transported	2020	11	9	9	3%	-24 %	-19%
Cement Specific freshwater withdrawal[1]	L/t	2018	377	301	277	-8%	-33 %	-27%
Aggregates Specific freshwater withdrawal	L/t	2018	225	192	184	-4%	-20 %	-18%
Ready-mix Specific freshwater withdrawal	L/m^3	2018	212	206	200	-3%	-15 %	-6%
Waste derived resources – all segments[1]	Mt	2018	n/a	35	38	8%	70	55%
Construction demolition materials (CDM)	Mt	2020	6.6	8.4	10.2	20%	20	54%
Recycling ratio – Cement (waste used / production volumes)[1]	%	2020	22	21	22	5%	30	1%
High ESG impact suppliers qualified (% spend)	%	2017	n/a	93	88	-5%	100 %	88%
Specific dust emissions	g/t	2018	121	64	38	-40%	75	-68%
Specific NO_x emissions	g/t	2016	1,513	1,189	1,154	-3%	1,100	-24%
Specific SO_2 emissions	g/t	2016	357	230	235	2%	230	-34%
Cumulative contribution to create positive social impact	CHFm	2021	n/a	91	115	27%	350	33%

[1] 2023 data is restated as per 2024 Consolidation.

PERFORMANCE DATA TABLES

ENVIRONMENT

ENERGY[1]	Unit	2022	2023	**2024**
Total energy consumption	M GJ	435	425	419
Total energy consumption from fossil sources	M GJ	389	375	367
Total energy consumption from renewable sources	M GJ	47	50	52
Thermal energy consumption	M GJ	370	361	356
Thermal energy consumption fossil fuels – coal	M GJ	67	51	47
Thermal energy consumption fossil fuels – petcoke	M GJ	78	79	76
Thermal energy consumption fossil fuels – oil	M GJ	29	29	26
Thermal energy consumption fossil fuels – gas	M GJ	94	98	99
Thermal energy consumption fossil fuels – other traditional fossil fuels	M GJ	8	7	6
Thermal energy mix of clinker production – alternative fuels (ex biomass)	M GJ	60	61	63
Thermal energy mix of clinker production – biomass	M GJ	33	37	39
Electrical energy consumption	M GJ	65	64	63
Electrical energy consumption – renewable	M GJ	13	14	13
Electrical energy consumption – own generation – renewable	M GJ	1	1	1
Electrical energy consumption – renewable PPAs	M GJ	3	3	3
Electrical energy consumption – other renewable (grid)	M GJ	9	9	9
Electrical energy consumption – non-renewable	M GJ	52	50	49
Electrical energy consumption – own generation – non-renewable	M GJ	3	3	3
Electrical energy consumption – grid – non-renewable	M GJ	49	47	46

[1] 2022 and 2023 data is restated in line with 2024 Consolidation.

ENVIRONMENT

ABSOLUTE GHG EMISSIONS[1]

	Unit	2022	2023	2024
Absolute Scope 1 emissions – gross	Mt	77	74	**71**
Percentage of Scope 1 GHG emissions from regulated emission trading schemes	%	29	28	**29**
Absolute Scope 2 emissions (market-based)	Mt	4	5	**4**
Percentage of electricity purchased with usage of bundled renewable energy attributes	%	NR	NR	**7**
Percentage of electricity purchased with usage of unbundled renewable energy attributes	%	NR	NR	**6**
Absolute Scope 3 emissions – total	Mt	48	46	**42**
Percentage of GHG Scope 3 calculated using primary data	%	49	51	**48**
Absolute S3 emissions – Cat 1 – Purchased goods and services	Mt	9.5	7.5	**7.3**
Absolute S3 emissions – Cat 2 – Capital goods	Mt	0.1	0.2	**0.1**
Absolute S3 emissions – Cat 3 – Fuel and energy-related activities	Mt	5.5	5.3	**5.1**
Absolute S3 emissions – Cat 4 – Upstream transportation and distribution	Mt	4.7	4.3	**4.2**
Absolute S3 emissions – Cat 5 – Waste generated in operations	Mt	0.1	0.1	**0.1**
Absolute S3 emissions – Cat 6 – Business travel	Mt	0.0	0.0	**0.0**
Absolute S3 emissions – Cat 7 – Employee commuting	Mt	0.1	0.1	**0.1**
Absolute S3 emissions – Cat 8 – Upstream leased assets[2]	Mt	0.0	0.0	**0.0**
Absolute S3 emissions – Cat 9 – Downstream transportation and distribution	Mt	2.5	2.2	**2.2**
Absolute S3 emissions – Cat 10 – Processing of sold products	Mt	1.5	1.8	**1.6**
Absolute S3 emissions – Cat 11 – Use of sold products	Mt	0.0	0.0	**0.0**
Absolute S3 emissions – Cat 12 – End-of-life treatment of sold products	Mt	1.0	1.4	**1.3**
Absolute S3 emissions – Cat 13 – Downstream leased assets	Mt	0.0	0.0	**0.0**
Absolute S3 emissions – Cat 14 – Franchises	Mt	0.0	0.0	**0.0**
Absolute S3 emissions – Cat 15 – Investments	Mt	22.5	23.1	**19.6**
Absolute emissions (Scope 1, 2 & 3)	Mt	125	124	**117**

ABSOLUTE SCOPE 1 EMISSIONS BY SOURCE[1]

	Unit	2022	2023	2024
CO_2 emissions – Gross (Scope 1)	Mt	77	74	**71**
CO_2 emissions from raw materials	Mt	50	48	**47**
CO_2 emissions from fossil fuels	Mt	22	20	**19**
CO_2 emissions from alternative fuels (non-biomass)	Mt	5	5	**5**
CO_2 emissions from alternative fuels (biomass)	Mt	3	3	**4**

ABSOLUTE SCOPE 1 EMISSIONS BY REGION[1]

	Unit	2022	2023	2024
CO_2 emissions – Gross (Scope 1) – Asia, Middle East & Africa	Mt	28	27	**26**
CO_2 emissions – Gross (Scope 1) – Europe	Mt	22	20	**20**
CO_2 emissions – Gross (Scope 1) – LATAM	Mt	11	11	**10**
CO_2 emissions – Gross (Scope 1) – North America	Mt	16	16	**15**

SPECIFIC SCOPE 3 EMISSIONS[1]

	Unit	2022	2023	2024
CO_2 indirect emissions from purchased fuels	$kgCO_2e$/t purchased	287	285	**285**
CO_2 indirect emissions from purchased clinker and cement	$kgCO_2e$/t purchased	716	709	**705**
CO_2 indirect emissions from downstream transportation	$kgCO_2e$/t transported	10	9	**9**

[1] 2022 and 2023 data is restated in line with 2024 consolidation.
[2] As per latest SBTi Guidelines, emissions from leased vehicles were reclassified as Scope 1 and leased spaces as Scope 2.

ENVIRONMENT

ENERGY & GHG (GCCA KPIs) – CEMENT PLANTS ONLY	Unit	2022	2023	**2024**
Absolute Net Scope 1	Mt	71	67	**65**
Absolute Gross[3] Scope 1	Mt	76	72	**70**
Absolute Scope 2 – Market-based	Mt	4	4	**4**
Absolute Scope 2 – Location-based	Mt	4	4	**4**
Specific CO_2 emissions – Net[4] (Scope 1) – as reported	$kgCO_2/t$	562	545	**538**
Specific CO_2 emissions – Net (Scope 1) – 2024 consolidation	$kgCO_2/t$	567	549	**538**
Specific CO_2 emissions – Gross[3] (Scope 1) – as reported	$kgCO_2/t$	602	587	**582**
Specific CO_2 emissions – Gross (Scope 1) – 2024 consolidation	$kgCO_2/t$	607	591	**582**
Specific CO_2 emissions – Electricity (Scope 2) – market-based – as reported	$kgCO_2/t$	37	36	**32**
Specific CO_2 emissions – Electricity (Scope 2) – market-based – 2024 consolidation	$kgCO_2/t$	35	35	**32**
Specific heat consumption of clinker production – as reported	MJ/t	3,654	3,664	**3,702**
Specific heat consumption of clinker production – 2024 consolidation	MJ/t	3,647	3,663	**3,702**
Thermal Substitution Rate (TSR): alternative fuels plus biomass – as reported	%	28	30	**32**
Thermal Substitution Rate (TSR): alternative fuels plus biomass – 2024 consolidation	%	28	30	**32**
Thermal Substitution Rate (TSR): biomass – as reported	%	10	11	**12**
Thermal Substitution Rate (TSR): biomass – 2024 consolidation	%	10	11	**12**

The newly renovated Norblin Factory in Warsaw, Poland, uses Hydromedia concrete – creating an ecological and effective drainage substructure

About this document
Holcim's 2024 Climate Report is fully integrated in the *2024 Integrated Annual Report*, based on Holcim's commitment to transparency and environmental responsibility

ABOUT HOLCIM

Holcim is a global leader in innovative and sustainable building solutions with net sales of CHF 26.4 billion in 2024. Our 65,000 employees are driven by our purpose to build progress for people and the planet across our regions to improve living standards for all. We partner with our customers to offer the broadest range of advanced solutions, from sustainable building materials ECOPact and ECOPlanet, to our circularity technology ECOCycle®, all the way to Elevate's advanced roofing and insulation systems.

For more information visit:
holcim.com

INTEGRATED REPORTING

This Climate Report is also integrated within Holcim's *2024 Integrated Annual Report*, which shows how we manage the company sustainably, as well as the financial and nonfinancial value we created in 2024.

PHOTO CREDITS

Cover: Rachapant Sukrattanachaikul
Inside Cover: Michael Haywood, Coldsnowstorm, Philippe Piraux
Page 1: Orbon Alija
Page 4: Michael Haywood
Page 32: Coldsnowstorm
Page 36: polaRYSE
Page 37: Mark Lloyd / Vendée Globe
Page 39: Bjarke Ingels Group
Page 40: Holcim Foundation for Sustainable Construction
Page 42: Philippe Piraux
Page 46: rrreefs
Page 48: Chris Griffiths
Page 56: Ben Bisek / Wilkinson Eyre
Page 59: Alpentherme Gastein / Fotoatelier Wolkersdorfer
Page 84: Zaha Hadid Architects
Page 89: Adam Smigielski

IMPRINT

Concept/Design/Realization:
Created with Workiva platform
Linkgroup AG, Zurich/CH
linkgroup.ch

TCFD TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

For TCFD-guided disclosures see page 216 of the complete *2024 Integrated Annual Report*.

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

In 2022, the SBTi validated Holcim's 2030 targets as aligned with a 1.5°C scenario.

Holcim Ltd
Grafenauweg 10
6300 Zug
Switzerland

holcim.com