

2023 REPORT ON NON-FINANCIAL MATTERS



DISCLOSURES FOR SWISS CODE OF OBLIGATIONS (ART. 964B)

The following sections comprise the report on non-financial matters in accordance with Art. 964b of the Swiss Code of Obligations.

Sustainability is at the core of Holcim's business and is deeply embedded in its corporate strategy. Recognizing that sustainability cannot be viewed separately from our broader business activities, Holcim adopts an integrated approach for the report on non-financial matters pursuant to Art. 964b of the Swiss Code of Obligations. Through the integration of sustainability topics alongside other relevant topics covered in the Integrated Annual Report, we aim to provide our shareholders and other stakeholders with a comprehensive view of our business activities.



Cover Image:

The Generali Tower in Milan is part of CityLife – one of the most important urban redevelopment projects in Europe. Iconic skyscrapers set in a new park, a brand new shopping district, and a new metro line have all been built with Holcim products



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LEADING IN ESG DISCLOSURES & TRANSPARENCY

Read more about our transparent ESG disclosures in the *2023 Integrated Annual Report*.

☞ Art. 964b Swiss Code of Obligations. Read on page 434

☞ EU Taxonomy. Read on page 266

☞ TCFD. Read on page 238

☞ TNFD. Read on page 238

DESCRIPTION OF THE BUSINESS MODEL

ART. 946B CONTENT REQUIREMENT

4 Delivering record results

DELIVERING RECORD RESULTS

We achieved our Strategy 2025 financial targets ahead of plan. By accelerating growth, expanding Solutions & Products and leading in sustainability and innovation, we are transforming and delivering superior performance.

Washington, D.C. is the world's first LEED® Platinum city with the full spectrum of Holcim's sustainable building solutions inside



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ACHIEVING STRATEGY 2025

Delivering record results

When Holcim launched “Strategy 2025 – Accelerating Green Growth” in 2021, our aim was to transform the company to become the global leader in innovative and sustainable building solutions. Today, we are achieving our financial targets two years ahead of plan.

We have moved our business from volume to value, and successfully shifted to the most attractive markets, as well as segments with strong growth drivers and high margins, such as North America.

At the same time, we have invested in innovation to develop low-carbon, circular and energy-efficient building solutions and grow our leading brands.

Throughout this journey, we have put sustainability at the core of our business, rethinking our operations from end-to-end and positioning ourselves as a first mover on net zero, circularity and nature.

The result is record performance. Holcim has delivered strong net sales and Recurring EBIT growth, while focusing on high value creation. The value we have created benefits all of our stakeholders – investors and customers, our people, communities and the planet.

[Learn more on our website](#)

“In 2023, we delivered on our strategy, and shifted to the most attractive markets.”

JAN JENISCH
Chairman & CEO

ACHIEVING STRATEGY 2025

In 2023, Holcim achieved the financial targets of “Strategy 2025 – Accelerating Green Growth” two years ahead of plan.

STRATEGY 2025

NET SALES GROWTH

3–5% **ORGANIC P.A.**

RECURRING EBIT GROWTH

**OVER-PROPORTIONAL
TO NET SALES
GROWTH ANNUALLY**

**ACCELERATE GROWTH
IN SOLUTIONS & PRODUCTS**

30% **OF GROUP
NET SALES**

CASH CONVERSION

45%

ROIC

10%

**NET FINANCIAL DEBT
TO EBITDA**

<1.5×


“Holcim’s new level of financial performance is driven by its superior earnings profile, which is based on industry-leading margins and a strong balance sheet, to deliver attractive shareholder returns.”


JAN JENISCH
Chairman & CEO

2023 RESULTS


+6.1% ORGANIC 

+14.7% ORGANIC 

21% 

58% 

10.6% 

1.2x 

**ACHIEVING
STRATEGY 2025
FINANCIAL
TARGETS TWO
YEARS AHEAD
OF PLAN**

ACHIEVING STRATEGY 2025 FINANCIAL TARGETS TWO YEARS AHEAD OF PLAN



ACCELERATING GROWTH

STRATEGIC AIM

Holcim is capitalizing on megatrends and specific regional growth drivers to achieve profitable above-market growth. By investing in innovative and sustainable building solutions, we offer high-value benefits to our customers, helping to address their sustainability challenges.

2023 Highlights

- Record Recurring EBIT of CHF 4.8 billion driven by low-carbon products
- 28 acquisitions in high-value markets
- Rebalanced portfolio with mature markets¹ representing 78 percent of net sales

2023 Related KPIs

- +6.1 percent organic net sales growth
- +14.7 percent organic growth in Recurring EBIT
- 17.6 percent Recurring EBIT margin
- 58 percent cash conversion

2023 PROGRESS

Holcim continued to drive growth through acquisitions, investing in innovation and sharpening our portfolio towards high-value end markets and attractive regions.

We acquired 28 businesses: 17 bolt-on acquisitions in cement, aggregates and ready-mix, and 11 acquisitions in Solutions & Products. Leveraging regional growth drivers in 2023, we enhanced value creation and saw strong performance across all regions.

In the North America region, increased demand led to record net sales of CHF 6.7 billion and profitability of 21.7 percent Recurring EBIT margin.

A strong increase in profitability in Europe (15.8 percent Recurring EBIT margin), was driven by decarbonization.

Latin America saw continued profitable growth with 15.4 percent organic growth in Recurring EBIT due to near-shoring and infrastructure projects. In Asia, Middle East and Africa, organic growth of 5.8 percent net sales was broad based, despite softness in China.

2024 PRIORITIES

- Invest in decarbonization and circular construction to drive profitable growth in Europe
- Pursue further value-accretive acquisitions
- Continue our expansion in the attractive North American market
- Accelerate growth in advanced roofing and insulation systems
- Maintain focus on deal execution and value for shareholders, including profitable growth and shareholder returns

Read how we are Growing in the Most Attractive Markets on page 34 in the [2023 Integrated Annual Report](#)



Holcim contributed to the Arlington Memorial Bridge's first rehabilitation since its opening in 1932 – one of the largest infrastructure projects in the U.S. National Park Service's history

¹ Mature markets comprise North America, Europe and Oceania (Australia & New Zealand)



EXPANDING SOLUTIONS & PRODUCTS

STRATEGIC AIM

Holcim aims to capture the high profitability and attractive growth potential offered by our advanced roofing and insulation systems, which are benefiting from strong underlying demand, favorable government incentives and resilient demand from the repair and refurbishment market.

2023 Highlights

- Acquisition of roofing brand Duro-Last in North America
- Six acquisitions in Europe in roofing, precast and Specialty Building Products
- Four acquisitions in Latin America in roofing and Specialty Building Products

2023 Related KPIs

- CHF 5.6 billion net sales
- 21 percent of Group net sales
- 80 percent of sales from advanced system selling in commercial roofing

2023 PROGRESS

We continued to expand Solutions & Products, becoming a global leader in advanced roofing and insulation systems.

Roofing acquisitions included Duro-Last advanced roofing systems in North America.

In Latin America, we acquired Indar and PASA in Mexico, Quimexur in Argentina and Minerales y Agregados in Guatemala.

In Europe, Holcim acquired FDT Flachdach Technologie and Cooper Standard Technical Rubber in Germany, HM Factory in Poland,

Besblock and Eco-Readymix in the UK and Artepref in Spain.

Net sales growth in Solutions & Products for the full year was 8.6 percent lower on an organic basis. Despite a strong underlying market demand, growth was dampened due to customers building up roofing inventory during the first half of 2022, followed by a severe destocking starting in the fourth quarter of 2022 and ending mid-year of 2023. With destocking now complete, we returned to a positive net sales growth in the fourth quarter of 2023.

2024 PRIORITIES

- Pursue value-accretive acquisitions, expand into other regions
- Continue to invest in acquired businesses to further strengthen margins
- Increase production capacity to take advantage of market growth
- Drive system selling – from full roof design and insulation to installation

Read more about Solutions & Products on page 44 in the [2023 Integrated Annual Report](#)



Our roofing products range from pitched residential roofs to flat commercial roofing



LEADING IN SUSTAINABILITY

STRATEGIC AIM

Sustainability is at the core of our growth strategy. We are decarbonizing construction with innovative low-carbon and circular solutions. By engaging with partners across our value chain, we are accelerating demand and capturing above-market profitable growth.

2023 Highlights

- Launch of Europe’s first calcined clay low-carbon cement operation
- Launch of ECOCycle® circular technology recycling platform
- Six CCUS projects selected for grants from the European Union Innovation Fund

2023 Related KPIs

- 3 percent CO₂ net/ton cementitious material reduction¹
- 20 percent CO₂/net sales reduction²
- 8.4 million tons of construction demolition materials (CDM) recycled
- CHF 241 million of CapEx is taxonomy-aligned

2023 PROGRESS

To reduce the clinker factor and decarbonize cement, we are replacing limestone with innovative mineral components, e.g. calcined clay and construction demolition materials (CDM).

In 2023, we launched Europe’s first calcined clay low-carbon cement operation in France, enabling us to deliver ECOPlanet low-carbon cement with 50 percent lower CO₂.

We also launched ECOCycle®, a proprietary platform to drive circular construction at scale across key metropolitan areas.

We continued to decarbonize our plants with Geocycle, replacing fossil fuels with alternatives for clinker production. In Europe, we already substitute over 80 percent of fossil fuels at 11 of our plants.

CCUS will help us achieve our net-zero roadmap, and six full-scale projects across Europe have been selected for grants from the European Union (EU) Innovation Fund that are planned to go live before 2030, allowing us to capture five million tons of CO₂ and deliver eight million tons of fully decarbonized cement a year.

2024 PRIORITIES

- Lead decarbonization of the built environment by promoting the value of sustainability to customers and industry partners
- Achieve double-digit growth in CDM
- Reduce CO₂ net/ton of cementitious material 2-4 percent versus 2023 in line with 2025 goal
- Advance 17 flagship CCUS projects under development worldwide

Read how we are Leading in Sustainability on page 54 in the [2023 Integrated Annual Report](#)



Built using Holcim’s low-carbon cement, Campus Aspern Seestadt in Vienna, Austria, covers 90 percent of its energy needs thanks to a geothermal energy process optimized by thermal concrete activation

¹ Compared to 2022

² 2023 Scope 1 + Scope 2 CO₂ emissions per million of net sales compared to 2022

STRATEGY 2025 IN ACTION



ACCELERATING GROWTH MILAN METRO

Projects like this one in Milan, Italy, show how we are putting our solutions to work to decarbonize construction in cities and improve quality of life.

Authorities in the city chose our low-carbon, circular solutions to expand the metro. In July 2023, Milan opened San Babila, the latest station on the new M4 line. Once finished, the line will connect the east and west of the city in under 30 minutes, and will be able to transport over 85 million people each year.

Holcim played a key role in the construction, supplying concrete made with low-carbon pozzolanic cement and half a million tons of excavation materials sourced onsite from the project.

Taken together, these solutions reduced CO₂ emissions by at least 30 percent, while significantly reducing the amount of virgin aggregates needed.

➔ For more about our decarbonized solutions see page 36



The city of Milan, Italy, chose Holcim's low-carbon, circular concrete for its new M4 metro line.



EXPANDING SOLUTIONS & PRODUCTS DURO-LAST

By acquiring Duro-Last in 2023, we bolstered our roofing offer in North America and positioned ourselves to meet growing demand for re-roofing.

When Crothersville Junior/Senior High School in Indiana, U.S., needed a new roof to improve energy efficiency and waterproofing, as well as install solar panels, school officials turned to Duro-Last.

The company removed and recycled the old roof via its "Recycle Your Roof" program, to create new roofing and flooring materials. A new solar-enabling roof system was installed, including Duro-Last Membrane and Duro-Guard®, Duro-Last's range of thermal roofing insulation systems to improve energy and heat loss. More drains were also added to direct water off the roof and away from solar panels.

↩ For more on Solutions & Products see page 44 in the [2023 Integrated Annual Report](#)



LEADING IN SUSTAINABILITY ADVANCED CRUSHING

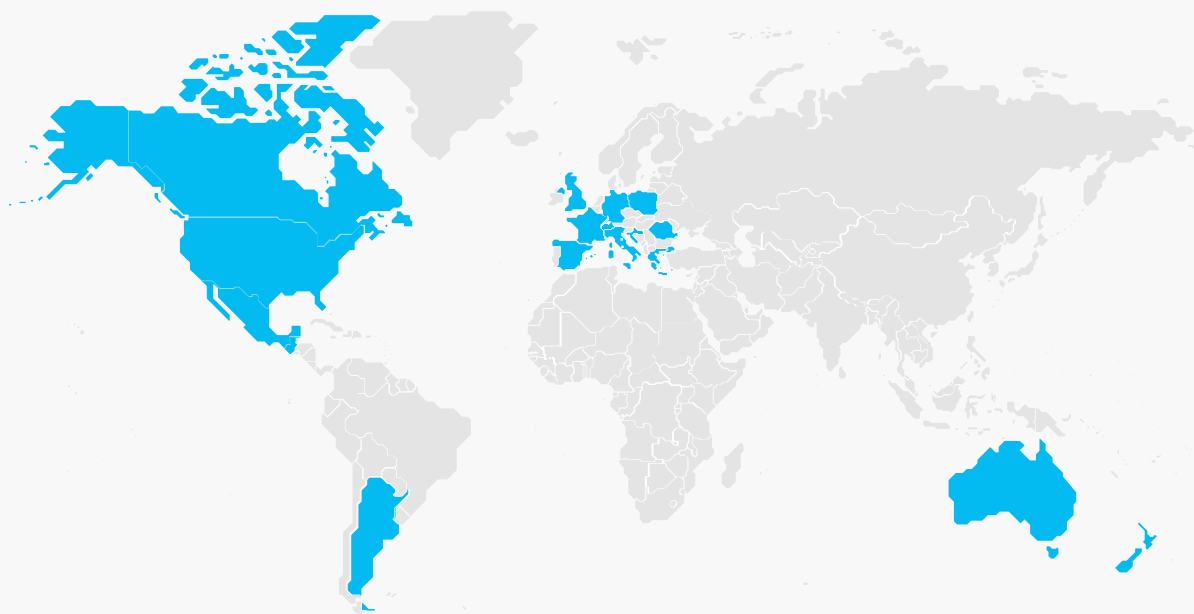
We launched our new advanced crushing system to scale-up our ECOCycle® circular technology platform. Using this technology, we can recycle 100 percent of concrete-based construction demolition materials (CDM) into new building solutions.

Our new facility at Saint-Laurent de Mure near Lyon, France, receives, processes and upcycles CDM from the city's metropolitan area into new environmentally advanced building solutions.

Using ECOCycle®, we can produce superior quality recycled construction aggregates for high-end applications. Additionally, this technology allows us to produce cement-rich fractions that we can use to replace limestone in cement making, which helps to decarbonize its manufacture.

➔ For more on circular construction see page 64

28 ACQUISITIONS IN 2023



SOLUTIONS & PRODUCTS

ROOFING

Quimexur

Argentina | Roofing & waterproofing

Cooper Standard
Technical Rubber

Germany | Roofing systems

FDT Flachdach
Technologie

Germany | Roofing systems

Indar

Mexico | Roofing & retail offering

PASA®

Mexico | Roofing & waterproofing

Duro-Last

U.S. | Roofing systems

SPECIALTY BUILDING SOLUTIONS

Minerales y Agregados

Guatemala | Mortars & adhesives

Eco-Readymix

UK | Mortars, AGG, RMX

PRECAST

HM Factory

Poland

Artepref

Spain

Besblock

UK

CEMENT, AGGREGATES AND READY-MIX

U.S.

Pioneer Landscape
Centers

AGG

Tezak Heavy
Equipment

AGG

CANADA

Westridge Quarries

AGG

AUSTRALIA

Vic Mix

RMX

NEW ZEALAND

AML¹

RMX

EUROPE

Beton Zdrug D.o.o.

Croatia | AGG

Chrono Chape

France | RMX

Klaus Heinz Group

Germany | AGG, RMX, CDM

Larsinos

Greece | AGG, RMX

W.A.T.T. Recycling

Greece | CDM, Recycling

Nicem

Italy | AGG

Ol-Trans

Poland | RMX

Stones Business
Development

Romania | AGG

Elite Cements S.L.

Spain | Cement

Fanger Kies und Beton

Switzerland | AGG, RMX

Sivyer Logistics

UK | CDM, AGG, RMX

OCL Regeneration

UK | CDM

¹ Ready-mix operations acquired from AML Ltd



The acquisition of Duro-Last in 2023 enhances our integrated roofing offer, as seen here at Crothersville High School in Indiana, U.S.

Through our disciplined M&A approach for superior value creation, Holcim has delivered 97 value-accretive transactions since 2018, with six major acquisitions in Solutions & Products, 72 bolt-on acquisitions and 19 divestments including India, Indonesia, Brazil and Malaysia.

In 2023, we continued the fast-paced execution of our transformation with 28 value-accretive acquisitions, expanding in Solutions & Products while strengthening our aggregates and ready-mix segments in core markets.

Solutions & Products acquired the iconic Duro-Last brand in the U.S., a leader. In commercial roofing systems, with a track record of double-digit growth in North America's highly profitable roofing market, which is worth over USD 40 billion.

Building on our growth in North America, we also accelerated the expansion of our roofing platform in Europe and Latin America.

In Europe, we acquired FDT Flachdach Technologie and Cooper Standard Technical Rubber in Germany, bringing strengths in thermoplastic roofs, as well as highly durable and technical products used for roofing systems.

We expanded our European business in precast, advanced mortars and adhesives, too, acquiring Eco-Readymix and Besblock in the UK, HM Factory in Poland and Artepref in Spain.

In Latin America, we advanced our ambition to become a leader in roofing and waterproofing systems, expanding our position by acquiring Quimexur in Argentina and PASA in Mexico. By acquiring Indar, a leading hardware wholesaler in that country, we added more than 10,000 products to our Disensa retail network.

97 VALUE-ACCRETIVE TRANSACTIONS 2018–2023

6

Solutions & Products major acquisitions

- Firestone Building Products
- Malarkey Roofing Products
- Duro-Last
- Polymers Sealants North America (PSNA)
- SES Foam LLC
- PRB Group

72

Bolt-on acquisitions in attractive markets

- 41 in Europe
- 22 in North America
- 5 in Latin America
- 4 in Asia Pacific

19

Divestments

including India, Indonesia, Brazil, Malaysia

HOLCIM AT A GLANCE

As a global leader in innovative and sustainable building solutions, we are working for our customers to build better with less, and advance our range of higher strength, low-carbon, circular and energy-efficient solutions.

WHAT WE STRIVE FOR

At Holcim we are leading the transition to sustainable building by decarbonizing construction as a driver of profitable growth. After achieving Strategy 2025 financial targets two years ahead of plan, we are driving growth with industry-leading margins, by delivering value over volume with our strong brands and advanced building solutions.

We have successfully shifted our focus to the most attractive markets, like North America, which represents 39 percent of net sales. We became a leader in advanced roofing and insulation systems with 11 acquisitions since 2021, and are leading the way in decarbonization in Europe to offer eight million tons of fully decarbonized cement per year by 2030. We invested for the future, too, in 2023, with 28 value-accretive acquisitions.

With sustainability at the core of everything we do, we create value for people and the planet. In 2023, we reduced CO₂ per net sales by 20 percent versus 2022, and we are accelerating this momentum with sustainable brands that generate billions in sales.

WHAT WE OFFER



SOLUTIONS & PRODUCTS

In advanced roofing, insulation and specialty building solutions, our focus is on system selling, as well as repair and refurbishment to create superior value – making buildings more energy-efficient, resilient and long lasting.



AGGREGATES

We offer aggregates for the most demanding construction projects, from sustainably sourced materials to construction demolition materials.



READY-MIX CONCRETE

Concrete is the most-used man-made material in the world, and it is at the core of decarbonizing construction at scale. From ECOPact to DYNAMax, our high-performance, innovative, sustainable solutions are designed to build better with less.



CEMENT

We are at the forefront of decarbonizing cement with ECOPlanet, the industry's broadest range of low-carbon cement, and are aiming to produce eight million tons of fully decarbonized cement per annum by 2030.

[Read more about Holcim's building solutions online](#)

63,448

People (full-time equivalent)

60

Markets

HOLCIM AROUND THE WORLD

NORTH AMERICA

North America is Holcim's largest market with 39 percent of Group net sales. Since 2020, we have rapidly grown our business from USD 6 billion to USD 11 billion today. We continue to increase our market share, and expand our footprint via organic growth and acquisitions.

With leading positions across all business lines and a state-of-the-art operational footprint with more than 850 sites, we are uniquely positioned to accelerate growth. North America is one of the most attractive fast-growth construction markets in the world today, with a USD 175 billion addressable market for Holcim.

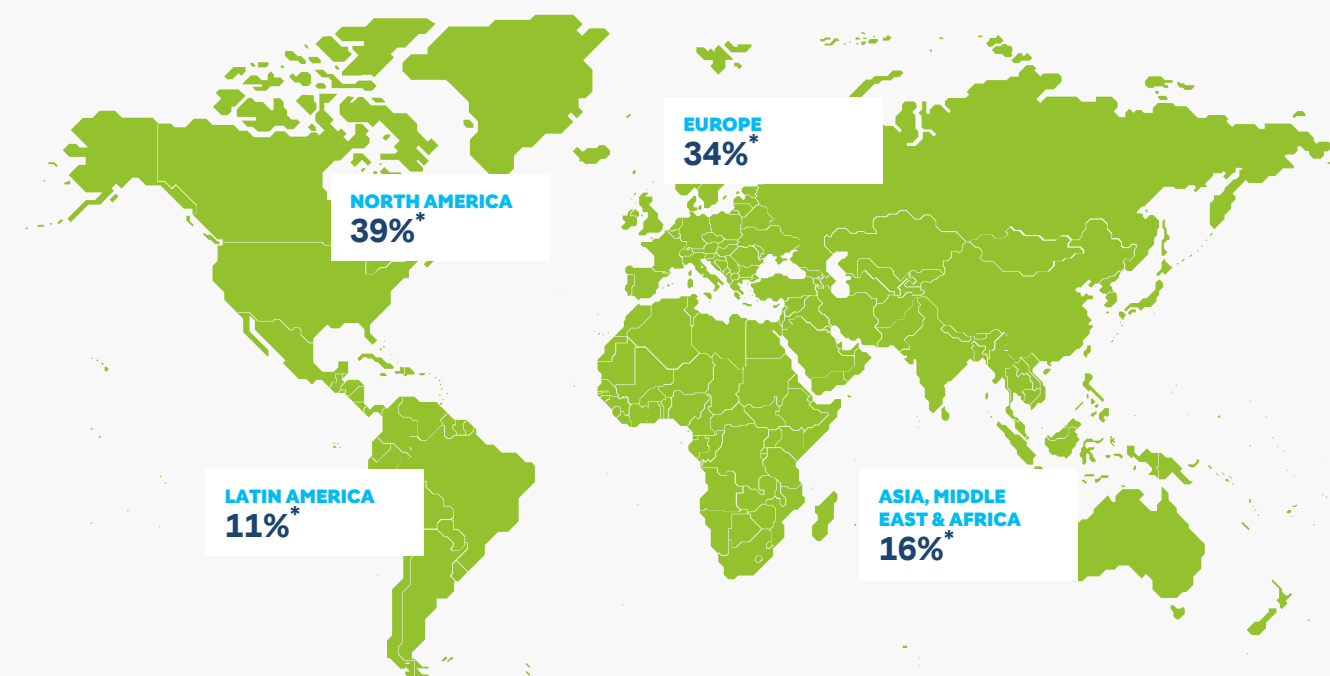
We are capitalizing on its construction boom and once-in-a-generation infrastructure investments, with over 100 infrastructure projects already secured for 2023–2026.

EUROPE

Europe is leading the shift to sustainable building, making decarbonization a driver of profitable growth, with the most ambitious targets in the industry. It is shifting from volume to value with its strong brands and range of advanced building solutions for low-carbon and circular construction.

We are ramping up carbon capture, utilization and storage (CCUS) with six full-scale projects in execution, selected for EU funding, to capture five million tons of CO₂ and offer eight million tons of fully decarbonized cement per annum by 2030.

Driving circular construction across all key metropolitan areas where we operate, we aim to recycle 20 million tons of construction demolition materials each year by 2030, operating over 150 recycling technology sites.



LATIN AMERICA

In Latin America, Holcim is positioned in the most high-value segments to support the region's dynamic modernization and infrastructure growth. In Mexico, we are at the core of signature projects from the Maya train and the Libertad dam in Monterrey, to manufacturing facilities, booming with the nearshoring trend.

With its strong market positions and premium solutions, this region delivers the most profitable growth within Holcim. As an integrated construction company, Holcim is present in nine countries, with a broad range of advanced solutions, from cement and ready-mix to admixtures, mortars, roofing and waterproofing.

ASIA, MIDDLE EAST & AFRICA

In Asia, Middle East and Africa, we are delivering strong value creation with margin expansion, while sharpening our footprint with selective divestments, including the signed divestments of our businesses in South Africa, Uganda and Tanzania. This region is focused on broad-based profitable organic growth in some of the fastest urbanizing markets.

Holcim is investing to further accelerate decarbonization, while we are launching and expanding sales of innovative low-carbon products, driven by the growing use of alternative fuels, as well as renewable energy and adoption of calcined clay.

* Percentages refer to share of net sales to external customers, excluding trading activities, by market

THE STRENGTH OF HOLCIM

Holcim's industry-leading earnings profile and record results position it to capitalize on growing demand and create stakeholder value.



ATTRACTIVE MARKETS

Accelerating growth in mature markets with our range of advanced building solutions.

- 39 percent of Group net sales in North America. With leading positions in all business lines, we are capitalizing on strong construction spend and infrastructure investments.
- 34 percent of net sales in Europe, with leadership in decarbonization and circularity driving profitable growth. Shifting from volume to value with our strong brands.
- 11 percent of net sales in Latin America, an emerging market with high margins and strong cash generation, with strong performance led by Mexico.
- 16 percent of net sales in Asia, Middle East & Africa. A focus on value, performance and margins for profitable growth; strong results led by Australia.

78%

Holcim's net sales in mature markets¹



HIGH-VALUE SOLUTIONS

Our portfolio of innovative and sustainable building solutions is driving profitable growth.

- Shifting from volume to value, we offer our customers innovative and sustainable building solutions, with multi-billion CHF brands from ECOPact and ECOPlanet, to Elevate and ECOCycle®.
- Solutions & Products is a leader in advanced roofing systems in North America, and has expanded its European footprint in precast, mortars and adhesives – with recent acquisitions including PRB Group. In Latin America, the segment is advancing its ambition with key acquisitions in roofing and waterproofing.
- Using Holcim's R&D engine we drive cutting-edge innovation for customers, from 3D printing to ultra-high strength concrete.

21%

Group net sales from Solutions & Products



LEADER IN SUSTAINABILITY

With sustainability at the core of our strategy, we offer advanced low-carbon, circular and energy-efficient solutions for a net-zero future.

- Holcim's net-zero targets are validated by the Science Based Targets initiative (SBTi) for all scopes. In Europe, we have the industry's most ambitious CO₂ reduction targets.
- Our innovative and sustainable solutions are now multi-billion brands delivering premium margins.
- We are decarbonizing our operations. With six full-scale CCUS projects across Europe selected for grants from the EU Innovation Fund, we aim to capture five million tons of CO₂ each year by 2030 and offer eight million tons of fully decarbonized cement per annum.

20%

Reduction in CO₂/net sales²

¹ Mature markets comprise North America, Europe and Oceania (Australia & New Zealand)

² 2023 Scope 1 + Scope 2 CO₂ emissions per million of net sales compared to 2022



EMPOWERED LEADERSHIP

Holcim's superior performance is driven by empowered leadership with a strong performance culture.

- Deeply embedded performance culture with more than 500 profit and loss (P&L) leaders empowered for customer-centric decision-making.
- Transparent and accountable performance management with a focus on Group targets.
- Embedded disciplined and value-focused acquisition framework, from valuation and due diligence to transaction closing, integration and synergies delivery.
- World-class Gallup employee survey results with 90 percent participation rate.
- Well-established Business School, from early career to leadership development, with 85 percent internal promotion rate.

500+

P&L leaders empowered to deliver our targets



SUPERIOR EARNINGS

We have the strongest earnings profile in our sector with industry-leading margins and Free Cash Flow generation.

- This is driven by our value over volume strategy, Holcim's innovative and sustainable solutions and our leadership in advanced roofing systems.
- Average growth of +0.8pp per annum in Group Recurring EBIT margin since 2018, with over-proportional growth in organic Recurring EBIT as part of our Strategy 2025.
- For the fifth consecutive year, Holcim generated more than CHF 3 billion of Free Cash Flow (FCF) after leases¹, reaching an industry-leading FCF margin of >12 percent.
- Record FCF after leases of CHF 3.7 billion in 2023.

3.7BN

CHF generated in Free Cash Flow after leases in 2023



SHAREHOLDER VALUE

We deliver above-market returns and shareholder value with profitable growth, industry-leading margins and strong cash flow.

- Strong Return on Invested Capital (ROIC) of 10.6 percent with 4.1 percentage points improvement since 2018.
- Sharpened geographic footprint in most attractive mature markets, led by superior returns, growth and leading technology and sustainability.
- Strong shareholder returns: CHF 8.8 billion cash returned to shareholders since 2018.

61%

Average dividend payout ratio over the past six years

¹ Before resolution with U.S. Department of Justice (DOJ)

CREATING VALUE FOR ALL



CUSTOMERS

Our low-carbon and circular building solutions help our customers meet sustainability and performance goals and obtain valuable certifications, such as LEED®, BREEAM® and WELL®. Covering the full value chain, from circular aggregates and low-carbon cement to advanced roofing and insulation, our solutions suit new constructions, as well as repair and refurbishment projects, and can be used in all types of buildings and infrastructure, from roads and tunnels to offices and wind turbines.

→ Read more on page 60

600

New products launched

19%

ECOPact share of total ready-mix net sales

PEOPLE

We are committed to attracting the best talent and fostering an inclusive, winning, high-performance culture based on continuous improvement. We promote diversity and empower young talent in strategic priority areas such as decarbonization and digitalization. Through annual employee surveys of our 63,448 people worldwide and our emphasis on continuous learning, we enable employees to realize their potential and accelerate green growth.

→ Read more on page 86

90%

Participation in employee satisfaction survey

1,209

Holcim people participated in a global leadership program

PLANET

Holcim is becoming a net-zero company with 1.5°C targets validated by the Science Based Targets Initiative (SBTi). We are on a mission to decarbonize building with circularity at the core of everything we do. At the same time, we are contributing to a nature-positive future through our science-based approach. This is focused on restoring and preserving biodiversity and freshwater ecosystems, while bringing more nature into cities.

→ Read more in our Climate Report on page 26

402M

Green CapEx invested CHF

8.4M

Tons of construction demolition materials recycled



COMMUNITIES

At Holcim, we embed human rights across our businesses, and with our partners and suppliers. We empower communities and improve their well-being through local partnerships. These include Habitat for Humanity, which is accelerating access to affordable housing in Mexico and Nicaragua. Through our Houses of Tomorrow projects in seven countries, we are enabling sustainable construction at scale. With our Essential Homes Research Project with the Norman Foster Foundation, we are working to make sustainable building possible for all.

[→ Read more on page 96](#)

24.8M

Contribution to social initiatives
CHF

100%

Holcim cement sites covered by Human Rights Assessments



SHAREHOLDERS

In 2023, we delivered superior performance for our shareholders. Net sales, debt leverage and Return on Invested Capital were strong and we reached an industry-leading Recurring EBIT margin. Solutions & Products grew to represent 21 percent of net sales and we sharpened our geographic footprint in mature markets. With a 42 percent reduction in CO₂ per net sales since 2020, Holcim is showing how decarbonization can lead to profitable growth.

[↩ Read more on page 5 in the 2023 Integrated Annual Report](#)

2.80

Proposed dividend per share
CHF

5.42

Earnings per share (EPS)¹
CHF

OUR MATERIAL IMPACTS AND PRIORITIES

Materiality provides an essential lens through which we determine our approach to building long-term value for all our stakeholders.

[↩ Read more on page 126](#)

¹ Before impairment and divestments

GLOBAL MEGATRENDS

As the backbone of urbanization, the building sector is essential for society to thrive. With our world's population rising and becoming increasingly urban, people aspire to better living standards. Taking housing alone, we will need to accommodate 2.5 billion more city dwellers by 2050¹.

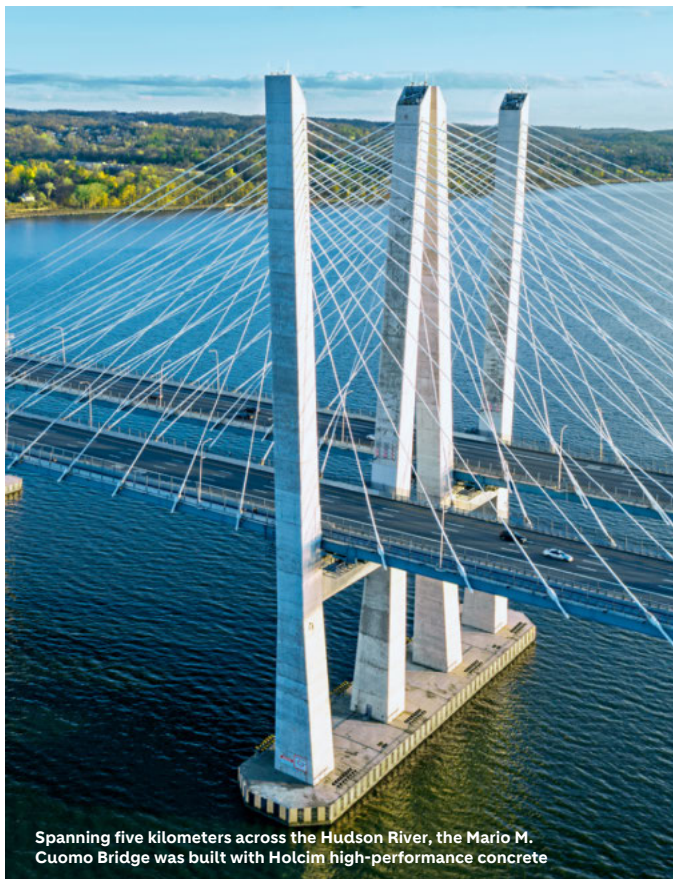
At Holcim, we are leading the way to sustainable building by addressing global megatrends and improving lives. We want to build circular cities, driven by:

- Sustainable buildings: from low-carbon construction to energy efficiency in use
- Smart infrastructure: connecting people with green mobility and empowering renewable energy
- Recycling: to keep materials in use, especially construction demolition materials
- Nature inside: from green roofs to buildings serving as vertical forests

With our advanced, low-carbon, circular, energy-efficient and nature-friendly solutions, we are accelerating the transition to build a future that works for people and the planet. By transforming how the world builds, we can transform lives.

“There has never been a more exciting time for the building sector. To make our world’s urbanization and infrastructure boom work for all, we are accelerating sustainable construction.”

JAN JENISCH
Chairman & CEO



Spanning five kilometers across the Hudson River, the Mario M. Cuomo Bridge was built with Holcim high-performance concrete

BUILDING NET ZERO WITH CONCRETE

At Holcim, decarbonizing building starts with concrete, the most used man-made material in the world. As the backbone of urbanization, it has a central role to play in decarbonizing construction. As an essential building material, it offers unrivaled durability, affordability and performance, while being 100 percent recyclable. It offers strong net-zero potential too.

Concrete acts as a carbon sink, reabsorbing more than 20 percent of the CO₂ emitted in its production throughout its lifespan². Additionally, changes to its production process – from the use of alternative materials and energy sources to carefully managed use of water – can radically improve concrete’s sustainability profile.

Since one ingredient in concrete is cement – which accounts for seven percent of the world’s CO₂ emissions³ – decarbonizing it is a priority for a net-zero future. Holcim is innovating to offer eight million tons of fully decarbonized cement per year by 2030, which has the potential to enable net-zero concrete as a sustainable building material of choice.

¹ World urbanization prospects 2018 report, United Nations

² Carbon uptake data, Global Cement and Concrete Association

³ Decarbonizing cement and concrete value chains, McKinsey & Co. 2023 article



CLIMATE AND NATURAL RESOURCES

Climate change and adaptation, resource scarcity and the need to transition to net zero are driving demand for sustainable construction solutions.



POPULATION GROWTH

The world's population is expected to grow from 8 billion today to 9.7 billion by 2050¹, with increasing pressure on resources and rising demand for housing and infrastructure.



BETTER LIVING STANDARDS

The world demands better living standards and more efficient infrastructure. Construction is essential to improve people's quality of life.



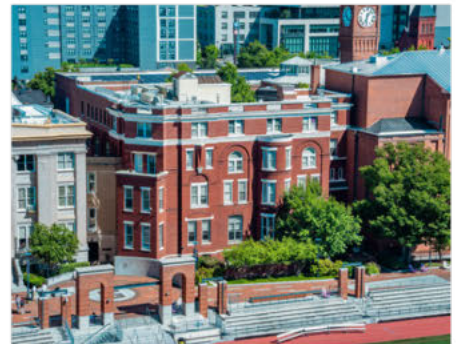
URBANIZATION AND MEGACITIES

Around 2.5 billion more people are expected to live in cities by 2050², creating pressure on resources and infrastructure. As the backbone of urbanization, cement and concrete enable essential urban infrastructure.



INNOVATION-DRIVEN BUILDING

Innovation-driven building technologies are in greater demand than ever before, especially light and modular construction solutions and smart building technologies.



REPAIR AND REFRUBISHMENT

An estimated 80 percent of today's buildings will still be in use by 2050³. Property owners are increasingly looking to repair and refurbish buildings to make them more sustainable in use.

9.7BN

World population by 2050¹

6.7BN

Urban population by 2050²

80%

Of Europe's building stock will still be in use in 2050³

¹ United Nations population data

² World urbanization prospects 2018 report, United Nations

³ Accelerating the decarbonization of buildings, World Economic Forum briefing paper, 2022

ENVIRONMENTAL MATTERS, IN PARTICULAR CO₂ GOALS

ART. 946B CONTENT REQUIREMENT

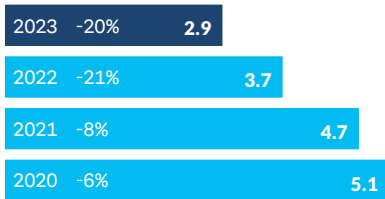
24 Sustainability performance highlights

26 [2023 Climate Report](#)

SUSTAINABILITY PERFORMANCE HIGHLIGHTS 2023

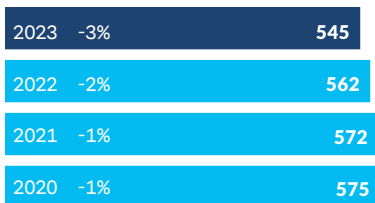
We further reduced our carbon intensity, accelerated CCUS, and scaled up circular construction, while delivering on our nature and people targets.

REDUCTION OF CO₂ PER NET SALES %



- Continues to decrease, down 20 percent from full year 2022.

REDUCTION OF CO₂ NET PER TON OF CEMENTITIOUS KG



- Picking up momentum towards net zero, Holcim accelerates CO₂ reduction to 3 percent with solid progress across all decarbonization levers.

DECARBONIZATION

CO₂ REDUCTION

20%

CO₂/net sales¹

CO₂ NET PER TON OF CEMENTITIOUS

3%

Reduction in 2023²



SCIENCE
BASED
TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

First in our sector with net-zero targets validated by SBTi

¹ 2023 Scope 1 + Scope 2 CO₂ emissions per million of net sales, compared to 2022
² Compared to 2022

CCUS AMBITION

PROJECTS

6

CCUS projects in execution

CO₂ CAPTURED

5M

Tons per annum by 2030



'Energy Transition Changemaker' and 'Mission Innovation Net Zero' Awards

CIRCULARITY

RECYCLED

8.4M

Tons of construction demolition materials (CDM)

CIRCULAR CONSTRUCTION

+24%

Recycling of CDM compared with 2022



'Circularity Lighthouse Award' for our ECOcycle® technology

NATURE

FRESHWATER WITHDRAWAL

298

Specific freshwater withdrawal L/ton of cementitious material 2022: 304 L/ton

BIODIVERSITY

64%

Biodiversity baselines assessed using BIRS¹ methodology (+33% versus 2022)



Official Taskforce member and early adopter in 2023

¹ Biodiversity Indicator Reporting System

PEOPLE

EMPLOYEES

78%

Level of engagement Engagement Survey

DIVERSITY

21%

Women in Senior Management (+1% since 2022)



First place in Fast Company's Sustainability ranking

2023 CLIMATE REPORT

“In 2023, we accelerated climate action, making progress across all of our decarbonization levers to lead the transition to sustainable building.”

NOLLAIG FORREST
Chief Sustainability Officer



New York City's iconic One World Trade Center was built with 150,000 m³ of specially-designed Holcim concrete, manufactured using recycled materials



CONTENTS

DECARBONIZING BUILDING FOR A NET-ZERO FUTURE

- 28 Climate leadership
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- 70 Advocacy and engagement
- 78 Just Transition
- 82 Holcim Foundation

CLIMATE REPORTING

Read more about Climate Reporting in the *2023 Integrated Annual Report*.

- ☞ Climate governance. Read on page 167
- ☞ Climate-related risks and opportunities. Read on page 236
- ☞ Scenario analysis. Read on page 252
- ☞ Performance data tables. Read on page 402

LEADING IN ESG DISCLOSURES & TRANSPARENCY

Read more about our transparent ESG disclosures in the *2023 Integrated Annual Report*.

- ☞ Art. 964b Swiss Code of Obligations. Read on page 434
- ☞ EU Taxonomy. Read on page 266
- ☞ TCFD. Read on page 238
- ☞ TNFD. Read on page 238

CLIMATE HIGHLIGHTS 2023

20%

Reduction in CO₂/net sales¹

5M

Tons of CO₂/annum captured by 2030

3%

Reduction in CO₂ net/ton of cementitious material²

8.4M

Tons of CDM recycled

6

CCUS projects in execution

+24%

Recycling of CDM²

¹ 2023 Scope 1 + Scope 2 CO₂ emissions per million of net sales compared to 2022

² Compared to 2022

LEADING IN SUSTAINABILITY CONTINUED

CLIMATE LEADERSHIP

We are decarbonizing Holcim for people and the planet, from our operations and solutions through to buildings in use.

CASE STUDY

Decarbonization in Europe

Leveraging an advanced regulatory environment, we have set the industry's most ambitious targets to make decarbonization a profitable growth driver in Europe.

Meeting customers' sustainability needs, Holcim is expanding its multi-billion brands delivering premium margins. By 2030 we aim to grow our low-carbon cement ECOPlanet to reach more than 50 percent of cement net sales, and produce eight million tons of fully decarbonized cement each year.

Making circularity a driver of profitable growth, we want to increase our ECOCycle® circular technology platform to 150 sites in Europe by 2030, to recycle 20 million tons of construction demolition materials per annum.

We are accelerating CCUS too. Six full-scale projects have been selected for EU funding to capture five million tons of CO₂ annually by 2030, while delivering high returns, with eight additional projects in development.



Learn more on our website





CityLife in Milan, Italy, is one of the most important urban redevelopment projects in Europe. Two iconic skyscrapers set in a new park, a brand new shopping district and a new metro line have all been built with Holcim products

LEADING IN SUSTAINABILITY CONTINUED

CLIMATE

MAKING PROGRESS ACROSS ALL DECARBONIZATION LEVERS

ACCELERATING GREEN GROWTH
IMPACT DASHBOARD

2023 IMPACT

ECOPACT READY-MIX NET SALES

19%

ON TRACK

TONS OF CONSTRUCTION DEMOLITION MATERIALS RECYCLED

8.4M

ON TRACK

GREEN CAPEX CHF

402M

ON TRACK

SUSTAINABLE FINANCE

40%



REDUCTION CO₂ NET/T CEM YEAR-ON-YEAR

3%



RECOGNIZED CLIMATE AND NATURE LEADERSHIP



DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

First in sector with SBTi-validated net-zero targets



Piloting science-based targets for nature



Signatory since 2017 with aligned reporting



Taskforce member and early adopter

2025 IMPACT

25%

10M

500M

40%

2%–4%

BY 2030

AMBITIONS FOR A 1.5°C FUTURE

5M

Tons of CO₂ captured each year in Europe using CCUS

2BN

Investment in CCUS CHF

8M

Tons of net-zero cement per annum

BUSINESS AMBITION FOR 1.5°C   **OUR ONLY FUTURE**



'Energy Transition Changemaker'



'Circularity Lighthouse Award'



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

Six CCUS projects selected for EU grants

LEADING IN SUSTAINABILITY CONTINUED

CLIMATE

DECARBONIZING HOLCIM TO BECOME NET-ZERO

At Holcim, we take a science-driven approach to becoming a net-zero company. In 2023, we made strong progress towards our targets, which are in line with the 1.5°C framework.

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 towards 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 140–155



What is new?

We have further updated our 2030 and 2050 targets by:

- Upgrading our combined Scope 1 & 2 2030 targets to meet the latest SBTi validation criteria
- Extending our 2050 target coverage to include all 15 categories of Scope 3 emissions

FOR YEARS, HOLCIM HAS BEEN AT THE FOREFRONT OF CLIMATE ACTION:

2020	2020 / 2021	2021 / 2022	2023	2023
<p>In 2020, Holcim was the first global building solutions company to sign the United Nations Global Compact’s ‘Business Ambition for 1.5°C’ initiative, with intermediate 2030 targets approved by SBTi.</p>	<p>In 2020, we launched ECOPact concrete, and followed that in 2021 with the launch of ECOPlanet cement, to offer the broadest range of low-carbon solutions.</p>	<p>In 2021, Holcim was first in its sector with SBTi-validated 2030 and 2050 net-zero targets. In 2022, we upgraded our 2030 targets to align with our sector’s new 1.5°C science-based framework.</p>	<p>In 2023, Holcim was selected for funding from the European Union (EU) Innovation Fund for six of its breakthrough carbon capture, utilization and storage (CCUS) projects in Germany, Poland, Greece, France, Croatia and Belgium.</p>	<p>Holcim committed to producing eight million tons of fully decarbonized cement per annum by 2030, thanks to the six CCUS projects in Europe that are planned to go live before 2030. One of the projects, Lägerdorf in Germany, won two awards at COP28.</p>

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 percent per ton of cementitious materials by 2030 from a 2018 base year.¹ This is equivalent to a 25 percent 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 percent, from a 2020 base year.

In addition, Holcim commits to reduce Scope 3 GHG emissions from fuel and energy-related activities by 20 percent per ton of purchased fuels and Scope 3 GHG emissions from downstream transport and distribution by 24.3 percent per ton of materials transported by 2030.²

Long-term targets

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

From climate to nature

Leveraging our rigorous science-driven approach from climate to nature, Holcim was selected as one of only 17 companies to pilot our world's first science-based targets for nature. This builds on Holcim's industry-first measurable approach to nature, developed with the International Union for Conservation of Nature (IUCN), the Biodiversity Indicator Reporting System (BIRS), to enable a nature-positive future.

[Read more on page 125 in the 2023 Integrated Annual Report](#)



	Target Base Year	2018	2023	2030	2050
SCOPE 1 KG CO ₂ / T cementitious		623	587	-23.3% ⁴	-95% 
		590 _{net}	545 _{net}	420 _{net}	
SCOPE 2 KG CO ₂ / T cementitious		46	36	-65% ⁴	-90% 
SCOPE 3	2020				
PURCHASED CLINKER AND CEMENT KG CO ₂ / T cementitious		710	702	-25.1%	-90% 
PURCHASED FUELS KG CO ₂ / T cementitious		286	283	-20%	
DOWNSTREAM TRANSPORTATION KG CO ₂ / T cementitious		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 percent of Scope 1 and 2 emissions and 90 percent of Scope 3 emissions, per SBTi standard

⁴ Equivalent to the SBTi validated combined Scope 1 and 2 ambition of -26.2 percent

LEADING IN SUSTAINABILITY CONTINUED

CLIMATE

OUR CO₂ 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 59 percent 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. Thirty-nine percent 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 operations.

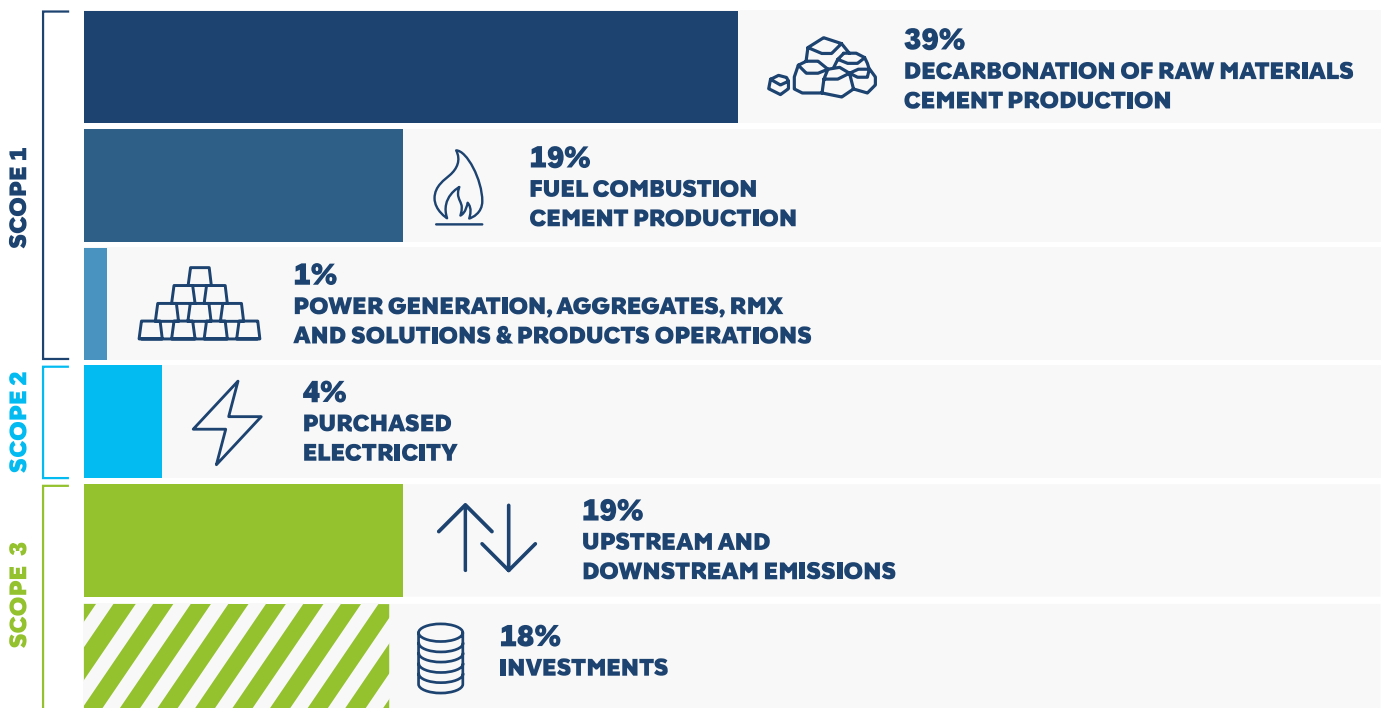
Scope 2

Scope 2 emissions account for four percent 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 37 percent of our carbon footprint. Scope 3 includes all other indirect emissions generated in our value chain, such as for transportation and 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 46

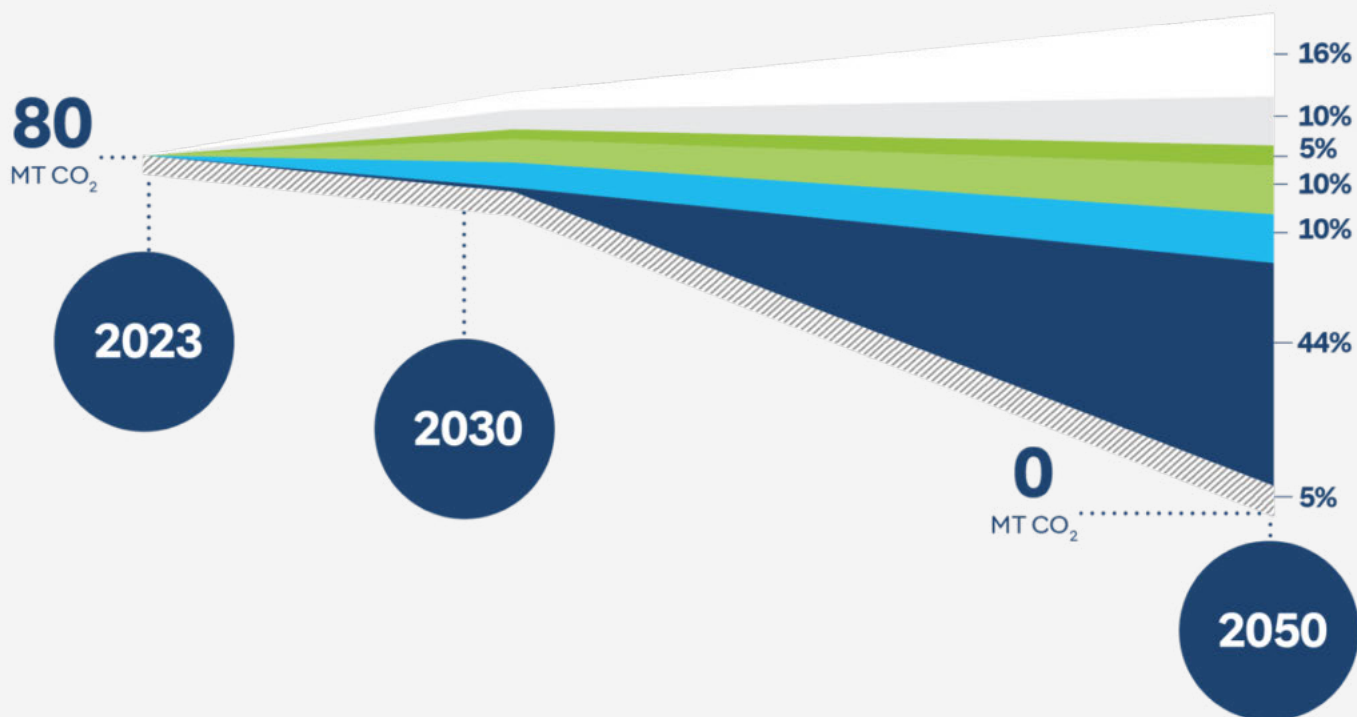


HOLCIM'S PATHWAY TO NET ZERO

Our pathway to 2030 and 2050 is clear. To reach our 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.

We will scale up breakthrough technologies such as Carbon Capture, Utilization and Storage (CCUS), which will make an increased contribution in terms of reaching our targets post 2030. Our pathway to net zero does not rely on offsets.

OUR ABSOLUTE SCOPE 1 + SCOPE 2 EMISSIONS PATHWAY



Efficiency gains in design & construction	Leveraging smart design and low-carbon formulation of concrete, as an increased focus on upfront carbon per m ² moves the market to more carbon-efficient construction
Efficiency gains in concrete	
Decarbonized electricity	Increasing the share of decarbonized electricity by leveraging power purchase agreements and onsite renewable electricity, together with decarbonization of the electrical grid
Less clinker in cement	Replacing clinker in our final cement products with mineral components, such as calcined clay and novel binders, we aim to reduce our clinker factor from 72 percent in 2023 to 68 percent in 2030
Less CO₂ in clinker	Producing clinker with decarbonized raw materials, increasing energy efficiency and transitioning to alternative fuels. Our thermal substitution rate will increase to 50 percent in 2030 and 70 percent in 2050
CCUS and other advanced technologies	With advanced technologies such as carbon capture, utilization and storage (CCUS) and other breakthrough process innovations, we aim to capture five million tons of CO ₂ and produce eight million tons of fully decarbonized cement per year by 2030
Passive recarbonation	Natural reabsorption of CO ₂ during the lifetime of concrete products

LEADING IN SUSTAINABILITY CONTINUED

CLIMATE

DECARBONIZING OUR SOLUTIONS

We offer a broad range of sustainable building solutions and use our formulation expertise to decarbonize our concrete and cement.

ECOPact and ECOPlanet both offer CO₂ reductions of at least 30 percent compared to standard (CEM I/OPC) local concrete and cement, respectively.

Alternative raw materials

The majority of emissions from the cement production process results from the calcination of limestone into clinker. This part of the process is our largest source of CO₂ emissions, accounting for 39 percent of our total carbon footprint.

Decarbonized materials reduce emissions in two ways: they emit less CO₂ and require 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.
- Historical 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 develop new alternative material streams.

“Ste. Genevieve underscores Holcim’s commitment to the U.S. Department of Energy’s Better Climate Challenge, to reduce net CO₂ emissions in the U.S. by at least 25 percent by 2033.”

TOUFIC TABBARA

Region Head North America



Ste. Genevieve is North America’s largest cement-producing facility

DECARBONIZING CEMENT IN NORTH AMERICA

We are investing USD 100 million to expand our Ste. Genevieve cement plant in Missouri, U.S., and increase finished cement production capacity by over 600,000 tons to meet strong industry demand.

The project will enhance processing and allow cement production capacity to increase while reducing net CO₂ emissions by more than 400,000 tons per year.

Work is due to be finished in late 2025, and the capital investment will increase circularity and accelerate decarbonization across the built environment.

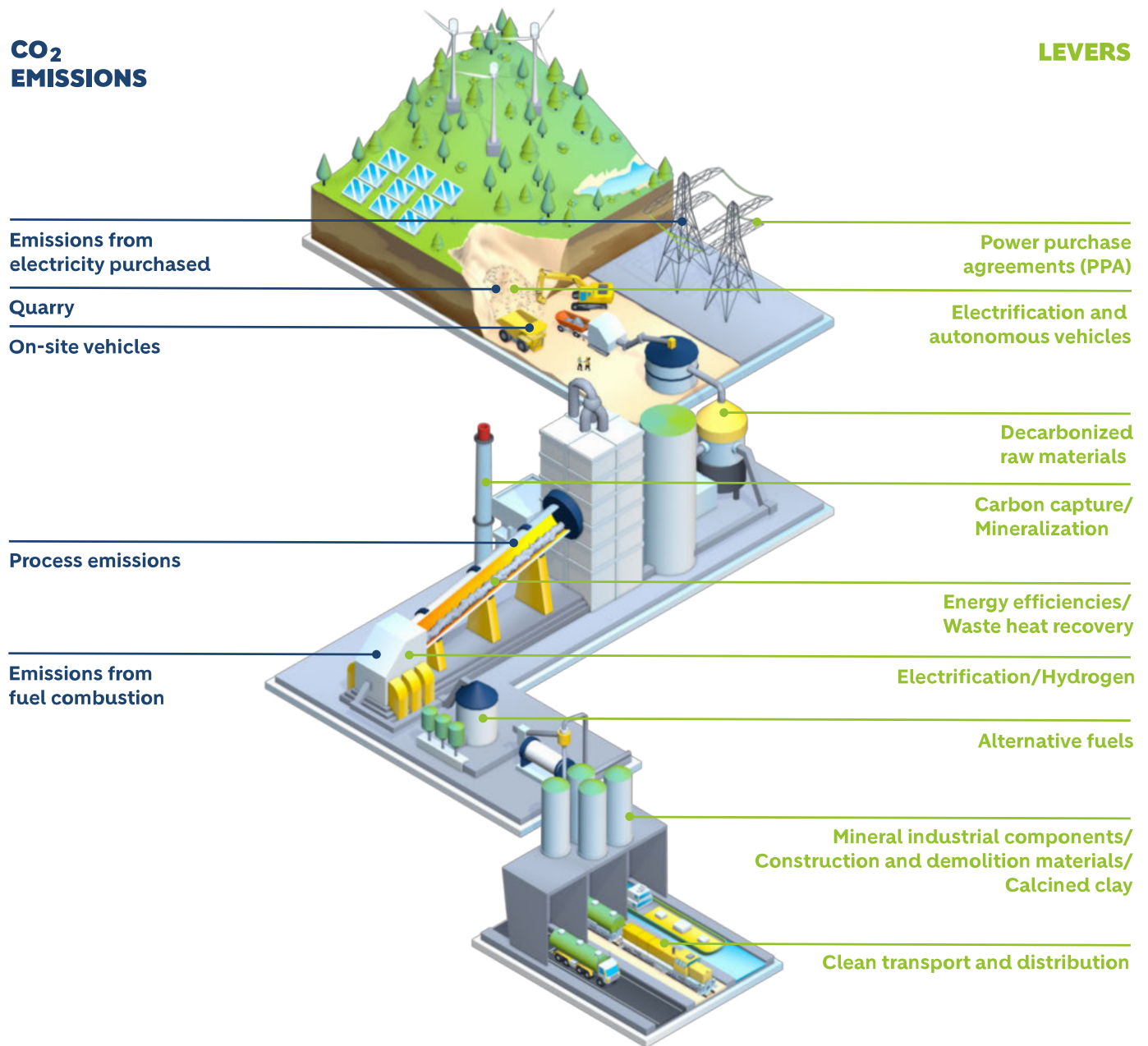
This action further underscores Holcim’s commitment to the U.S. Department of Energy’s (DOE) Better Climate Challenge to reduce net CO₂ emissions in the U.S. by at least 25 percent by 2033. The Better Climate Challenge is intended to drive real-world action that reduces carbon emissions and saves energy.

HOW WE ARE DECARBONIZING HOLCIM

From our products to our process

CO₂ EMISSIONS

LEVERS



	Base Year 2018	2023	Target 2025	Target 2030	Target 2050
SCOPE 1 KG CO ₂ , net/T cementitious	590	545	520	420	
SCOPE 2 KG CO ₂ /T cementitious	46	36	—	16	

LEADING IN SUSTAINABILITY CONTINUED

Mineral components to reduce clinker factor

Our Scope 1 emissions pathway aims to reduce both the level of CO₂ in clinker and the clinker factor of our cement. We aim to decrease our clinker content from 72 percent currently to below 68 percent by 2030 and reduce it further by 2050.

Beyond recycling clinker, replacing it in our final cement products with mineral components significantly reduces the carbon intensity of the cement product.

At Holcim, we use four major categories of mineral components to reduce emissions from our cement and concrete mixes:

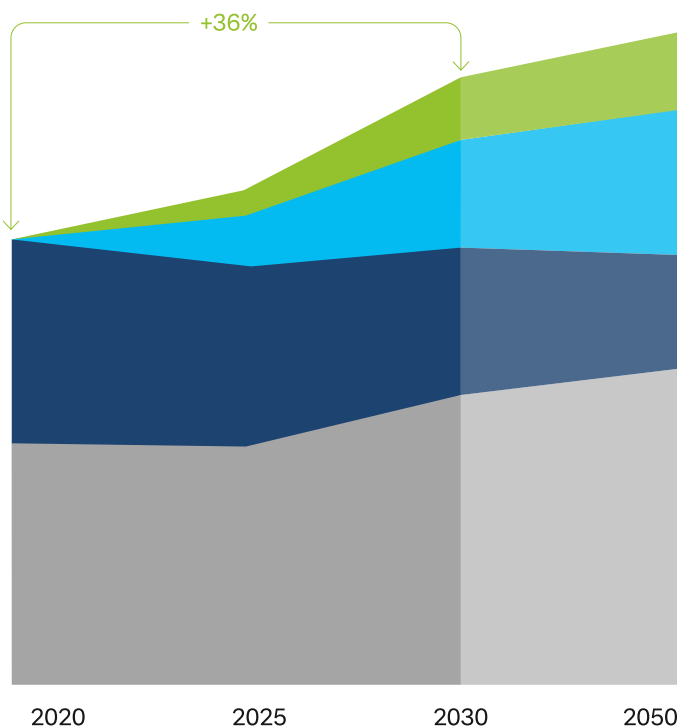
- Recycled cement paste from construction demolition materials (CDM)
- Innovative mineral components like calcined clay, pozzolana and reclaimed ashes
- Waste from other industries, including slag and fly ash, to replace virgin limestone and avoid landfill
- Traditional mineral components like limestone 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. Our most advanced ECOCycle® circular solution in Europe can reduce the CO₂ footprint of cement by up to 40 percent based on recycling cement paste from CDM.

We are also scaling up the use of innovative mineral components like calcined clay that can reduce the footprint of cement by up to 50 percent, 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.



We are scaling up calcined clay cement production across our regions

Replacing limestone-based clinker

Calcined clay is a mineral powder obtained through the calcination of natural clays at a relatively low temperature. It acts as a replacement for limestone-based clinker in the final cement, allowing us to produce cement with up to 50 percent less CO₂ than standard cement. Globally, clay is one of the most abundant natural resources, and is therefore a highly scalable solution to produce low-carbon building materials.

At Holcim, we are increasing use of calcined clay in our formulations. Our plant in Macuspana, Mexico, was the first Holcim site in Latin America to produce cement with calcined clay. This formulation reduces the clinker factor by up to 55 percent and enables the plant to deliver ECOPlanet low-carbon cement with an up to 50 percent lower CO₂ footprint versus ordinary cement (CEM I).

Our plants in Apaxco and Tecomán in Mexico now use calcined clay too, with the same planned for our Malagueño plant in Argentina in 2024.

Scaling calcined clay across Europe

As part of our European roadmap to decarbonize construction, we launched Europe's first calcined clay low-carbon cement operation at our Saint-Pierre-la-Cour plant in France in 2023.

The plant aims to deliver ECOPlanet low-carbon cement with an up to 50 percent lower CO₂ footprint compared to ordinary cement (CEM I). This advanced production line, a world first, runs on our 'proxima Tech' proprietary technology, and will produce both clinker and calcined clay, to deliver up to 500,000 tons of low-carbon cement per year.

Operations onsite are powered using 100 percent alternative fuels coupled with waste-heat recovery systems.

The project received financial support from the French government as part of the "France Relance" plan to invest in large-scale decarbonization and energy efficiency projects.

Opening the first calcined clay cement production line in Europe is a milestone to decarbonize building. We aim to scale up our calcined clay cements in Austria, Bulgaria, Czech Republic, Germany, Romania, Spain and Switzerland.

More broadly, we will continue to advance our ECOPlanet range of low-carbon cements across all regions by 2025.

50%

Potential CO₂ reduction using calcined clay

72%

Clinker factor in 2023
(73% in 2022)

10.2%

Alternative raw materials in cement
(9.3% in 2022)

LEADING IN SUSTAINABILITY CONTINUED

CLIMATE

DECARBONIZING OUR ENERGY MIX

At Holcim, we are shifting to alternative 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 CO₂ emissions. For example, at our plant in Obourg, Belgium, we are installing an innovative oxyfuel cement kiln that significantly reduces CO₂ emissions. In combination with CCUS (see page 52), 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 modernize our plants. Using digital solutions, we are creating connected, smart and energy-efficient sites that will complement our other decarbonization levers.

Using alternative fuels

The International Energy Agency anticipates that fossil fuel consumption will peak by 2030. At Holcim, the 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 (see page 42), offers us a safe and ecological solution in line with international standards. Taking a circular approach, we are reducing the carbon intensity of our cement by using pre-treated non-recyclable and biomass waste fuels in place of fossil fuels.

Waste sources include biomass, sewage sludge, shredded waste, fluff, solvents, waste oils and tires, all of which can be used to generate energy.



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 and reduce CO₂ emissions.

“In Europe, our plants aim to operate with 90 percent alternative fuels by 2030. Today, 11 sites already run with over 80 percent.”

MILJAN GUTOVIC

Region Head Europe and CEO Designate



We are decarbonizing our energy mix using Geocycle alternative fuels

In 2023, 30.1 percent of Holcim’s thermal energy demand for clinker production came from alternative fuels. By investing in co-processing facilities and process improvements, we aim to increase this thermal substitution rate to 50 percent by 2030 and over 70 percent by 2050.

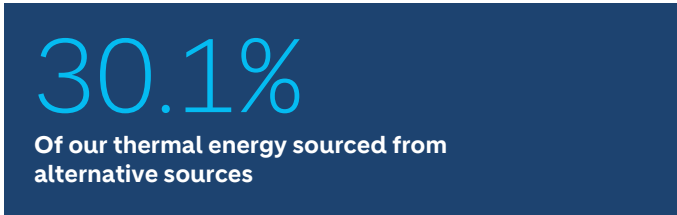
Currently, 11 of our facilities in Europe already run on more than 80 percent of their energy from alternative fuels, offering a high-yield source of energy for heat production.

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

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 eight operational waste-heat recovery units, producing 318 gigawatt hours of zero-carbon electricity. This translates to a carbon reduction of 165,000 tons annually. Our goal is to triple the number of waste-heat recovery units by 2030.



LEADING IN SUSTAINABILITY CONTINUED

Driving profitable decarbonization and circularity

Our Geocycle business transforms waste into resources to support our sustainability ambition. Geocycle maximizes resource value: recycling when possible, while valorizing non-recyclable materials.

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. Geocycle sets and promotes industry-leading standards and provides sustainable resources management solutions to multinationals and municipalities worldwide.

In 2023, Geocycle supported Holcim’s decarbonization and circularity targets by recycling 13.9 million tons of waste and byproducts for use as decarbonized energy or in raw materials.

“We wanted to combine the ecological leadership, culture, and way of life on Galapagos, with the mission of turning Santa Cruz Island waste-free.”

LUIS RIVAS

Head of Geocycle at Holcim Ecuador



ADVANCING A RECYCLING CULTURE IN THE “ENCHANTED ISLANDS”

Known as the “Enchanted Islands”, the Galapagos archipelago is home to many unique species and is a UNESCO Natural World Heritage Site.

For years, proper waste management was one of the greatest concerns for residents and the authorities. To solve this issue and preserve the precious natural state of the islands, Holcim and Geocycle Ecuador are working to enable a waste recovery revolution on Santa Cruz Island.

Together with the island’s residents, we have recovered 59 percent of waste since 2022, and processed 50 tons of non-recyclable waste into alternative fuels to power our plants in Ecuador.

A team of journalists recently traveled to Santa Cruz to learn first-hand how residents are embracing this recycling culture to preserve the island’s beauty and ensure that biodiversity continues to thrive.

Watch their documentary film using the link below.

Watch video online here



59%

Recovery of waste on Santa Cruz

50

Tons of non-recyclable waste transformed into resources each year



New solar arrays at our ready-mix concrete plant at Fort Totten, Washington, D.C. (U.S.)

Shifting to renewable electricity

Electricity makes up a significant portion of our energy use. To decarbonize electricity, we are shifting to renewable energy sources like solar, hydro and wind power wherever possible.

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

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 percent renewable energy. Globally, we aim to reduce the carbon intensity of Scope 2 emissions by 65 percent by 2030, against a 2018 baseline.

Where renewable electricity sources are not readily available, we install energy facilities on our own sites.

Generating solar energy in the U.S.

By installing new solar arrays at our ready-mix concrete plant at Fort Totten, Washington D.C., we have reduced our dependency on fossil fuels. The silo rooftop solar modules and a separate carport with solar modules aims to generate 1,300 to 1,500 megawatt hours per year of renewable energy – to cover around 90 percent of site operations.

Harnessing solar power

We continue to make progress in rolling out solar power across our operations in Europe and the Americas:

- In Belgium, we plan to operate our first floating photovoltaic installation from 2024. It aims to supply 15 percent of our Obourg plant's electricity.
- In the U.S., we generate 10 megawatts of solar energy at our Hagerstown plant in Maryland, reducing CO₂ emissions by over 12,000 tons.
- In Nicaragua, at our Nagarote plant, up to 35 percent of electricity to power operations will be sourced from a new solar park we are building.

LEADING IN SUSTAINABILITY CONTINUED



Building with blades

Holcim is a proud member of the consortium that launched the EU-funded BLADES2BUILD project. The innovative project aims to transform used wind turbine blades into circular construction materials, enabled by our ECOCycle® technology platform.

Our collaboration with other partners on this project helps to further our commitment to building new from the old, promoting a circular economy.



Funded by the European Union

Generating our own renewable energy

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 percent of the site’s electricity, reducing CO₂ emissions by 9,000 tons per year.

Winds of change in Germany

Our plants in Germany are at the forefront of harnessing wind energy to power our operations.

Thanks to their advantageous geographical positions, our Lägerdorf (Schleswig-Holstein) and Höver (Lower Saxony) plants met 80 percent and 52 percent of their electricity needs respectively through onshore wind power in 2023.

In total, Holcim’s operations in Germany procured 59 percent of electricity for cement production from green sources, a 15 percent increase compared to 2022. Wind power contributed to a 100 percent share of this and saved 86,000 tons of CO₂ emissions in 2023.

Leveraging renewable 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. They typically specify pricing, electricity quantities and renewable sources.

In 2023, we signed our largest green energy contract to date with Iberdrola, a global leader in renewable energy. Iberdrola will supply 250 gigawatt hours of wind energy per year to power our operations in Germany. We also signed a memorandum of understanding to investigate the possibility of more clean energy projects across Europe. This includes evaluating Holcim plants to identify opportunities to install renewable energy facilities onsite – from solar to green hydrogen.

We are rolling out renewable energy PPAs around the world:

- In Europe, we secured additional long-term power supply from renewable sources in Poland, Spain and Belgium. We also signed agreements to offtake renewable power from new solar facilities in Romania and the Czech Republic.
- In North America, Holcim signed two new PPAs to supply solar power and services for our plants in Portland and Alpena and a new virtual power purchase agreement for our Exshaw plant in Canada.
- In Latin America, we secured additional power supply from renewable sources in Argentina and finalized a number of rooftop solar projects in Mexico.

Supporting the energy transition

In addition to using renewable energies and alternative fuels to sustain our own operations, we have a responsibility to facilitate essential infrastructure for the wider energy transition.

Renewable energy adoption is rapidly expanding, with the International Energy Agency estimating that there was an extra 500 gigawatts of renewable generation capacity in 2023. Our low-carbon building solutions offer dependable, cost-efficient and high-performance infrastructure for all solutions – from dams to wind farms.

In 2023, Sabowind, a full-service wind energy provider, initiated operations at a new wind farm in Markowice, Poland. This project used 4,200m³ of ECOPact concrete, leading to a 31 percent reduction in emissions during construction. The wind farm will generate 300 gigawatt hours (GWh) of electricity annually, serve approximately 75,000 homes and mitigate 100,000 tons of CO₂ emissions.

“By providing low-carbon construction materials for renewable energy infrastructure, like windmills, we are helping to accelerate the energy transition.”

NOLLAIG FORREST

Chief Sustainability Officer

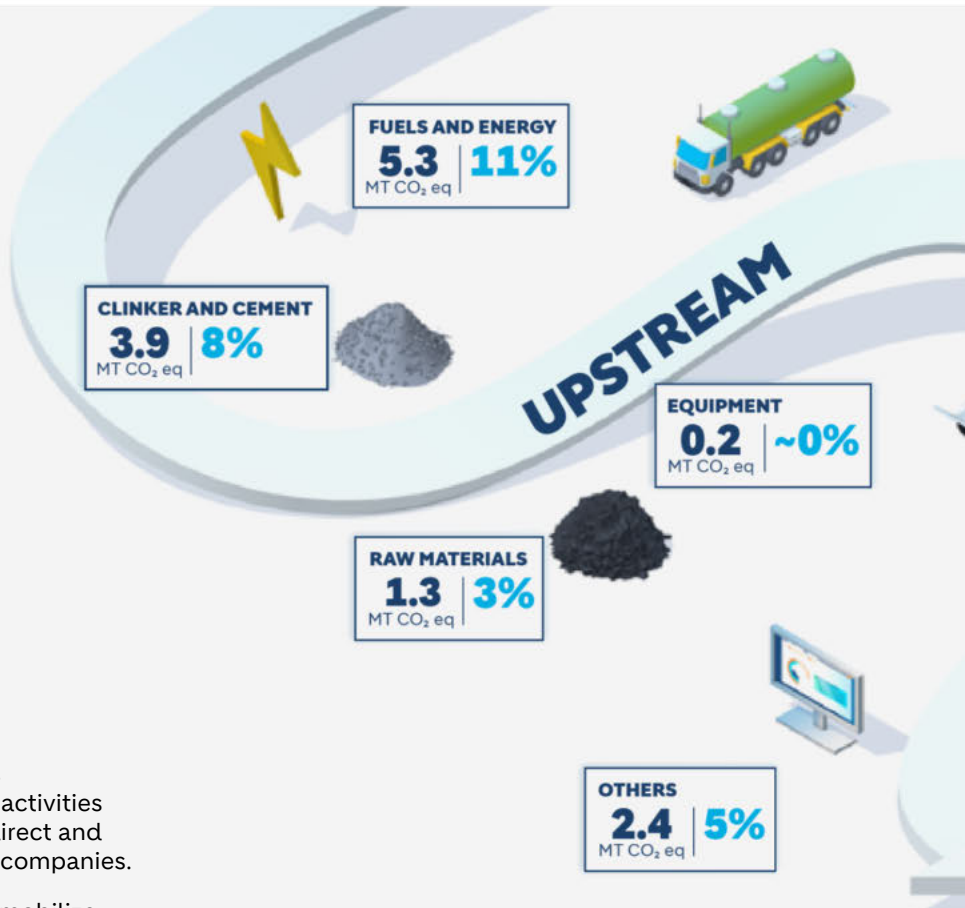
250GWh

Amount of renewable energy to power our operations in Germany each year from 2023

LEADING IN SUSTAINABILITY CONTINUED

HOLCIM'S VALUE CHAIN: SCOPE 3 EMISSIONS

24.0
MT CO₂ eq



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.

Our Scope 3 accounting gives us a basis to mobilize our full organization, driving purchasing decisions to deliver on our decarbonization commitments. It also helps us engage other companies across the value chain in building a net-zero future.

Fuels and energy

“Cradle-to-gate” emissions from purchased fuels and energy account for 11 percent of our total Scope 3 emissions. To reduce emissions in this category, we are replacing traditional fossil fuels with locally sourced, alternative and non-extractive fuels.

Downstream transportation

The CO₂ emissions from transporting our materials to customers, between factories and distribution terminals, account for 11 percent of our total Scope 3 emissions. We are reducing these by optimizing routes and loads, moving volumes from road to waterways or rail, and deploying fleets powered by electricity and more eco-friendly fuels.

Purchased clinker and cement

Purchased clinker and cement account for eight percent of our total Scope 3 emissions. We are introducing a requirement that our clinker and cement suppliers provide the CO₂ information related to their products, for example, through Environmental Product Declarations (EPDs), to accelerate the purchase of low-carbon products.

Investments and joint ventures

We account for Scope 1 and 2 emissions from our principal cement-producing 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%

Other products and services purchased

All other products and services purchased account for approximately 21 percent of our total Scope 3 emissions. We expect reductions from including CO₂ requirements in the tendering process and integrating CO₂ as a parameter in the “Total Cost of Ownership” models used to drive purchasing decisions.

We also expect CO₂ reductions from innovation and partnerships with suppliers of global categories.

**INBOUND
TRANSPORTATION**

1.3 | **3%**
MT CO₂ eq

CHEMICALS

1.0 | **2%**
MT CO₂ eq

**EMMISSIONS FROM JVS AND
NON-CONSOLIDATED
COMPANIES (INVESTMENTS)**

23.1 | **49%**
MT CO₂ eq

**DOWNSTREAM
TRANSPORTATION**

5.4 | **11%**
MT CO₂ eq

**PROCESSING OF
SOLD PRODUCTS**

1.9 | **4%**
MT CO₂ eq

**END OF LIFE TREATMENT
OF SOLD PRODUCTS**

1.4 | **3%**
MT CO₂ eq



23.1
MT CO₂ eq

DOWNSTREAM

47.1
MT CO₂ eq

LEADING IN SUSTAINABILITY CONTINUED

CLIMATE

DECARBONIZING OUR MOBILITY

We are transitioning to low-carbon mobility from quarry to city by adopting more sustainable and efficient transport options, using low-emissions trucks as well as rail and waterways.

Downstream transportation currently accounts for 11 percent 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 the same, we aim to reduce our Scope 3 downstream transportation emissions, per ton of material transported, by 24.3 percent by 2030 compared to 2020.

Decarbonizing our vehicle fleet

We are deploying electric fleets where possible across our operations: from autonomous electric vehicles in quarries, to heavy-duty electric trucks to distribute materials. Our goal is to reach 30 percent of zero-emission heavy-duty truck purchases or contracts by 2030.

We use a range of electric mobility options across aggregates, ready-mix and cement in Europe, North America and Latin America. In Europe, Colombia and Mexico, we are piloting electric ready-mix concrete trucks that can reduce carbon emissions by 60–80 percent “well-to-wheel” compared to conventional models.

Digitalizing to optimize logistics

We are pushing the boundaries of digitalization across our business, starting with transport and logistics. The Transport Analytics Center (TAC) is our proprietary digital technology platform that optimizes load and route efficiency, safety and carbon footprint. It delivers state-of-the-art logistics and record performance with demonstrated sustainability results. TAC is active across 51 countries worldwide. In 2023, it covered 1.23 billion kilometers, with tracking systems in more than 47,000 trucks.



Collaborating to drive industry forward

In 2023, we joined the Smart Freight Centre, a global non-profit organization founded to make the global freight sector more efficient and environmentally sustainable. We are the first construction and building materials company to become a member of the platform under the Global Logistics Emissions Council (GLEC). In collaboration with other industry leaders, we will share best practices and insights into sustainable logistics strategies and work to promote the adoption of low-carbon freight solutions.

Creating demand for emerging clean technologies

Holcim is a founding member of the First Movers Coalition, established in November 2021 at COP26 in Glasgow. This initiative brings together like-minded companies that share a net-zero ambition to use their procurement standards and practices to shift the system towards green solutions. By placing orders for emerging low-carbon technologies, coalition members build the demand needed by suppliers to invest in scaling-up production of new and innovative green technology.

HOLCIM AND VOLVO: ELECTRIC FIRST MOVERS

In May 2023, Holcim announced an agreement with Volvo to deploy up to 1,000 electric trucks by 2030 – Volvo’s largest commercial order for these vehicles. Replacing diesel trucks with electric ones will reduce our CO₂ emissions from road transport by up to 50 percent, and delivery of the first trucks began at the end of 2023.

The agreement is part of a wider partnership between the two companies to deploy electric trucks across Holcim’s European operations from now to 2030.

Holcim and Volvo are both founding members of the First Movers Coalition, a group of companies leveraging their purchasing power to create early markets for innovative clean technologies.

Through such partnerships, companies like ours are leading the shift to sustainable solutions and accelerating green innovation and supply.

12.5%

**Reduction in our Scope 3 emissions
from downstream transportation**
(compared to 2022)

“Partnership is the new leadership. I am very proud of the partnership we have developed with Holcim, and the results we are achieving together to make big CO₂ reductions.”

MARTIN LUNDSTEDT
President and CEO of Volvo Group



Next-generation autonomous electric haulers

Holcim Switzerland is collaborating with Volvo Autonomous Solutions to jointly test and further develop the use of autonomous electric haulers in its operations. Testing is being carried out at Holcim’s Siggenthal quarry in Switzerland, with the vehicles already proving quieter, more sustainable and safer than conventional haulers. When operating at full scale, autonomous electric haulers can reduce quarry CO₂ emissions by up to 85 percent.



Jan Jenisch, Chairman and CEO of Holcim, with Martin Lundstedt, President and CEO of Volvo Group, in front of one of our electric trucks

LEADING IN SUSTAINABILITY CONTINUED

CLIMATE

DRIVING ADVANCED TECHNOLOGIES

We are focusing on advanced technologies as we progress towards net zero, innovating in electrification, hydrogen and carbon capture, utilization and storage (CCUS).

Clean electricity to reduce fossil fuel use

We are exploring the electrification of our processes to decrease our dependency on fossil fuels by substituting them for clean electricity. Complete process electrification could also be part of our carbon capture solution for net-zero cement plants.

While we are examining and testing new technologies to bolster our electrification portfolio, we are also collaborating with global leaders in electricity production to secure clean electricity supply for our projects.

Exploring the potential of hydrogen

Hydrogen is increasingly being explored as an alternative fuel to accelerate the energy transition. At Holcim, we are advancing research and development into the application of hydrogen to help decarbonize the building sector.

Low-carbon hydrogen produced using clean energy has the potential to be an alternative to the fossil fuels powering our transportation and cement kilns. It also enables us to increase the amount of alternative fuels we use, particularly biogenic fuels, which often have lower calorific value or are harder to ignite.

Equally, hydrogen has a role to play in our CCUS strategy. Clean hydrogen can be reacted with captured CO₂ to produce low-carbon fuels or chemicals and plastics.

[→ Read more about CCUS on pages 52–57](#)





Holcim is exploring the use of green hydrogen as an alternative to fossil fuels at our plant in La Malle, France

TRIALING HYDROGEN AS AN ALTERNATIVE FUEL

In 2023, we conducted a milestone hydrogen test at our plant in La Malle, France. The aim of the test was to replace the fossil fuel used to power the cement kiln with hydrogen – a process called fuel switching. At La Malle, we trialed a hydrogen-injection rate of more than 50 percent, with the remaining fuel coming from biogenic sources.

We also tested hydrogen in a process called “boosting”, which involves feeding a small amount of hydrogen (around one percent of total feedstock) into the kiln. This small amount of hydrogen acts as a catalyst to optimize the combustion process and increase the use of alternative and biogenic fuels.

LEADING IN SUSTAINABILITY CONTINUED

CLIMATE

ADVANCING CARBON CAPTURE, UTILIZATION AND STORAGE TECHNOLOGY

Harnessing advanced technologies such as carbon capture, utilization and storage (CCUS) is a game-changer to meet long-term climate goals. Our advanced CCUS roadmap positions us as the right partner to scale up net-zero cement around the world.

Decarbonizing cement production

Decarbonizing cement and concrete is at the core of Holcim's decarbonization journey. To achieve our goal, the first step is to decarbonize our formulations and energy mix (see page 36).

We are decarbonizing our product formulation with low-emission raw materials from calcined clay to construction demolition materials (CDM). At the same time, we are decarbonizing our energy mix using Geocycle alternative fuels, such as biomass, and using renewable electricity generated by wind and solar.

For the remaining CO₂ emissions, we are advancing CCUS technologies to become net-zero.

Using CCUS technologies, we can capture CO₂ emissions before they are released into the atmosphere. The captured CO₂ 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.

CCUS enables us to reduce greenhouse gas emissions from our operations, offering a viable pathway toward global climate goals and the transition to a net-zero economy.

Carbon capture technologies

We are developing and assessing several mature carbon capture technologies for cement production to offer us maximum flexibility across our global footprint. They fall into two categories:

Post-combustion technologies

These solutions capture CO₂ in the exhaust gas of a traditional kiln system. The most advanced use solvents to absorb CO₂, creating a liquid that is sent to a regenerator where concentrated CO₂ can be released. Other post-combustion approaches include CO₂ separation by membranes and adsorption processes.

Integrated processes

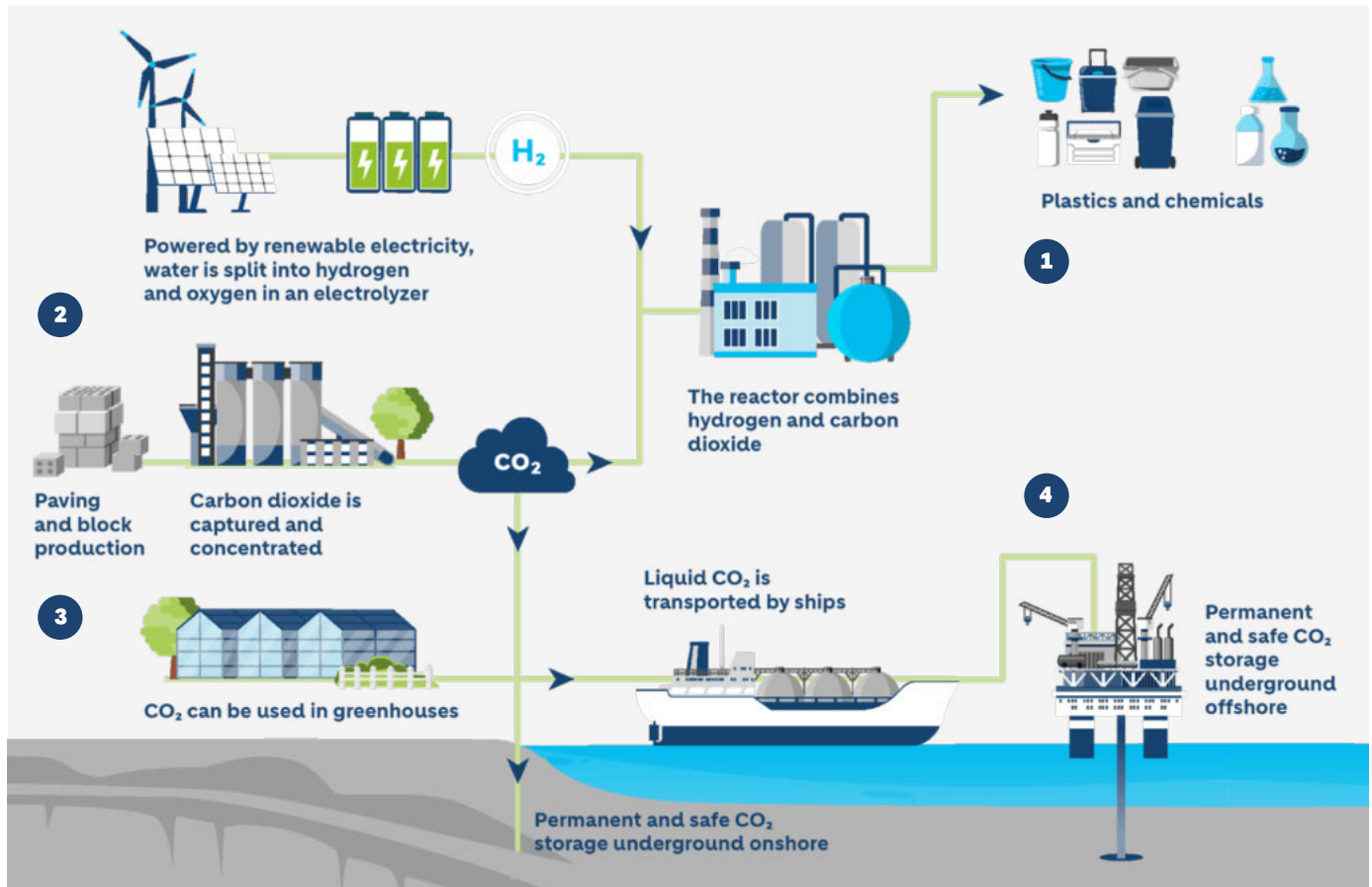
We are also exploring various integrated processes such as oxyfuel, the electrification of clinker manufacturing and the calcination of raw materials. The oxyfuel approach replaces air with oxygen in cement manufacturing, avoiding nitrogen in the system and creating a concentrated CO₂ exhaust stream.



Carbon2Business aims to capture and utilize CO₂ from our plant in Lägerdorf, Germany

HOLCIM'S CCUS PATHWAYS

Our projects span four CCUS pathways.



1 CONVERSION UTILIZATION

CO₂ 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.

2 MINERALIZATION

CO₂ is reacted with minerals to form carbonates, storing the CO₂. In the cement sector, this reaction provides a way of capturing CO₂ as a raw material to produce new building materials.

3 MARKET UTILIZATION

Captured CO₂ 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

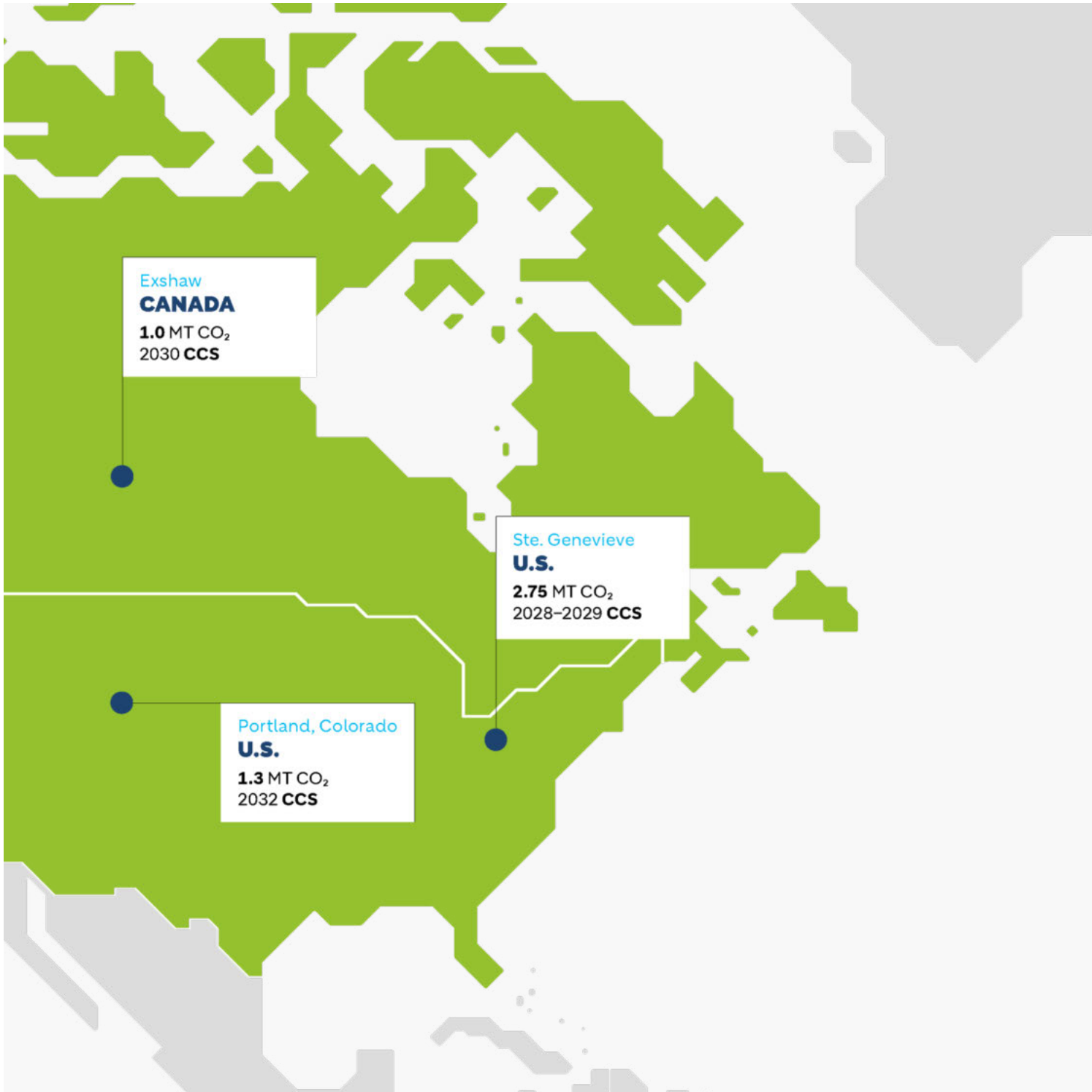
CO₂ is captured from a facility and transported to a location via pipelines, trains, ships or trucks. It is then safely stored underground either onshore or offshore, in abandoned oil and gas reservoirs or dedicated saline aquifers.

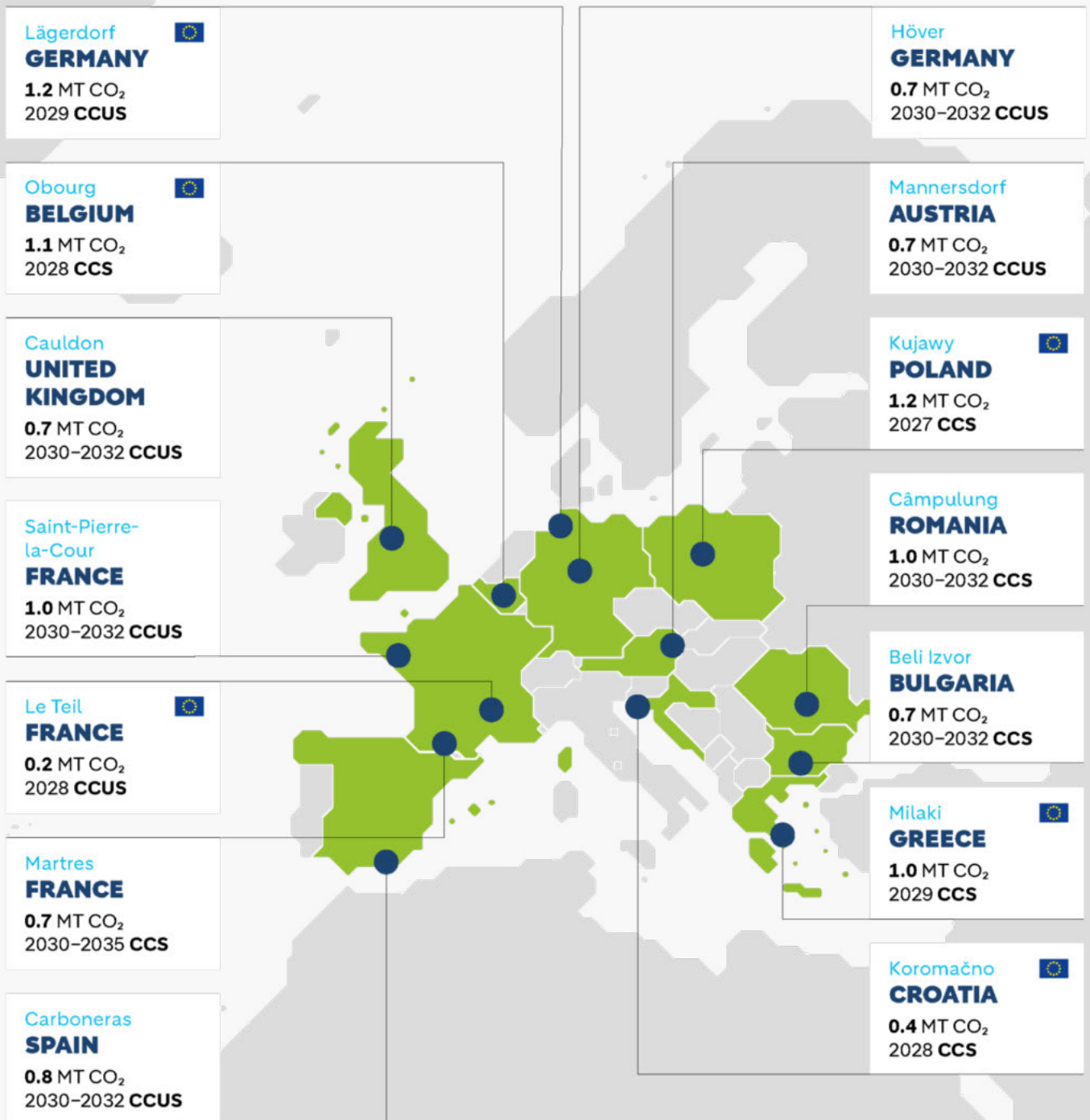
LEADING IN SUSTAINABILITY CONTINUED


OUR AMBITIOUS CCUS ROADMAP

By 2030, we aim to reach significant milestones in our CCUS journey. We have committed to invest CHF 2 billion into CCUS projects, net of public funding, to capture five million tons of CO₂ annually and produce eight million tons of fully decarbonized cement each year.

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





 Selected for grants from the European Union (EU) Innovation Fund

LEADING IN SUSTAINABILITY CONTINUED

Robust partnerships and value chains

Close collaboration among public authorities, private companies, local stakeholders and other value chain partners is essential to secure the development of technologies that will unlock the business case for CCUS and enable a net-zero future.

Several factors impact the value chain including available CO₂ infrastructure, proximity to ports, renewable power and water supply, nearby chemical or plastics industries and the feasibility of on- or offshore CO₂ storage.

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

“CCUS is a game-changer on our journey to net zero. Holcim has the broadest range of projects and technologies to make net-zero cement a reality at scale. By 2030, we aim to offer eight million tons of fully decarbonized cement each year.”

MILJAN GUTOVIC

Region Head Europe and
Chief Executive Officer Designate

Addressing potential impacts of CCUS

Carbon capture and storage will play a key role in Holcim’s journey towards net zero. As such, Holcim is at the forefront of the development of these technologies with the broadest range of projects within the industry.

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

- Energy and water consumption of CCUS installations
- Potential impacts on communities in regards to onshore storage solutions
- Impact on Holcim’s Scope 3 emissions

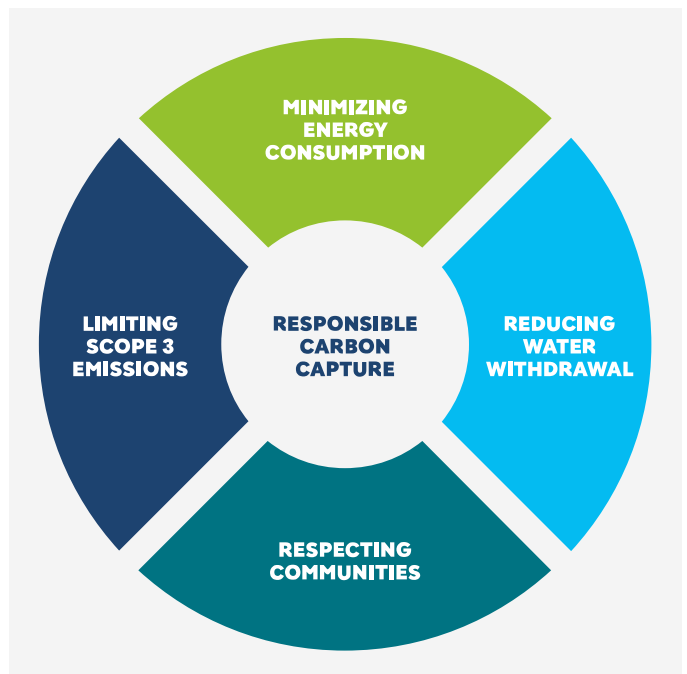
➔ Read about our climate and nature risks and opportunities on page 140

5M

Tons of CO₂ captured annually by 2030 from six CCUS projects selected for EU Innovation Fund grants



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





Carbon2Business - Lägerdorf, Germany

CARBON2BUSINESS

Launched in partnership with Thyssenkrupp Industrial Solutions AG and Linde Engineering, Holcim's Carbon2Business project at our cement plant in Lägerdorf, Germany, aims to capture 1.2 million tons of CO₂ emissions annually.

The captured CO₂ can be processed into e-methanol or as a raw material for industry, to produce plastics, for example. We are developing new value chains and technologies to enable the decarbonization of industrial companies beyond the cement industry, by repurposing unavoidable emissions from the cement sector.

Holcim has concluded long-term supply contracts with green electricity providers and also operates its own wind farm. Schleswig-Holstein offers ideal site conditions for the project: there is more green electricity available than is consumed locally.

For industry to use the CO₂ as a raw material, a pipeline needs to be built, and is being realized with various industry partners. With a capacity of at least 1.2 million tons of CO₂ per year, the pipeline is designed to transport the captured and processed CO₂ safely and economically.

In terms of local benefits, the project aims to attract business to the region and preserve and create jobs.

1.2M

Tons of CO₂ potentially captured annually



GO4ECOPlanet - Kujawy, Poland

GO4ECOPLANET

From 2027, Kujawy cement plant in Poland will operate a unique installation that aims to capture close to 100 percent of Scope 1 CO₂ emissions. Holcim's GO4ECOPlanet project is large-scale, one of the most cutting-edge solutions for the construction industry in Europe.

The CO₂ emissions captured will be transported to CO₂ sequestration storage areas. The carbon capture installation is designed to remove other oxides from flue gas such as NO_x, SO_x and dust, producing 99.9 percent pure CO₂ and with positive impacts on air quality.

Fully powered by low-carbon electricity, the installation aims to eliminate more than 10 million tons of CO₂ over ten years along the supply chain. This includes 400 kilotons of CO₂ related to the transportation process, representing less than five percent of the liquid CO₂ captured over the same period. The plant has the potential to capture 1.2 million tons of CO₂ each year, representing 10 percent of annual emissions in Poland's entire cement sector. It will also contribute to pushing forward the national infrastructure and legislation development to accelerate decarbonization. To minimize its impact, the project will incorporate a closed loop water cooling system to reduce freshwater withdrawals.

An estimated 40 new jobs will be created at Holcim Polska S.A., with around 200 additional positions created in companies along the carbon capture and storage value chain.

1.2M

Tons of CO₂ potentially captured annually

LEADING IN SUSTAINABILITY CONTINUED

SUSTAINABLE CONSTRUCTION: BUILDING BETTER WITH LESS

At Holcim we are building better with less to decarbonize construction. We combine low-carbon building solutions with smart design to use less material, which reduces upfront carbon compared to conventional materials.

Smart design

Buildings account for 37 percent of the world's energy-related CO₂ emissions today, with 10 percent generated at the construction phase and 27 percent linked to buildings in use. The construction phase, known as upfront carbon, plays a key role in decarbonizing building.

We are leveraging our strategic partnerships with leading academic institutions including the Massachusetts Institute of Technology (MIT) under the MIT Climate & Sustainability Consortium, and the Swiss Federal Institute of Technology (ETH) to develop smart design building solutions that aim to significantly reduce upfront carbon.

One of the most effective levers available to reduce upfront carbon is the concept of smart design to build better with less. When the most efficient design is

combined with the correct materials, in the right location of a structure, the result can achieve significant savings in CO₂. A smart design approach in the early stage of projects can reduce mass, which reduces vertical loads, which can reduce mass further. This is known as the “virtuous circle of design improvement”, and embraces the Define, Measure, Analyze, Improve and Control model to achieve the optimal design for a specific structure.

We are embracing novel, “smart design” construction solutions, with systems that can reduce upfront carbon at scale in the built environment. Smart design, plus efficiency gains in the construction phase and concrete industrialization process, will contribute to a 26 percent reduction in our absolute Scope 1 emissions by 2050.

→ Learn more about Holcim's pathway to net zero on page 35



Holcim and ETH contributed to the HiLo (High Performance, Low Emissions) research and innovation unit at NEST (Next Evolution in Sustainable Building Technologies) in Dübendorf, Switzerland

PIXELFRAME

The world builds the equivalent of New York City every month, driven by rising population and urbanization. Over 40 billion tons of virgin materials are extracted from the planet every year in order to build, so making construction circular is essential to staying within our planet's boundaries while we improve living standards for all.

What if we could reuse structural elements to extend the life of buildings by dismantling and rebuilding them multiple times to serve different purposes, so that 50 years of life could become 200?

"PixelFrame" is a system we are collaborating on with Caitlin Mueller, Associate Professor of Civil and Environmental Engineering and Architecture at MIT's Civil and Environmental Department, and her team of world-class researchers. The system harnesses design and computation strategies that give the concrete building elements an optimized geometry which is strengthened through post-tensioning. The system is completely modular and designed for disassembly and reuse several times. This reduces the carbon footprint of the structural system by around 60 percent compared to a conventional reinforced concrete design.

The PixelFrame system separates the reinforcement and concrete components, allowing the Pixel segments to have a longer design and be reused multiple times. Embracing a circular construction approach allows the standardized modules to be reused in flexible configurations. Every time they can be reused reduces the need for new materials and reduces emissions in the system's second life.



RIPPMANN FLOOR SYSTEM

In conventional multi-story buildings, floors account for around 40 percent of the total weight, which means that smartly designed systems that reduce the mass of structural floors can deliver a compounding reduction in embodied emissions.

The Rippmann Floor System® (RFS®) is a lightweight rib-stiffened funicular floor invented by the Block Research Group, led by Dr Philippe Block, Professor of Architecture and Structures at ETH Zurich, and developed by the ETH Zurich spin-off VAULTED AG. Holcim developed a special ECOPact concrete mix for the prefab solution.

The RFS can reduce up to 70 percent of concrete and 90 percent of reinforcement steel by transferring the loads to the supports predominantly through compression. This is achieved through their vaulted geometry, similar to the centuries-old principles used to build the stunning Gothic cathedral ceilings in masonry that still stand today.

More than 6,500m² of Rippmann Floor System® is now being implemented in the CreaTower I project in Zug, Switzerland, using smart design to place the right material, concrete, only where it is structurally needed in the building's floor. Combining the resulting volume reduction with the low-carbon concrete supplied by Holcim, the carbon footprint of the project is significantly reduced.



LEADING IN SUSTAINABILITY CONTINUED

REINVENTING CONCRETE FOR A SUSTAINABLE FUTURE

At Holcim, we are reinventing concrete to make it net-zero. Shifting from volume to value, we are making this vital urban building block low-carbon, circular, energy-efficient, nature-friendly and more.



HIGH-STRENGTH DYNAMAX

DYNAMax, Holcim's ultimate high performance concrete, enables our customers to build better with less. One example is Seven Gardens Oak House in Wiesbaden, Germany. Recognized by the German Sustainable Building Council, the use of DYNAMax ensured high strength, outstanding durability, superior rigidity and a reduced carbon footprint by lowering material demand.

40

Gigapascal (GPa) minimum elastic modulus for rigidity



LOW-CARBON ECOPACT

ECOPact low-carbon concrete delivers 100 percent performance with at least 30 percent lower CO₂ than the market standard. Making low-carbon construction happen at scale it represents 19 percent of our ready-mix sales and is a CHF 1+ billion brand.

30%

Lower CO₂ emissions compared to standard (CEM I) concrete



CIRCULAR ECOCYCLE®

ECOCycle® makes concrete up to 100 percent recyclable, allowing our customers to build new from old and cities from cities. Holcim has 135 recycling centers around the world, and is driving circular construction in every metropolitan area where we operate, recycling construction demolition materials into new building solutions.

135

Recycling centers



WATER-PERMEABLE HYDROMEDIA

Hydromedia permeable concrete allows water to flow through to recharge ground soil, enabling urban forests and gardens. By bringing more nature into cities, we can reduce the heat island effect, improve air quality and optimize water flows to contain flooding, while offering green public spaces for people to enjoy.

500

L/min/m² drainage rate



SMART TECTORPRINT

TectorPrint, Holcim's proprietary 3D concrete printing ink, empowers smart design, using concrete at its best with the minimal amount of material for maximum strength. Achieving strength through geometry, from 3D printing to smart design applications like the Rippmann Floor System®, can reduce material use by up to 50 percent with no compromise in performance.

50%

Reduction in material use



ENERGY-EFFICIENT CONCRETE

Thermal activation in concrete enables buildings to be passive and self-sufficient, accelerating our world's energy transition. This school in Vienna, Campus Aspern Seestadt, generates all its renewable energy onsite from geothermal heat pumps and solar panels. Its concrete slabs are essential for optimizing its energy efficiency.

90%

Of school's energy from geothermal energy optimized by concrete

LEADING IN SUSTAINABILITY CONTINUED

DRIVING CIRCULARITY

Circular construction can accelerate the decarbonization of building, by reducing, reusing and recycling materials across the lifecycle.

CASE STUDY

Striatus: Circular by design

Since the composition of materials used in a building is a major factor in its lifecycle environmental impact, what if you could reduce overall material use by optimizing building size and methods, to ensure minimum material use and maximum strength?

We did precisely this with Striatus, the first-of-its-kind, award-winning 3D-printed concrete bridge that Holcim presented during the 2021 Venice Biennale of Architecture with our partners.

Striatus' digital and circular design showcases concrete at its best. The footbridge holds together solely through compression with no reinforcements, while the structure's concrete blocks are designed to be infinitely disassembled and reused, and can be easily recycled.

This footbridge set a blueprint for future building using advanced technologies from computational design to 3D concrete printing,

In 2023, we took this innovation to the next level with Phoenix (see page 65).



Watch video online here





Striatus, the first-of-its-kind 3D-printed concrete bridge, as installed at the Venice Biennale of Architecture in 2021

LEADING IN SUSTAINABILITY CONTINUED

CIRCULARITY

DRIVING CIRCULARITY TO BUILD NEW FROM OLD

Holcim is driving circular construction in all key metropolitan areas where it operates, recycling construction demolition materials with its ECOCycle® circular technology platform to build new from old.

Scaling up circular construction

At Holcim, we are scaling up circular construction in all metropolitan areas where we operate. In 2023, we recycled 36.3 million tons of materials across our business, from recycling construction demolition materials (CDM) into new building solutions to converting non-recyclable plastics and minerals into new alternative materials. We also take materials at the end of their life, such as biomass and municipal waste, and turn them into alternative energy sources.

Building new from old

In 2023, we recycled 8.4 million tons of CDM, up 24 percent compared to 2022, and are on track to reach our target of 10 million tons by 2025. We currently operate 135 recycling centers with the ambition to raise this to 150 in Europe alone by 2030.

We launched ECOCycle®, our proprietary circular technology platform, to recycle CDM into new building solutions. Using this platform we can recycle from 10 to 100 percent of CDM across a broad range of applications, from decarbonized raw materials in low-carbon cement formulation to aggregates in concrete and fillers in road construction.



CIRCULARITY HIGHLIGHTS 2023

CIRCULAR CONSTRUCTION

8.4M

Tons of CDM recycled

RECYCLING OF CDM

+24%

Compared to 2022

RECOGNIZED LEADERSHIP



'Circularity Lighthouse' award for ECOCycle®

PHOENIX RISES FROM STRIATUS

Building on the innovations of Striatus

Located at Holcim's Innovation Hub in Europe, Phoenix is a first-of-its-kind 3D-printed concrete masonry bridge built with 10 tons of recycled materials.

Completed in 2023, Phoenix represents the evolution of Striatus (see page 62), using aggregates recycled from its predecessor's concrete blocks.

The stunning structure uses an optimized low-carbon formulation that has a 40 percent lower CO₂ footprint compared to the original Striatus, and Phoenix's overall carbon footprint is 25 percent lower.

Together with our partners, we are now exploring how Phoenix could be scaled up to provide more generalized sustainable infrastructure solutions.

Developing a custom concrete ink

Using our proprietary ECOCycle® circular technology, we developed the custom concrete ink for Phoenix, integrating recycled construction demolition materials with a 100 percent recycled ECOPlanet cement.

Circular construction, using computational design and 3D printing, allows for a reduction of up to 50 percent of the materials used with no compromise in performance. Circular by design, Phoenix stands solely through compression without reinforcement, with blocks that can be easily disassembled and recycled.

Partnering to drive innovation

Phoenix is a testament to the importance of advancing partnerships for a low-carbon and circular built environment.

Beyond the core collaboration with Block Research Group at ETH Zurich, Zaha Hadid Architects Computation and Design Group and incremental3D, Phoenix was created with contributions from: AMODIS, DEKRA, Groupe Noel and Bürgin Creations.

The project demonstrates Holcim's commitment to decarbonization: building better with less using low-carbon materials, smart design and 3D printing, as well as driving circular construction to build new from old, using recycled materials and preserving natural resources.

“Phoenix is a significant milestone in technology readiness. It showcases the maturation of integrated design to construction technologies that were initiated with Striatus.”

SHAJAY BHOOSHAN

Head of Computation and Design Group,
Zaha Hadid Architects



Phoenix was built at the Holcim Innovation Center in Lyon by recycling aggregates from the original blocks of Striatus

LEADING IN SUSTAINABILITY CONTINUED

CIRCULAR LIVING

Let's build circular cities together! Holcim is helping to empower them with sustainable buildings, renewable energy, green mobility, recycling centers and nature inside.

At today's rate of resource demand, we are set to consume 2.3 planets by 2040¹. To stay within our planet's boundaries, we need to fundamentally change the way we build. That is why we are going beyond circular construction with a call for action to drive circular living.

Empowering circular cities

With 70 percent of the world's population expected to live in cities by 2050, cities can play a vital role in helping us shift from a linear take-make-waste economy to a circular reduce-regenerate-recycle one. The Circular Cities Hub is a dynamic platform to raise global awareness and fast track the shift to circular living and building.

As part of the Circular Cities Hub, the Circular Cities Barometer measures how fast 30 global cities are transitioning from a linear to a circular economy. The Barometer gives us unique insights into what the most innovative circular cities around the world are doing.

Through solutions such as ECOPact low-carbon concrete we enable smart, sustainable buildings. We contribute to infrastructure enabling green mobility, from metros and railways to bicycle and pedestrian alleys, even roads that can charge electric vehicles.

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

We are helping to drive the transition to renewable energy too, for example with solar-enabling roofs. In partnership with General Electric, we are 3D-printing higher, more powerful wind turbines and, as part of the Blades2Build consortium, recycling the blades at the end of their service lives.

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

Our new proprietary ECOCycle® circular technology platform can recycle from 10 percent to 100 percent of construction demolition materials across a broad range of applications, from decarbonized raw materials in low-carbon cement, through to aggregates and concrete.

“In partnership with Bloomberg Media, Holcim scores global cities on sustainability. Because building smarter and more sustainably goes hand-in-hand with growing local economies, reducing carbon emissions and improving public health.”

MICHAEL R. BLOOMBERG
Founder, Bloomberg LP



¹ World Business Council for Sustainable Development



EUROPE'S LARGEST URBAN REGENERATION PROJECT

Holcim is providing ECOPact low-carbon concrete and Hydromedia permeable concrete for the largest urban regeneration project in Europe. The Ellinikon, located outside of Athens, Greece, will recycle the materials of the city's abandoned international airport and increase the amount of green space per resident in the metropolitan area by 44 percent.

Nearly 28,000 m² of concrete and tarmac from old runways will be reused for benches and paving. One of three airports in the world designed by renowned architect Eero Saarinen, the 1960s terminal hall will be repurposed into an event space.

Holcim's ECOPact will reduce the development's concrete carbon footprint by at least 30 percent, while Hydromedia will enable smart rainwater management. Construction is underway with the first phase of project due to be completed in 2026.

“Environmental protection, sustainable development and the benefits for the country and its citizens are the core pillars on which The Ellinikon is being developed. Our cooperation with Holcim is another pioneering step towards the creation of a future green city.”

DIMITRIS KITSIOS

Chief Infrastructure & Controls Officer
at Lambda Development

6.2M

Square meters of abandoned airport regenerated

44%

Increase in green space in Athens metropolitan area

LEADING IN SUSTAINABILITY CONTINUED

“FROM SEA TO CITY!” SPREADING OUR GO CIRCULAR MESSAGE

With GO CIRCULAR, Team Holcim-PRB is sailing the world with our call to action, to accelerate circular building and living from sea to city.

The Ocean Race is one of the toughest team events in sport and one of the few global climate-positive sports events. It was a challenge that our team eagerly accepted in 2023, joining the regatta to promote circular living from sea to city and building for a net-zero future.

During the race, they gathered scientific data as part of the largest ever marine science program during a sports event, with over four million pieces of data collected.

The Holcim-PRB team collected water and air samples from edges of the world where few people go, and shared it with the World Meteorological Organization.

- They measured microplastic pollution
- Gathered information about the impact of climate change on our oceans
- Collected data to improve global weather forecasting

Above all, The Ocean Race was also a vehicle to mobilize everyone in Holcim, as well as our stakeholders, behind our mission to decarbonize building and GO CIRCULAR.

Taking the message from sea to city, we want to unite people behind our call to action, with Team Holcim-PRB showcasing Holcim’s unstoppable, winning and pioneering spirit.

“It’s a true honor and dream come true for me to sail for Team Holcim-PRB. With GO CIRCULAR, we are fully committed to helping preserve our oceans and planet.”

NICOLAS LUNVEN
Skipper, Team Holcim-PRB

4

Continents visited by GO CIRCULAR in 2023 during The Ocean Race





Team Holcim-PRB kicked off the 2023 edition of The Ocean Race in Alicante, Spain

In September 2023 we welcomed two new skippers, Nicolas Lunven and Rosalin Kuiper, who will take the helm of the 60-foot Open monohull and keep the GO CIRCULAR spirit going with the same passion. With Team Holcim-PRB, they will spread our circularity message through onsite engagements and activations, partnering with relevant organizations to continue making a positive impact on our oceans.

After successfully completing the Retour à La Base, a race that forms part of the IMOCA Globe Series Championship, Nicolas Lunven got one step closer to qualifying Team Holcim-PRB for the Vendée Globe 2024-25. The race boat will continue carrying its message into the world's premiere round-the-world sailing races, Vendée Globe 2024 and The Ocean Race Europe 2025.

“Sailing with a clear purpose to GO CIRCULAR from sea to city means a lot to me. It’s a great opportunity for me to add my voice to our shared vision of a more circular, sustainable and inclusive world.”

ROSALIN KUIPER
Skipper, Team Holcim-PRB



Skippers Nicolas Lunven (second from left) and Rosalin Kuiper (right) visiting the Holcim Innovation Hub in Lyon

LEADING IN SUSTAINABILITY CONTINUED

ADVOCACY & ENGAGEMENT

At Holcim we support public policy frameworks that help us to decarbonize building and build progress for people and the planet.

CASE STUDY

Decarbonizing cities at COP28

At COP28, Holcim engaged with key partners across the building value chain, so we can decarbonize cities faster together. From city mayors and urban planners to engineers, architects and civil society, Holcim stands ready to partner with them to help shape the cities of the future with our sustainable building solutions.

Nature topped our agenda too, as we urged more companies to join us in taking a transparent and measurable approach for a nature-positive future. Holcim's Nature Strategy focuses on preserving biodiversity and bringing more nature into cities.

During COP28, Holcim announced an expanded commitment to circularity as well by joining the Sustainable Markets Initiative's (SMI) Task Force to fast-track the shift to circular construction.

We also won two awards for our global carbon capture leadership. The COP Presidency initiative named us as an "Energy Transition Changemaker" for our Carbon2Business project in Lägerdorf, Germany. The same project was selected as Germany's "outstanding project" in the Mission Innovation Net-Zero Industries Awards.

Read more about our Nature Strategy on pages 124–127 in the 2023 *Integrated Annual Report*



Watch our CSO at COP28 on how Holcim is engaging to decarbonize cities





La Confluence in Namur, Belgium, is built with Holcim Elevate RubberGard™ EPDM, at the junction of the Sambre and Meuse rivers. After half a century of neglect, the area has been reborn into a vibrant space featuring a pedestrian-friendly esplanade, green zones, and a versatile multipurpose building

LEADING IN SUSTAINABILITY CONTINUED

ADVOCACY POSITIONS AND TRANSPARENCY

Holcim is committed to advocating for public policy frameworks anchored in the principles of circular economy, that are fully aligned with the Paris Agreement's objective to limit the temperature increase to 1.5°C, and that enable innovative and competitive green growth.

Our "Strategy 2025 – Accelerating Green Growth" is fully aligned with the objectives of decoupling economic growth from carbon emissions and resource use:

- We take a rigorous science-driven approach to becoming a net-zero company, ensuring that our targets and actions are in line with the 1.5°C framework.
- We put decarbonization at the heart of our industrial and commercial strategy through the deployment, at scale, of advanced technologies such as Carbon Capture Utilization and Storage (CCUS) and the introduction of low-carbon solutions such as ECOPact concrete¹ on construction markets globally.
- We drive circular construction to build better with less (e.g. by recycling CDM in our products and processes, and using innovative technology such as 3D printing that reduces the use of materials by up to 50 percent).
- We develop solutions to make cities greener from foundation to rooftop and empower society with smarter infrastructure.

This journey requires radical collaboration with our entire value chain and with policymakers. In particular, we advocate for regulatory frameworks that:

- Enable the development of reasonable business cases to invest at scale in decarbonized technologies (e.g. competitive access to decarbonized energy, facilitated access to funding, and transparent regulatory frameworks for the use, storage and transportation of unavoidable CO₂ emissions).
- Create market demand for decarbonized and circular solutions (e.g. through harmonized product standards, and public procurement frameworks that drive innovation by being technology and material-neutral, based on building lifecycle performance).

- Enable industry to remain competitive on the global stage (e.g. through an international level playing field on carbon costs, fair state aid rules for energy-intensive sectors and dynamic carbon pricing).

Climate policy positions

Holcim advocates for climate policy positions that enable:

1. Carbon capture, utilization and storage (CCUS)

One decarbonization lever that is fundamental to the sector's transition is CCUS. The regulatory frameworks that are currently being developed will play fundamental roles in enabling the CCUS value chain to become the necessary engine of the low-carbon and circular transition. No single solution will be perfectly scalable everywhere as different environments present different conditions (e.g. technological, geological and legislative) that favor one solution or another. This requires a flexible yet unequivocal regulatory framework:

- Recognizing carbon use as an integral part of the transition to net zero is a necessity, as is avoiding the design of restrictive regulatory frameworks that prevent the scale-up of industrial carbon capture projects. Policies under development (e.g. on synthetic fuels in the EU) cast serious doubts on the future of CO₂ utilization from industrial sources, without any serious impact assessment.
- A dynamic, accessible and competitive value chain for CO₂ transport and storage. Europe must focus on securing accessible infrastructure for carbon capture, transport and storage. The current monopolistic environment threatens the viability of many projects that would otherwise be implemented before 2030 (and which require planning, permitting and financing now).

¹ ECOPact low-carbon concrete offers at least 30 percent lower CO₂ emissions compared to standard local (CEM I) concrete, without offsets

2. Demand for low-carbon products and solutions

Holcim is committed to leading the transition toward low-carbon and circular construction by developing and introducing green products and solutions worldwide. In most cases, introducing them to the market generally requires an adapted product standard and its use must be facilitated by building codes and (public) procurement practices to create market demand.

Integrating sustainability performance in building codes, public procurement and product standards, alongside traditional criteria (safety, performance, durability and affordability) will lead to faster market uptake of low-carbon solutions.

- **Create market demand through a dynamic standardization and public procurement framework.**
Having standards in place and implemented swiftly is fundamental to start building supply-demand momentum in the value chain that can be supported by (public) procurement practices and building codes.
- **Use of harmonized product standards remains the most appropriate approach.**
In Europe, our experience with the cement standard EN 197-6 for the use of recycled concrete fines in cement shows that a non-harmonized approach hampers effectiveness, speed of deployment and cross-country optimization within the single market. All difficulties encountered nowadays to make applicable harmonized standards should be solved in close cooperation with industry as soon as possible, without unnecessary legal complexity or multiplication of regulations.

In the U.S., we fully support the administration's establishment of lower emission standards through Executive Orders such as the Federal Buy Clean Initiative. Our products can help them reach their targets with our industry-leading green building solutions.

Carbon border adjustment mechanism (CBAM)

Fast and watertight implementation is key to its success. A swift implementation of the CBAM will provide the necessary foundations for large-scale investments in the decarbonization of our activities and products across the EU. It requires close collaboration with the sectors concerned to make sure that adequate (existing) standards are used (e.g. on greenhouse gas measurement, monitoring and reporting) and all potential circumvention routes are effectively closed. This process is fundamental to ensuring effective CO₂ cost equalization.

3. Lifecycle performance: a basis for the future of construction

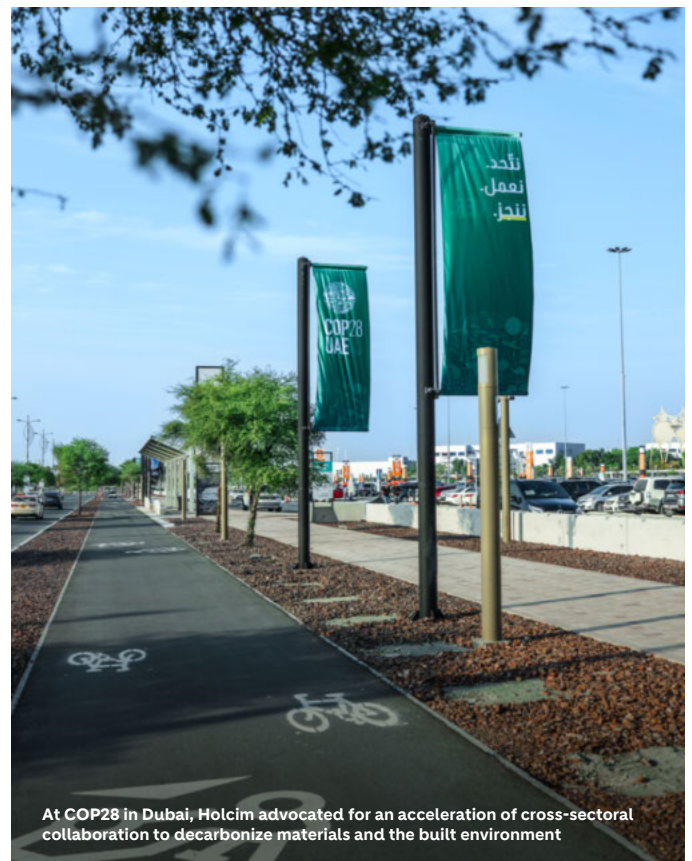
Decarbonizing construction and making the value chain truly circular does not rely on a single technology or sub-sector. All materials and all technologies are part of the solution.

A policy framework and vision is needed that is based on technology neutrality and lifecycle performance. Defining the lifecycle performance that needs to be achieved to be aligned with 1.5°C will lead to a dynamic market based on innovation and performance.

4. Competitive and decarbonized energy

Access to competitive decarbonized energy is a critical enabler for the decarbonization of the industry:

- A well-functioning and interconnected electricity market with access to decarbonized energy at scale and at competitive prices is the cornerstone for the decarbonization of European industry and its short- and long-term competitiveness.
- Investments in renewable energy assets should be facilitated through faster permitting procedures, including for the development of renewable assets in industrial contexts.
- Industry also requires continued access to non-fossil sources of energy such as non-recyclable waste and biomass waste. These resources currently supply a large proportion of the cement sector's fuel needs, allowing it to become less dependent on imported fossil fuels while decarbonizing our processes.



At COP28 in Dubai, Holcim advocated for an acceleration of cross-sectoral collaboration to decarbonize materials and the built environment

LEADING IN SUSTAINABILITY CONTINUED

5. Funding for decarbonized industrial growth

To build strong business cases and ensure the deployment of low-carbon technologies, industry requires access to combined sources of funding. This can be facilitated through:

- A simplified application and approval process to funding sources, allowing transparent and easy access. A shift to direct funding of CCUS for the cement industry can accelerate the construction phase of CCUS projects and, hence, decarbonization in regions such as the U.S. and Europe.
- In Europe, a swift deployment of Carbon Contracts for Difference (CCFDs) at the EU and national level to allow for a de-risking of projects based on access criteria that are simple and fast in execution.

▢ For a review of Holcim's climate policy positions, see [Holcim's Climate Public Policy Positions Report](#)

“We have a huge challenge ahead but we have all the assets in hand. Belgium is going there with Belgian solutions, our industries, offshore wind turbines, [and] Holcim, which wants to make completely carbon-neutral cement.”

ALEXANDER DE CROO

Prime Minister of Belgium

Trade Associations Climate Review

Our commitment to climate-related reporting is transparent and rigorous and we take the same approach in our advocacy positions.

Aligned with our net-zero pledge, Holcim is committed to ensuring that our direct and indirect lobbying through trade associations is aligned with the Paris Agreement and Holcim's positions outlined below.

- Support for the Paris Agreement's climate targets and net-zero agenda
- Support for the use of carbon-pricing mechanisms
- Development of industry roadmap to net-zero by 2050
- Acknowledgement of the need of advanced technologies, including CCUS, to further decarbonize (mainly for cement industry associations)
- Support of need to introduce low-carbon products

We selected the most significant organizations, ensuring a balanced geographical distribution and including global, regional and national organizations. The organizations were assessed by reviewing their public positions using their websites, media releases, publications, social media, questionnaires and, when needed, discussions with the local public affairs teams.



At COP28 in Dubai, Holcim gathered climate circularity leaders at our Goals House event, titled 'Circular cities: Housing for resilient urban communities'



The Circular Explorer is a recycling catamaran, powered by 100 percent renewable energy, on a mission to preserve our ocean, putting the circular economy to work. Built in partnership with One Earth – One Ocean, Circular Explorer recovers plastic from our rivers and oceans, so it can be recycled and reused

We recognize that the journey to net zero requires radical collaboration across our entire value chain and with regulators, investors, NGOs, civil societies and employees. We are committed to working with these stakeholders and our trade associations to accelerate that journey. Where any selected organizations has material misalignment or diverging views with Holcim’s policy positions and cannot be considered to be part of the acceleration to net zero, we commit to dissociate ourself from the trade association and related activities or, in extreme cases, renounce our mandates within the organization and/or our membership.

After our review, we pursued our work with all the organizations included in the scope to close the gaps and push for more alignment with our positions and commitments on climate policies. As a result, seven out of ten organizations that had not developed net-zero roadmaps three years ago, have now issued and published their roadmaps¹. Two organizations that did not formally declare their support for the Paris Agreement have formalized their positions since. Holcim commits to continually assess the climate policy positions of our trade association and memberships on a periodic basis.

Holcim’s public policy positions and its climate advocacy activities are systematically underpinned by the Group SBTi’s 1.5°C roadmap and associated targets, which are externally verified and fully aligned with the Paris Agreement. Review of the climate policy positions of trade associations and industry bodies entails a review of our own policy position and confirms their alignment to the Paris Agreement and net-zero agenda.

¹ Calculation is excluding three associations that are no longer associated with Holcim

LEADING IN SUSTAINABILITY CONTINUED

Mandatory human rights and environmental due diligence

Holcim supports the implementation of regulatory frameworks that require mandatory human rights and environmental due diligence. A common legal requirement, such as that proposed at the EU level, contributes to bringing companies to the same standard. 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-related advocacy in 2023

Throughout 2023, we were actively involved in the work of recognized and leading global organizations on sustainable construction, industrial decarbonization and the decarbonization of the built environment. This includes the World Business Council for Sustainable Development (WBCSD), the World Green Building Council (WGBC), UNIDO's Industrial Deep Decarbonization Initiative (IDDI), the First Movers Coalition (FMC) and the Leadership Group for Industrial Decarbonization (LeadIT). The collaboration with the aforementioned organizations forms the core of our advocacy at a global level, which is anchored wholly on advancing the principles of the circular economy and achieving the Paris Agreement's objective to limit the temperature increase to 1.5°C.

In 2023, as part of its activities to advocate global emissions reductions and the reaching of the Paris Agreement, and the aforementioned climate policy positions, Holcim mobilized its leadership to attend milestone global moments (such as COP28 and Climate Week NYC). Here, we advocated for an acceleration of cross-sectoral collaboration for decarbonizing materials and the built environment, and making cities a global decarbonization lever across all economies, while advancing a nature-positive future. Holcim's calls for action referred above are fully aligned to the Paris Agreement and the net-zero agenda.

In parallel, Holcim is driving decarbonization discussions in Industry Trade Associations such as Cembureau in Europe and Global Cement and Concrete Association (GCCA) at a global level. We are actively engaged in the development of an ambitious climate policy framework globally, at regional levels (e.g. in Europe) and national levels (e.g. in the U.S.).

As outlined in the previous section on public policy enablers, some of the topics that Holcim engages on include regulatory frameworks linked to CCUS, carbon pricing schemes, the development of competitive decarbonized energy networks, and the achievement of common definitions and standards of low-carbon cement and concrete.



Holcim engages on regulatory frameworks linked to Carbon Capture, Utilization and Storage (CCUS)

SUMMARY OF ORGANIZATIONS AND POSITIONS

	Supports Paris Agreement and net-zero agenda	Supports carbon pricing mechanisms	Existence of a net-zero roadmap	Recognizes the need of advanced technologies, including CCUS	Supports introduction of low-carbon and/or net-zero products
WORLDWIDE GCCA	● Yes	● Yes	● Yes	● Yes	● Yes
EU CEMBUREAU	● Yes	● Yes	● Yes	● Yes	● Yes
SWITZERLAND CEMSUISSE	● Yes	● Yes	● Yes	● Yes	● Yes
SWITZERLAND ECONOMIESUISSE	● Yes	● Yes	● No formal roadmap but net-zero commitment to 2050	● Yes	● Yes
UK MPA	● Yes	● Yes	● Yes	● Yes	● Yes
BELGIUM FEBELCEM	● Yes	● Yes	● Yes	● Yes	● Yes
SPAIN OFICEMEN	● Yes	● Yes	● Yes	● Yes	● Yes
FRANCE SFIC	● Yes	● Yes	● Yes	● Yes	● Yes
FRANCE UNICEM	● Yes	● Yes	● Work in progress	● N/A	● Yes
GERMANY VDZ	● Yes	● Yes	● Yes	● Yes	● Yes
POLAND SPC	● Yes	● Yes	● Yes	● Yes	● Yes
AUSTRIA VÖZ	● Yes	● Yes	● Yes	● Yes	● Yes
US NRMCA	● Yes	● Yes	● Yes	● Yes	● Yes
CANADA CAC	● Yes	● Yes	● Yes	● Yes	● Yes
AUSTRALIA CCAA	● Yes	● No formal position given policy context	● Yes	● Yes	● Yes
NEW ZEALAND CONCRETE NZ	● Yes	● Yes	● Yes	● Yes	● Yes
PHILIPPINES CEMAP	● Yes	● No formal position	● No	● No formal position	● Yes

LEADING IN SUSTAINABILITY CONTINUED

JUST TRANSITION

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

We are committed to decarbonization in line with the Just Transition principles. In the absence of a universal framework for a just transition, we have developed a framework to assess the impacts of our journey to net zero on four key stakeholder groups: our people, our suppliers, our communities and our customers.

HOLCIM FRAMEWORK FOR A JUST TRANSITION

The framework is informed by various guidelines and initiatives, beginning with the International Labor Organization's (ILO's) Just Transition guidance, with its focus on workers, as well as the Paris Agreement's focus on communities and stakeholder engagement. We also considered:

- The Just Transition Dialogue Report by the Institute for Human Rights and Business (IHRB) and Wilton Park
- Key stakeholder groups identified as per the London School of Economics' Grantham Research Institute on Climate Change and the Environment in their 'Translating just transition ambitions into investor action' policy report
- Just Transition indicators presented by the World Benchmarking Alliance's Just Transition Methodology, considering ISO 26000 and United Nations Guiding Principles on Business and Human Rights

In 2023, we embedded the principals of our Just Transition framework into our Climate Policy and will continue to further integrate it into our climate strategy as external guidelines advance.



Planting mangroves with communities at the Holcim plant in Cilacap, Indonesia

Our people

We are committed to creating a high-performance culture of empowerment, lifelong learning and development. We aim for all employees to develop their skills in a way that helps us achieve our green growth ambitions while they continue to thrive.

Employment in cement production will continue and the embedded skills of our workforce will continue to be of significant value in reaching net zero. We anticipate expanding roles in replacing limestone with innovative mineral components such as calcined clay, or construction demolition materials (CDM), as well as the pre- and co-processing of materials at end of life for fuels and alternative raw materials.

We also expect our carbon capture, utilization and storage (CCUS) commitments, which involve investing CHF 2 billion and capturing over five million tons of CO₂ annually by 2030, to create high-value opportunities for our workforce. We have identified 17 flagship projects, with each one well positioned to become a net-zero cement plant.

Our suppliers

Our supply chain will change as a result of our transition to net zero. For example, our needs for raw materials will shift toward alternatives such as CDM. We will also expand into new business lines, such as roofing and insulation. We remain committed to a just transition for all the suppliers we work with. This commitment is framed across three main pillars:

- Respecting human rights: by actively monitoring and verifying compliance with our Supplier Code of Conduct and carrying out due diligence, according to our Human Rights Directive, in every market where we operate to identify, prevent and address human rights breaches.
- Promoting health and safety: We take a systematic approach to health and safety management within our supply chain, verifying compliance with applicable standards and regulations. Suppliers and contractors are selected based on their demonstrated qualifications in these areas. Ongoing training and performance monitoring enables effective management of health, safety and well-being.
- Collaborating with suppliers: We partner with key suppliers to decarbonize our supply chain. We enable multi-stakeholder platforms to accelerate the adoption of decarbonized technologies, such as electric trucks.



We are committed to creating a high-performance culture where our employees can continue to thrive

LEADING IN SUSTAINABILITY CONTINUED

Our customers

We are at the forefront of decarbonizing building throughout its lifecycle to ensure a net-zero future, building progress for people and the planet.

Building better with less

With our world’s rising population and urbanization, Holcim is building better with less to improve living standards for all and build a net-zero future.

The key to decarbonizing construction is developing low-carbon materials and using smart design.

Since concrete is versatile, resilient and infinitely recyclable, we are continually innovating to make low-carbon concrete the building material for a net-zero future. Our ECOPact concrete offers significant CO₂ reductions without compromising on performance and is available in 31 markets.

Decarbonizing cities

Holcim solutions help decarbonize cities, from flooring and insulation to advanced mortars and green retrofitting. We are becoming a global leader in roofing with systems spanning cool, green and solar-enabling roofs.



Did you know?

3D construction printing offers four key benefits: automation, speed, sustainability and design freedom. We are using smart design with 3D printing to build better with less, reducing materials by up to 50 percent. With 3D printing, we are creating high value, technologically advanced jobs that are replacing some traditional construction roles.

This automation is helping to mitigate critical labor shortages in mature markets such as Europe and North America. Technology advancements with 3D printing will ensure the construction industry can attract and retain the talent required to lead decarbonizing building across the value chain.

The speed of 3D printing is key to solving critical infrastructure shortages, such as the lack of adequate housing and infrastructure for 1.6 billion people in the world today. These problems are most acute in emerging markets.



The Mvule Gardens complex of 50 houses is using 3D printing to deliver affordable, climate-resilient homes in Kenya

Our communities

At Holcim, we are on our journey to promote sustainable development through innovative building materials and solutions. We remain fully committed to creating a positive social impact in the communities where we operate.

Addressing the vital need for housing

Approximately 2.8 billion people experience some form of housing inadequacy. We partner with communities and governments around the world to address this pressing issue, which is expected to become more urgent as a consequence of climate change.

Our experts develop innovative low-carbon solutions that bridge the gap in affordable housing and infrastructure.

We partner with organizations who share our goal of building affordable housing, such as Habitat for Humanity. We are a founding member of the Roof Over Our Heads campaign, which aims to improve the lives of two billion climate-vulnerable people living in informal settlements by 2050.

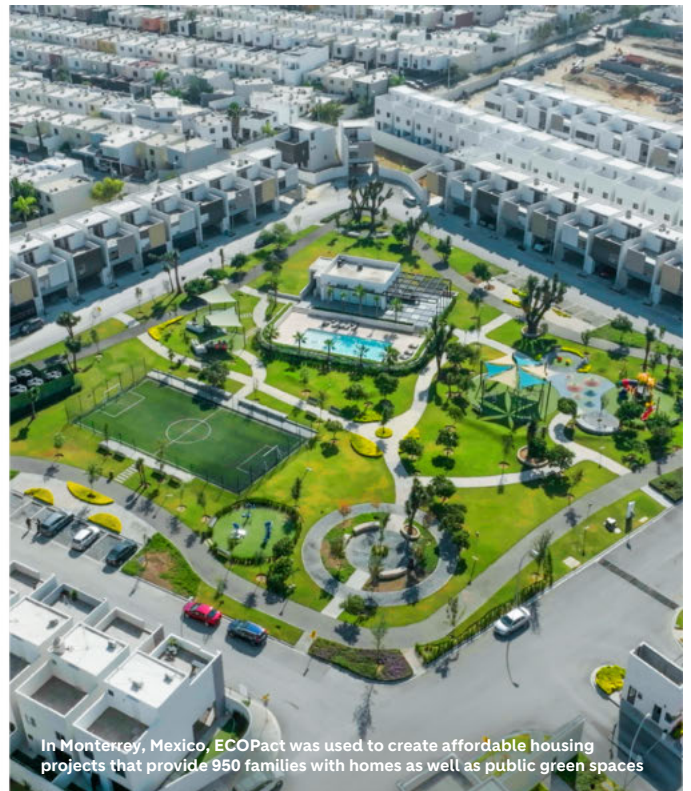
“Partnering with Holcim channels market power and digitalization to improve living standards for those most in need. This partnership highlights the critical role that private sector partners like Holcim can play in increasing access to affordable housing for low-income families.”

JONATHAN RECKFORD

CEO, Habitat for Humanity International



Casa Laguna, the largest affordable housing project in Ecuador to date, used ECOPact for a 3,500 unit housing development



In Monterrey, Mexico, ECOPact was used to create affordable housing projects that provide 950 families with homes as well as public green spaces

LEADING IN SUSTAINABILITY CONTINUED

HOLCIM FOUNDATION FOR SUSTAINABLE CONSTRUCTION

By empowering a community of changemakers, we can accelerate sustainable construction

The Holcim Foundation for Sustainable Construction drives impact in the built environment by supporting and connecting the next generation of industry innovators. In 2023, the Foundation expanded its international Holcim Awards competition for design professionals and launched new initiatives to support knowledge transfer among students and emerging talents.

Holcim Awards 2023

The world's most significant competition for sustainable construction became bi-annual in 2023 and attracted 2,380 registrations of interest from 114 countries. Of the 500 submissions, five regional independent juries selected 20 winning projects that underscore the breadth of diverse and innovative real-world approaches to transforming the built environment. A prize pool of USD 1 million was awarded to winning projects in 17 countries.

These projects exemplify the growing global effort to provide holistic design and construction responses that advance multiple aspects of sustainable development. Supported by renowned architects from across the globe, the hybrid awards ceremony was held during the Biennale of Architecture in Venice, attracting over 3,700 participants.

“Before, I was seen as a nice young man from Africa building schools. After winning a Holcim Award, people started to call me a designer and it paved the way for my career.”

DIÉBÉDO FRANCIS KÉRÉ

Founder, Kéré Architecture, Germany
Laureate of the Pritzker Architecture Prize



Diébédo Francis Kéré addressing winners of the Holcim Awards 2023 at the Venice Biennale of Architecture



Mary C. Boyce, Provost of Columbia University, addressing Holcim Foundation Impact Summit participants in New York

Supporting next-generation industry leaders

In 2023, the Holcim Foundation reinforced its commitment to supporting the next generation of architects, engineers and urban planners by launching its Next Generation Ambassadors program.

The inaugural group of bright young minds launched two community building projects in Tanzania and Indonesia, engaging with local NGO partners and over 50 students from a selection of partner universities to enable hands-on sustainable construction.

In Argentina and Brazil, beneficiaries of the Foundation’s Research in Practice Grants produced promotional materials for their research. This included a book on ocean energy infrastructure and a documentary entitled ‘Life on the Amazon Waters’. Their aim is to develop a deeper understanding of local construction processes and issues related to sustainability and housing.

Sounding Boards engage young innovators

One of the Foundation’s core goals is to connect innovative thinkers from different disciplines to drive impactful actions that can transform the built environment. Two new event formats were created to break down silos and accelerate the implementation of existing solutions.

Sounding Boards, held in Zurich, Rotterdam and Berlin, gave young innovators the opportunity to discuss their ideas with industry-leading peers. The Impact Summit, held at Columbia University in New York, brought together key players across the construction and real estate value chains, to drive collective action to reduce embodied carbon in buildings at a faster pace. The summit resulted in an industry-first alignment between nonprofits, which drafted a common framework for embodied carbon reporting for U.S. real estate professionals.

➤ Visit holcimfoundation.org for more information



Student and community workshop to select the design for a maternity clinic extension in Tanzania

“A holistic paradigm of sustainability must encompass carbon cost, community, culture, and collaboration.”

Next Generation Ambassadors Manifesto

EMPLOYEE- RELATED ISSUES

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PEOPLE

HOLCIM PEOPLE

2023 was a year of transformation for everyone at Holcim, from our senior leaders to the next generation of change makers.

We are committed to creating a high-performance culture with more than 500 P&L leaders driving a customer-centric decision-making process, based on empowerment, lifelong learning and development. A diverse and inclusive culture where everyone can develop the skills they need to thrive. With 63,448 Holcim people working worldwide, we are driven to realize our full potential and at the same time make a positive difference to the world. From senior leaders to the next generation of change makers, in 2023, we accelerated our transformation.

People strategy for green growth

In 2023, we continued to focus on making Holcim a best place to work and empowering employees to achieve our green growth ambition. Efforts are now underway to establish the common threads of the Holcim experience to meet the needs and expectations of our people.

Built upon our decentralized business model, our approach empowers individual countries to cultivate practices that strike a harmonious balance between equitable treatment of our workforce and the demands of our operations, customers and communities. This commitment is stated in our Group Human Resources Policy, where it reinforces our commitment to put our employees at the center of what we do.

Our policy is adaptable to align with local regulations while upholding its fundamental principles of fairness, respect, and the safeguarding of human rights and eliminating child labor. If need be, we refine the policy to comply with local laws but preserve its essence.

Upholding our Code of Business Conduct

In cases where there is a breach of our Code of Business Conduct (CoBC), thorough investigations are conducted as outlined in our compliance directives. If substantiated, disciplinary measures against employees engaged in misconduct may be implemented.

Developing leadership at all levels

At Holcim, we ensure that all our employees are encouraged to thrive and grow in their roles.

This starts with empowering our young talent to make a difference. The Early Career Leadership Program is a comprehensive leadership development initiative to equip next-generation leaders with the tools, knowledge, skills and experiences they need to become effective leaders.

Spanning a six-month period, the program offers participants a unique opportunity to receive coaching, engage in hands-on learning through project work focusing on sustainability, increase their exposure to senior management and more. By the end of 2023, 514 early career leaders had completed the program.

Our colleagues in more senior roles continue their professional development in the Business School for Emerging Leaders, Advanced Leaders and Senior Leaders.



Our top young talents came together at the One Young World (OYW) Summit 2023 in Belfast to drive positive change

Holcim's got talent ... at One Young World Summit 2023

In 2023, Holcim delegates gathered at the One Young World (OYW) Summit in Belfast, UK, to give visibility to sustainable and affordable housing under the slogan #BuildingForPeace. Representing over 190 countries and more than 250 organizations, young leaders came together to accelerate social impact.

To demonstrate a solution to the challenges faced by displaced people, we showcased our Essential Homes Research Project, developed with the Norman Foster Foundation, at our booth, during an onstage session, and in workshops.

We also support OYW's Lead2030 initiative, which funds and accelerates solutions to the Sustainable Development Goals (SDGs). Our partnership with OYW empowers our young people with a once-in-a lifetime opportunity to get inspired to make positive change, develop leadership skills, grow their global networks and build the company they want to work for.

Our OYW ambassadors carried on this transformational spirit by creating a grassroots movement within Holcim: the I'M-Possible Movement. Today, the movement has almost 400 members from 36 countries, helping to build the company they want to work for.



HOLCIM GLOBAL LEADERSHIP PROGRAMS

SENIOR LEADERS BUSINESS SCHOOL	Driving strategy execution	On-site 3 days	200 participants in a fixed group	Total 1,209 leaders
ADVANCED LEADERS BUSINESS SCHOOL	Preparing the organization's senior leadership	Live-Online 5 sessions	62 completed by end of 2023	
EMERGING LEADERS BUSINESS SCHOOL	Nurturing leaders to lead the way in accelerating growth	Live-Online 4-month journey	433 completed by end of 2023	
EARLY CAREER LEADERSHIP PROGRAM	Building the next generation of leaders	Live-Online 6-month journey	514 completed by end of 2023	

LEADING IN SUSTAINABILITY CONTINUED

Democratizing learning

At Holcim, we believe that learning new skills should be available to everyone, and primarily driven by each individual employee. Our vast online library Percipio is freely accessible to all employees, providing just-in-time learning and performance support. Newly introduced, GoFluent is a state-of-the-art language learning tool.

Based on enthusiastic feedback from our Early Career Leaders, we have introduced the opportunity for individual coaching across many levels of the organization. Already, around 1,500 people from over 50 countries have received 1:1 coaching from a professional.

Driving performance through engagement

We want to inspire all of our colleagues to build progress for people and the planet. To achieve this, we conducted a global employee survey in 2023 for a second consecutive year. Over 56,000 employees shared their voice, a strong participation rate close to 90 percent that shows the strength of our company.

Since the previous survey in 2022, engagement has increased significantly – up from 3.73 to 3.92 out of 5, representing 78 percent of engaged employees - with Holcim rated higher on every question compared to last year. This positions us among the top quartile of companies that achieved an improvement.

Colleagues reconfirmed that what they value most is the opportunity to do their best every day at work, with clear expectations, the right materials and equipment and a connection to the company's purpose. They appreciate that they work in a respectful, safe environment.

Empowering our people to voice their views gives us a solid foundation to drive meaningful action and build a great workplace with the involvement of everybody. Our priority is to continue to foster best leadership practices across Holcim, developing a strong culture of recognition and effective conversations on individual progress and growth on a continuous basis. Another employee survey is scheduled in 18 months.

Developing our senior leadership

We brought our top 200 leaders to Washington, D.C., for our annual Senior Leaders Meeting. Kicked off by Chairman and CEO Jan Jenisch and attended by the entire Group Executive Committee, the meeting was an immersive opportunity to focus and mobilize our global team spirit on advancing our "Strategy 2025 – Accelerating Green Growth".



Globally committed to diversity

One of our strategic priorities is to foster a diverse and innovative workforce, with the aim of having women occupy 25 percent of senior management roles. The share of women in senior management increased from 18 percent in 2022 to 21 percent in 2023.

In recognition of our focus to progress with gender, generation and broader diversity and inclusion, Holcim was once again named one of Forbes' Top Female-Friendly Companies, while Fast Company named Holcim one of the Best Workplaces for Innovators 2023.

Local country operations successfully progressed with the implementation of dedicated recruitment efforts for diverse and early career talent through internships, as well as establishing employee resource groups and programs such as Women on Wheels.

While local teams are compliant with regards to their applicable gender pay equity regulations, we continued with our second global assessment using a recognized statistical regression analysis model. We monitor progress on a yearly basis to ensure equal pay for equal work and performance – not only between women and men, but also irrespective of ethnic origin, age, religion, ideology, sexual orientation or factors such as physical disability.

We also participate in yearly certification processes with external vendors that benchmark our strategic plans, human resources processes and diversity, equity, and inclusion (DEI) initiatives against other top employers and industries. These certifications are a positive signifier for prospective employees and help us, as an organization, to align, amend and verify how effective our processes and programs are. Through these assessments, we have already been able to identify areas for improvement and received validation for areas where we are ahead of the curve. Among these certifications are Top Employer and EDGE, which we have been awarded in various locations, including Switzerland, Poland, Spain, Colombia and several others.



WOMEN ON WHEELS

Women on Wheels started off as a pilot in Uganda in 2018 and rolled out as a global initiative in 2021. By the end of 2023, more than 15 countries deployed this program to improve the lives of women and their families. The program encourages women to become truck drivers and provides them with training. The idea was born out of a global truck driver shortage, which affected Holcim's ability to transport its products. Training women as truck drivers not only addresses this issue, it also promotes greater female participation in the transport sector, where women are greatly underrepresented.

Our Women on Wheels are trailblazers in their communities and the industry, actively working on breaking down stereotypes and biases. In more conservative societies, in particular, these women are changing perceptions by showing that women can drive trucks and thrive in the world of work. In 2023, Holcim Ecuador won a Gold Effie award in the Corporate Reputation category for the program, and other organizations have expressed interest in it.

GROWING AND THRIVING

Lean In Circles, pioneered by Sheryl Sandberg's Lean In Foundation, are small groups empowered by women that meet regularly to provide a supportive network for women to learn and grow together. This grassroots program at Holcim is supported by senior leaders. After the first cohort of 40 Circles with 300 female employees in 32 countries, more than 87 percent of those who took part said the sessions had a positive impact on their lives. In the near future, we will extend the program to all countries where we operate and to other diverse groups of employees.

“With Lean In Circles, we are creating a mentoring culture, celebrating each other's wins and supporting gender diversity at all management levels.”

CARMEN DÍAZ CANABAL
CEO Holcim Spain

21%

Female senior managers in 2023 (+3% versus 2022)

15

Countries have run Women on Wheels programs



SUPPORTING ARGENTINA’S WOMEN IN CONSTRUCTION

Informal studies in Argentina suggest that women make up only five percent of the workforce in the construction sector. We launched the ConstruActoras (Women in Construction) initiative to draw attention to this issue and promote gender diversity.

The initiative was divided into three stages, the first of which was a webinar exercise to shed light on real stories from women in construction and inspire action. Over 200 women took part in these discussions.

Stage two was a hackathon where women were invited to come together and generate projects and ideas that seek to make the construction sector more inclusive. This resulted in 26 projects, two of which received funding for their implementation.

The first winning project was selected by a jury and the award went to Lola Mora for the project De Construyendo in Rosario, which proposed a theoretical and practical training program for women and minorities.

The second project was selected by the public, and the award went to Casa Mamá Construye in Buenos Aires, which proposed a dedicated space for teaching construction-related trades and giving training to vulnerable people so that they can learn by doing.

In 2023, we continued the ConstruActoras initiative by carrying out a study on women in construction – the first of its kind in Argentina – to promote inclusion in this industry. In 2024, we plan to start involving our partners in the initiative to involve more women.

Commitment to road safety

In our journey towards zero harm on the road, Holcim has continued to improve its road safety performance and completed more than 91 percent of kilometers driven by our own and partner vehicles in full compliance with our program. The program focuses on in-cab driver training, in-vehicle monitoring of the driver and performance feedback and coaching.

Our new DriveSuccess workshops, which aligned all the logistics stakeholders on shared goals, were launched in five countries. They engaged over 1,800 drivers, 70 transporters and nearly 60 senior leaders across five countries. During UN Road Safety Week, we campaigned for safe following distances in 34 countries, reaching over 16,000 drivers.

“DriveSuccess is designed to engage our drivers and transporters, and enable country leadership teams to take action and promote positive reinforcement. Our plan is to replicate these workshops in every country in 2024 to further our Road Safety Program.”

JEFFREY GIESSE

Group Head of Health, Safety & Environment



Road safety simulator training in Algeria

1,800

Drivers reached through DriveSuccess workshops

+870

Female drivers globally in 2023 compared with 2022

HEALTH, SAFETY & ENVIRONMENT

In 2023, the three pillars of our Health, Safety & Environment (HSE) operating model evolved into a foundational strength that is shaping our performance and organizational culture.

In 2023, the synergy among the three core elements of our HSE operating model has evolved into a foundational strength shaping our performance and organizational culture. We focused our approach by conducting successful HSE projects in every country, proving through on-the-ground implementation that “zero is possible”.

HSE are core values at Holcim. In 2023, our Lost Time Injury Frequency Rate (LTIFR) dropped 19 percent to reach 0.43, with 98 percent of our sites and 48 percent of our countries reporting no lost-time injuries (LTIs). This reduction correlates to the strong engagement of our workforce with Holcim’s Boots on the Ground program.

Aiming for a zero harm business

We deeply regret that two incidents in 2023 resulted in the tragic loss of two employees’ lives. Each of these cases was thoroughly investigated, and remedial actions were implemented to prevent reoccurrence. In such circumstances, our top priority is to support the needs of families and colleagues affected. For us as a company, it is a renewed call to keep ensuring and improving a safe, healthy work environment for our people and partners, so that everyone who works for us makes it home safely every day. We will not rest until we reach zero.

In 2023, we set out to prove that zero environmental impact is possible, by implementing water, internal waste and energy reduction projects. Our operations responded positively, by planning and executing 188 projects worldwide to reduce power emissions and consumption, enhance water recycling, and increase internal waste recycling and diversion from landfills in every Holcim country. This initiative is accelerating the overall improvement versus last year on waste (47,000 tons diverted from landfills, up seven percent from the previous year), water (recycling 610,000 cubic meters) and energy (emissions in Scope 2 reduced by 45,000 tons of CO₂).

We improved our environmental performance, reducing dust emissions by 13 percent and SO₂ by five percent. We reduced dust emissions per ton of clinker by 10 percent, to 64 g/t, surpassing our 2030 target of 75 g/t, as well as meeting our 2030 SO₂ target of 230 g/t.

As part of our overall governance, we have completed 68 comprehensive HSE audits. In addition, we have implemented new rules to simplify and reinforce our minimum expected behavior and a new policy to align to our HSE Operating Model.

Our three-pillar HSE Operating Model

- Critical risk management: prioritizing the most important HSE risks
- Workforce engagement: involving all employees in promoting HSE
- Continuous improvement: driving long-term HSE performance improvements

Critical risk management

In 2021, we launched Critical Control Management (CCM) to simplify and focus our approach to reduce critical incidents. The program covers 49 critical controls across HSE topics and requires verification on a quarterly basis in all our sites.

We have achieved a nine percent improvement in the performance of the program since 2022, driven by thorough action planning and resource allocation in all countries. As of 2023, we have completed 70,000 verifications of critical controls and resolved 14,000 actions, 10 percent more than in 2022.

We continue to reinforce the program through coaching tracked in our Boots on the Ground application and training for our site leadership teams – adding up to 128,000 coaching interactions.

Our task force of Group HSE experts continued CCM compliance audits in 20 countries in 2023 to ensure quality of verifications and action plan implementation.

Algeria goes for ZERO

Algeria has opted to embrace the ZERO environmental impact challenge, by implementing nine projects on five sites to address internal waste (400 tons diverted from landfill), water (10,000 m³ of water recycled), and energy (with 366 MWh produced by solar).

Workforce engagement

Boots on the Ground, our workforce engagement program is part of Holcim's DNA. Our dedicated mobile application reinforces frontline supervisors accountability, supports team-based collaboration and enables transparent tracking of workplace improvements. The program and the launch of our improved digital application was highlighted during the 2023 Senior Leaders meeting.

The impact of Boots on the Ground is incontestable and helped drive a reduction in injuries and accelerate a positive cultural shift. Our digital approach to workforce engagement has been selected as a 2023 Innovation Award Runner-up from the National Safety Council, a well-recognized HSE institution from North America.

Together, 15,000 supervisors and managers have spent more than four million hours in the field, more than 1.9 percent of total hours worked, on HSE activities. Boots on the Ground's gamified approach to workforce engagement has resulted in 650,000 field interactions recorded and 200,000 improvement actions closed in 2023.

Our second annual Global Rewards & Recognition celebrated its very first Country Gold Award for Colombia, with five Silver Country awards, and 47 unit awards for HSE Excellence in operations.

Continuous improvement

We further expanded our global reporting platform iCare to enable future use of Artificial Intelligence, and deployed new sets of user-centric real-time dashboards. Over 35,000 actions are created each month, in relation to audit findings, critical control verifications, process safety, environmental assessments, incidents, identified hazards and HSE coaching sessions – with a large majority coming from the Boots on the Ground application.

The POWER program focuses on the top 10 opportunities to increase energy efficiency and green sourcing to reduce Scope 2 CO₂ emissions. Launched in 2022, this year we have identified 155 new projects with savings estimated at 91 tons of CO₂.

In 2023, Holcim invested CHF 102 million in HSE improvement projects.

-19%

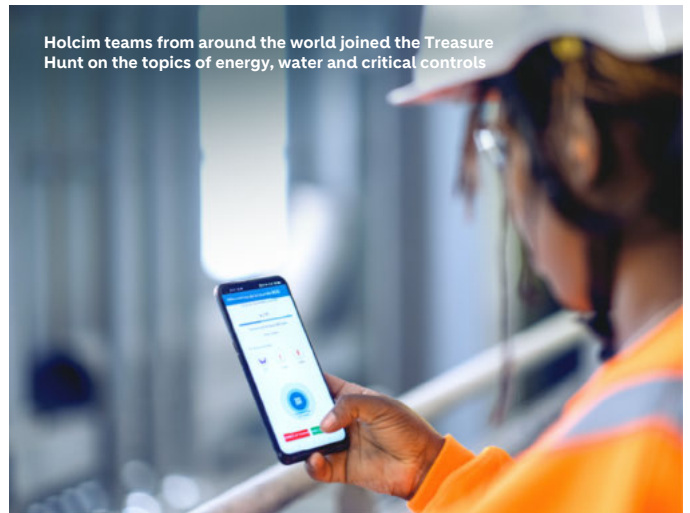
Reduction in lost-time injury frequency rate to 0.43

HUNT FOR TREASURE AND SAVE ENERGY!

In 2022, we launched a powerful digital initiative inside our Boots on the Ground application – the Treasure Hunt. Designed to educate and bring teams together to learn and implement energy-saving opportunities, it led to 51 kilotons of Scope 2 CO₂ being removed. Leveraging this success, we enhanced the application and expanded the initiatives to cover an improved energy savings hunt, water conservation and critical risks related to health and safety.

Participation increased by 32 percent with 6,600 employees joining the competition in 1,700 teams. As a result, 30 kilotons of CO₂ were eliminated, saving CHF 5.3 million and 920,000 m³ of water, and 3,400 potential serious injuries were avoided. Winning teams are recognized during the annual Global HSE Excellence Awards.

Holcim teams from around the world joined the Treasure Hunt on the topics of energy, water and critical controls



98%

Of our sites with no lost-time injuries

SOCIAL ISSUES AND RESPECT FOR HUMAN RIGHTS

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in relation to minerals and metals from conflict-
affected areas and child labor

HUMAN RIGHTS AND OUR COMMUNITIES

At Holcim we are committed to respecting and promoting human rights, and to creating a positive social impact in the communities where we operate.

Contributing to resilient living

We are building progress for people and the planet by upholding the highest human rights standards and spearheading a wide range of social initiatives. Upholding human rights is a cornerstone of our People Strategy, which also focuses on our legacy of positive social impact, with more than CHF 190 million in social investment over the last six years.

In 2023, we invested CHF 24.8 million in social development programs globally, accelerating access to adequate housing and infrastructure – where we contributed CHF 7 million in 2023 – and in continued support to communities, from health and education to skills development.

Upholding human rights

Human rights are universal rights that allow people to live in dignity, freedom, equality, justice and peace. As a Group, Holcim is committed to upholding and promoting human and labor rights in all our operations, business activities, business relationships and in the communities where we work.

Our human rights journey

Holcim has a legacy of working to uphold human rights in our business activities. One of the early landmarks came in 2003 when we joined the UN Global Compact, with its key principles and reporting requirements.

2003

Joined the UN Global Compact and commit to respect human rights

2006

First reporting on human rights commitments and performance

2011

Risk-based Human Rights Approach developed, aligned with the UN Guiding Principles on Business and Human Rights

First Human Rights impact Assessments

2013

Further implementation of Human Rights Management System; six Human Rights Impact Assessments and action plans carried out

2004

First Code of Business Conduct including human rights

2007

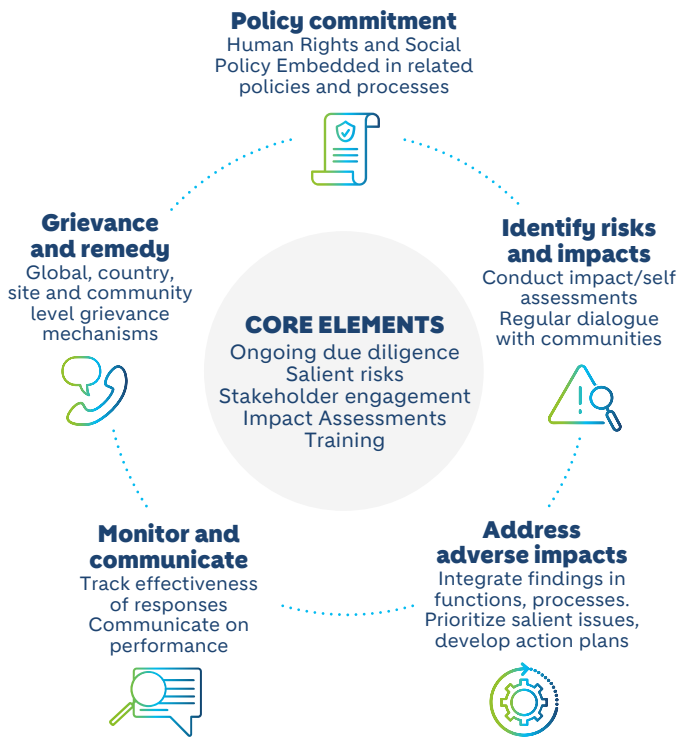
Start of human rights training

2012

Published the detailed Human Rights Manual, applicable for all countries

Supplier Code of Conduct, based on the UN Global Compact principles, published and communicated to all suppliers; launched the Sustainable Procurement program applicable for all countries

Our Human Rights Approach



Our Human Rights and Social Policy and Human Rights Directive sets out our approach, processes and our salient risks. Holcim’s human rights guidelines and salient risks were defined after extensive consultation with our global senior executives, global managers, staff, external human rights experts, civil society and community representatives, and are aligned with the principles and values of the UN Guiding Principles on Business and Human Rights and the OECD Guidelines for Multinational Enterprises.

Human rights due diligence and global training are key to our efforts to improve performance. Human Rights Impact Assessments, which are part of our Human Rights Approach and due diligence work, have been carried out for more than a decade, led either by Group-level experts or at a country level. Today, every country where we operate has a human rights assessment process in place with defined action plans. In 2023, 21 Impact Assessments and 26 Self Assessments were conducted (including joint ventures). Under our country and Group-level programs in 2023, we trained more than 18,650 employees, contractors, community members and other stakeholders on human rights topics.

2016
First Human Rights Directive published

2019
More than 90 percent of countries had identified their high ESG-risk suppliers; 77 percent of spend with them was aligned with our Supplier Code of Conduct and the Sustainable Procurement program

2021
Human Rights and Social Policy launched and Human Rights Directive updated
Governance of our Human Rights Approach strengthened
More than 16,000 people trained on human rights
100 percent of countries had a human rights assessment process and action plan in place
Signed the UN Pledge to contribute to eradicating child labor in supply chains and initiated actions to increase visibility in our extended supply chain for high-risk categories and countries

2014
Human rights assessments conducted at 39 Group companies; action plans drawn up by 21 Group companies to rectify issues

2017
More than 50 percent of Group countries had conducted human rights assessments in the last three years

2020
Internal human rights community relaunched
CEO Jan Jenisch signed the Call to Action for Business Leadership on Human Rights by the World Business Council for Sustainable Development (WBCSD)
Corporate Human Rights Benchmark placed Holcim first in the building materials sector

2023
All cement plants and grinding units in Holcim consolidated and managed countries to have human rights assessments in place
Corporate Human Rights Benchmark again placed Holcim first in the building materials sector
100 percent of countries had identified their high ESG-risk suppliers; 93 percent of spend with them was aligned with our Supplier Code of Conduct

LEADING IN SUSTAINABILITY CONTINUED

Our Human Rights Salient Risks

We have identified seven salient human rights risks from our business activities, which we may cause or contribute to, or to which we could be directly linked, and which we seek to proactively identify, cease, prevent or mitigate.

Salient risk	What it means for Holcim	Examples
Health and safety	Being a leader in the building materials industry means setting new health, safety and environmental standards. Our aspiration is to conduct a business with zero harm to people and to create a healthy and safe environment for our employees, contractors, communities and customers, while minimizing our environmental footprint.	In 2021, we rolled out the Boots on the Ground program worldwide. The initiative includes a digital application that drives employee engagement and provides managers with tools to enhance the work environment and support the safe execution of the job. Boots on the Ground's gamified approach to workforce engagement has resulted in 650,000 field interactions recorded and 200,000 improvement actions closed in 2023.
Working conditions in our operations and particularly in our supply chain	We respect workers' rights. This applies to direct employees as well as contractors.	In Iraq, new accommodation of a good standard was built for security guards, to further improve working conditions for contractors on our facilities.
Discrimination and harassment	We promote an inclusive and fair workplace, where discrimination and harassment are not tolerated. An equal opportunities employer, Holcim actively promotes diversity, making no distinction on ethnic backgrounds, cultures, religions, ages, disabilities, medical conditions, races, sexual identities, gender, worldviews, affiliation to political organizations, unions, minority groups, sexual orientation, race and religion. Harassment is an unwelcome, disrespectful or unacceptable behavior that has the purpose or effect of creating an intimidating, hostile or offensive work environment.	Globally, the company created LeanIn Circles. These are small groups of 8-12 women, who meet on a regular basis to share experiences, insights, and knowledge, all while providing a supportive network for one another. It is a space where people can learn, grow and thrive together. In 2023, more than 300 women from 32 countries participated in the LeanIn Holcim Network.
Security-related abuses and violations	We use security services to protect our people and assets from intentional criminal activity and malicious acts on an as-needed basis and follow a strict risk-based methodology and stringent rules of professionalism and integrity. Holcim has made its adherence to human rights very clear in its Security and Resilience Policy and governance. Holcim is holding its private security service providers and public forces accountable for meeting the highest compliance standards with international best practices for security and human rights.	In October and November 2023 in Nigeria, we provided a sensitization for 90 public security forces from high-level government officials to local area commanders. The sessions were held in the form of central meetings, local workshops and pilot 'train the trainers' sessions as part of the Holcim Security Services with Integrity (SSI) program. This is the first step of a long-term program that Holcim is providing for the public security forces in the country.

Salient risk	What it means for Holcim	Examples
<p>Child labor in high-risk supply chains</p>	<p>We respect and support children’s rights in our operations and supply chain. Holcim is at the beginning of the supply chain, therefore our Human Rights Impact Assessment and actions with communities are key levers to identify and act to eliminate child labor, for example by implementing social initiatives addressing communities’ socio-economic challenges.</p>	<p>In 2021 we joined forces and signed the International Labour Organization (ILO) pledge to “Eliminate Child Labour in global supply chains”. In 2023, we implemented a proactive “ESG Alert System” that uses Artificial Intelligence to map and monitor Tier 2 suppliers in high-risk supply chains (e.g. extractive materials in MEA). For many years, we’ve been enabling access to education by running 19 schools in nine countries (e.g. Colombia, Iraq, Jordan), to help prevent child labor.</p> <p>➔ More information is available on page 106</p>
<p>Dust and other emissions</p>	<p>We require all our sites to measure and manage air and other emissions. Our plants shall operate within emission ranges to comply with environmental laws, regulations and standards applicable to our products and operations, and subscribe to leading industry initiatives and internal requirements. We continue to make improvements across all sites to address other sources of dust, such as surrounding roads. We have a program in place to consistently reduce fugitive emissions in all our plants, to preserve the local environment and minimize impacts on neighboring communities.</p>	<p>When a dust filter problem occurred at one of our plants, we immediately took action to remedy the situation and informed the community. We stopped production for nine months until the filtering system was upgraded to meet internal and external requirements. More than CHF 7 million was invested to improve dust-related equipment at the plant. The newly installed filter requires less maintenance and simpler operations, being more reliable in ensuring low emissions of dust.</p>
<p>Climate change and its impacts</p>	<p>We are decarbonizing our operations, scaling up low-carbon and circular construction, and growing Solutions & Products to make buildings sustainable in use. Holcim’s strategy includes 2030 and 2050 targets aligned with a 1.5°C scenario validated by the Science Based Targets initiative. We engage transparently and responsibly with public authorities, industry partners, customers and communities to create a political, economic and social ecosystem that encourages decarbonization, and fosters an environment that works for people and the planet.</p>	<p>We take a whole-society approach toward reaching net zero, respecting human rights while creating decent work to ensure a Just Transition.</p> <p>In the absence of a universal framework for a Just Transition, we engaged with external provider DNV to develop our own. Our aim is to assess the impacts of our journey to net zero on four key stakeholder groups: our people, our suppliers, our communities and our customers.</p>

LEADING IN SUSTAINABILITY CONTINUED

Human Rights Impact Assessments

Human Rights Impact Assessments (HRIA) require careful preparation and in-depth work on the ground with a wide range of internal and external stakeholders.

For example, during one of Holcim's HRIA's in 2023, we held confidential consultations with approximately 100 stakeholders at several sites in Ecuador. These consultations included employees of all levels, contractors, clients, NGOs, minority groups, government officials and local populations. We also met suppliers and customers, diplomats and a national human rights organization, as well as labor and human rights specialists.

The result of the assessment showed that our employees and contractors enjoy safe and dignified working conditions. Labor rights are being respected and in all areas, the Holcim operating company goes considerably beyond minimum legal requirements. The impact assessment was carried out by highly experienced and trained Group-level employees who have done similar HRIAs in many parts of the world. The assessment was conducted with a local Holcim team, with representatives of different functions, such as Health Safety and Environment, Sustainability and Human Resources. Training the local team is part of our strategy to embed human rights due diligence in ongoing processes.

After the visit, the assessment team shared a report including key findings with the country's Executive Committee. It had recommendations for improvements and actions to counter potential risks identified. An overview of positive aspects, including the closure of actions from previous assessments, and opportunities for continuous stakeholder engagement, was also included. The findings and actions were recorded in a global system and are followed-up on a quarterly basis by the country's and Group's human rights experts.

Ongoing stakeholder engagement

From Group level to our sites, we regularly speak to a wide range of stakeholders, from community members and employees to NGOs and government representatives, to explain company positions, build trust, understand expectations and listen to grievances and concerns.

At and around our sites, we aim to build and maintain regular and constructive relationships with the people who influence our business activities or could be impacted by them. Every cement and grinding site must have a locally managed stakeholder map and engagement plan in place.

Having a Community Advisory Panel is mandatory for cement plants and grinding units and ensures regular exchanges with community representatives. In 2023, 116 cement sites had an active Community Advisory Panel, with 1,526 meetings held with local stakeholders. Engagement with relevant stakeholders is also mandatory in the planning stage of a new development, such as a new quarry.

Addressing stakeholder questions

We have a number of mechanisms in place to address stakeholder questions and concerns. IntegrityLine is an anonymized and confidential grievance mechanism, available in multiple languages, for employees and their families, contractors, suppliers, business partners, customers, community members and other stakeholders. The hotline service is operated by an external third party. All grievances must be investigated and responded to.

Regular engagement with key stakeholders helps us to better communicate how our business activities, as well as our sustainability performance, are likely to affect our stakeholders. The dialogue allows us to better understand our stakeholders' perspectives and provide opportunities to co-create solutions that benefit everyone.

CONCRETE FLOORS FOR IMPROVED HEALTH

NICARAGUA

In Latin America, approximately six percent of households have dirt floors, which can lead to serious illness, particularly among children and elders. Habitat for Humanity launched the 100,000 Floors to Play initiative to replace 100,000 dirt floors with concrete among Latin America and the Caribbean's most vulnerable populations. In 2022 and 2023, Holcim Nicaragua replaced dirt floors in 175 households with concrete in the cities of Estelí and Nagarote. We will continue at a faster pace until 2030 as we aim to reach our 1,200 households target.



Holcim Nicaragua is taking part in Habitat for Humanity's 100,000 Floors to Play project

EMERGENCY SHELTERS

MOROCCO

Following the devastating earthquake in Morocco in September 2023, our local team actively contributed to first aid efforts by sending three medical ambulances and 28 volunteer rescuers to the affected Al Haouz region.

The team also established tents and a base camp in Toulkine (Tahanaout region), featuring 18 purpose-built and fully equipped bungalows that can accommodate 120 people. These bungalows serve as a refuge for residents battling harsh winter conditions, and as classrooms for children, showcasing our dedication to the well-being of the communities we serve.

In collaboration with the Holcim Innovation Center, an emergency shelter, inspired by the Essential Homes Research Project, was also installed in the Toulkine region. The emergency shelter is made from low-carbon rollable concrete slabs, used as an external shell for physical security and waterproofing.



Shelter prototype designed by Holcim Innovation Center and Holcim Morocco

Wide-ranging initiatives to empower communities

At Holcim, we are fully committed to creating a positive social impact. Social initiatives complement our human rights commitment. We strive to be a trusted corporate citizen and to contribute to the social and economic development of the communities in which we operate.

In 2023, we continued to empower communities through a broad range of initiatives covering housing, health, education and skill building. In addition, Holcim employees spent 47,750 hours volunteering in our communities, taking part in everything from beach cleanups to sharing skills in local schools.

Access to adequate housing

Globally, 1.6 billion people lack adequate housing and infrastructure. Using our expertise in building solutions and partnering with communities, NGOs and governments around the world, we address this global social challenge.

Our experts develop innovative low-carbon solutions that bridge the gap in affordable housing and infrastructure. This benefits people and communities globally while contributing to our business success. Partnering with organizations that share our goal of building more affordable and resilient housing, such as Habitat for Humanity or c, we collaborate to scale up impact. Holcim is a founding member of Roof Over Our Heads, a campaign to improve the lives of two billion vulnerable people living in informal settlements by 2050.

HOUSING FOR THE HOMELESS

CANADA

In Canada, veterans are disproportionately at risk of becoming homeless. The Homes for Heroes project provides a caring, innovative and comprehensive solution to homelessness among veterans by building unique and affordable urban villages in cities across Canada, with the aim of helping homeless veterans get back on their feet.

CLIMATE-RESILIENT HOMES

PHILIPPINES

In the Philippines, we invested to jumpstart our climate-resilient housing program in partnership with local NGOs, Build Change and ASKI-MFI. The initiative gave financial access to low-income families vulnerable to the impacts of extreme weather events. It empowered local communities to build resiliently thanks to technical training, and integrated use of Holcim's innovative products to retrofit and improve people's homes.

JUST TRANSITION

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

We are committed to decarbonization in line with the Just Transition principles. In the absence of a universal framework for a just transition, we have developed a framework to assess the impacts of our journey to net zero on four key stakeholder groups: our people, our suppliers, our communities and our customers.

HOLCIM FRAMEWORK FOR A JUST TRANSITION

The framework is informed by various guidelines and initiatives, beginning with the International Labor Organization's (ILO's) Just Transition guidance, with its focus on workers, as well as the Paris Agreement's focus on communities and stakeholder engagement. We also considered:

- The Just Transition Dialogue Report by the Institute for Human Rights and Business (IHRB) and Wilton Park
- Key stakeholder groups identified as per the London School of Economics' Grantham Research Institute on Climate Change and the Environment in their 'Translating just transition ambitions into investor action' policy report
- Just Transition indicators presented by the World Benchmarking Alliance's Just Transition Methodology, considering ISO 26000 and United Nations Guiding Principles on Business and Human Rights

In 2023, we embedded the principals of our Just Transition framework into our Climate Policy and will continue to further integrate it into our climate strategy as external guidelines advance.



Planting mangroves with communities at the Holcim plant in Cilacap, Indonesia

Our people

We are committed to creating a high-performance culture of empowerment, lifelong learning and development. We aim for all employees to develop their skills in a way that helps us achieve our green growth ambitions while they continue to thrive.

Employment in cement production will continue and the embedded skills of our workforce will continue to be of significant value in reaching net zero. We anticipate expanding roles in replacing limestone with innovative mineral components such as calcined clay, or construction demolition materials (CDM), as well as the pre- and co-processing of materials at end of life for fuels and alternative raw materials.

We also expect our carbon capture, utilization and storage (CCUS) commitments, which involve investing CHF 2 billion and capturing over five million tons of CO₂ annually by 2030, to create high-value opportunities for our workforce. We have identified 17 flagship projects, with each one well positioned to become a net-zero cement plant.

Our suppliers

Our supply chain will change as a result of our transition to net zero. For example, our needs for raw materials will shift toward alternatives such as CDM. We will also expand into new business lines, such as roofing and insulation. We remain committed to a just transition for all the suppliers we work with. This commitment is framed across three main pillars:

- Respecting human rights: by actively monitoring and verifying compliance with our Supplier Code of Conduct and carrying out due diligence, according to our Human Rights Directive, in every market where we operate to identify, prevent and address human rights breaches.
- Promoting health and safety: We take a systematic approach to health and safety management within our supply chain, verifying compliance with applicable standards and regulations. Suppliers and contractors are selected based on their demonstrated qualifications in these areas. Ongoing training and performance monitoring enables effective management of health, safety and well-being.
- Collaborating with suppliers: We partner with key suppliers to decarbonize our supply chain. We enable multi-stakeholder platforms to accelerate the adoption of decarbonized technologies, such as electric trucks.



We are committed to creating a high-performance culture where our employees can continue to thrive

Our customers

We are at the forefront of decarbonizing building throughout its lifecycle to ensure a net-zero future, building progress for people and the planet.

Building better with less

With our world's rising population and urbanization, Holcim is building better with less to improve living standards for all and build a net-zero future.

The key to decarbonizing construction is developing low-carbon materials and using smart design.

Since concrete is versatile, resilient and infinitely recyclable, we are continually innovating to make low-carbon concrete the building material for a net-zero future. Our ECOPact concrete offers significant CO₂ reductions without compromising on performance and is available in 31 markets.

Decarbonizing cities

Holcim solutions help decarbonize cities, from flooring and insulation to advanced mortars and green retrofitting. We are becoming a global leader in roofing with systems spanning cool, green and solar-enabling roofs.



Did you know?

3D construction printing offers four key benefits: automation, speed, sustainability and design freedom. We are using smart design with 3D printing to build better with less, reducing materials by up to 50 percent. With 3D printing, we are creating high value, technologically advanced jobs that are replacing some traditional construction roles.

This automation is helping to mitigate critical labor shortages in mature markets such as Europe and North America. Technology advancements with 3D printing will ensure the construction industry can attract and retain the talent required to lead decarbonizing building across the value chain.

The speed of 3D printing is key to solving critical infrastructure shortages, such as the lack of adequate housing and infrastructure for 1.6 billion people in the world today. These problems are most acute in emerging markets.



The Mvule Gardens complex of 50 houses is using 3D printing to deliver affordable, climate-resilient homes in Kenya

Our communities

At Holcim, we are on our journey to promote sustainable development through innovative building materials and solutions. We remain fully committed to creating a positive social impact in the communities where we operate.

Addressing the vital need for housing

Approximately 2.8 billion people experience some form of housing inadequacy. We partner with communities and governments around the world to address this pressing issue, which is expected to become more urgent as a consequence of climate change.

Our experts develop innovative low-carbon solutions that bridge the gap in affordable housing and infrastructure.

We partner with organizations who share our goal of building affordable housing, such as Habitat for Humanity. We are a founding member of the Roof Over Our Heads campaign, which aims to improve the lives of two billion climate-vulnerable people living in informal settlements by 2050.

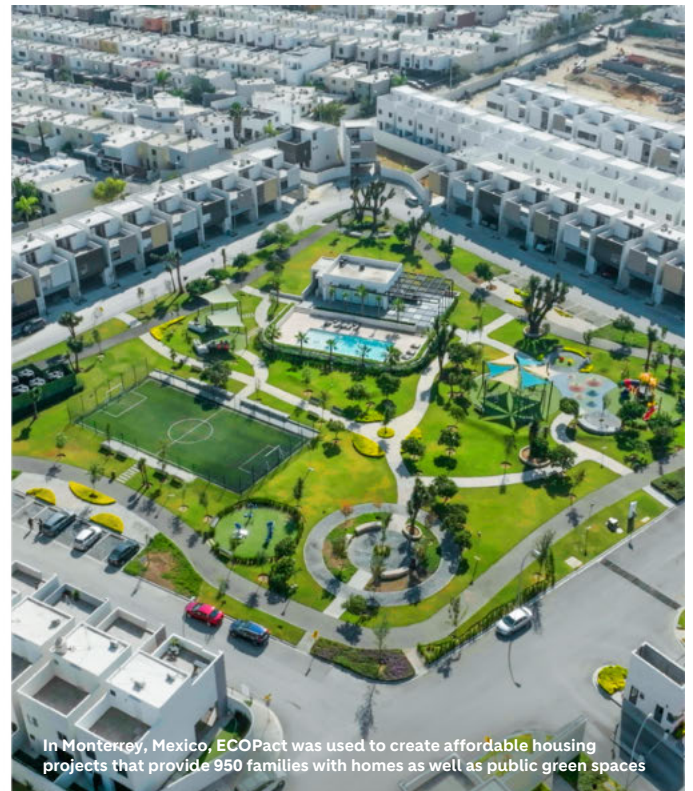
“Partnering with Holcim channels market power and digitalization to improve living standards for those most in need. This partnership highlights the critical role that private sector partners like Holcim can play in increasing access to affordable housing for low-income families.”

JONATHAN RECKFORD

CEO, Habitat for Humanity International



Casa Laguna, the largest affordable housing project in Ecuador to date, used ECOPact for a 3,500 unit housing development



In Monterrey, Mexico, ECOPact was used to create affordable housing projects that provide 950 families with homes as well as public green spaces

Report on due diligence and transparency in relation to minerals and metals from conflict-affected areas and child labor

A) Minerals and metals from conflict-affected areas

Holcim is committed to maintaining a responsible and ethical supply chain. Based on the information contained in Holcim's supply chain traceability system, Holcim has not placed in free circulation or processed in any country of operation, including Switzerland, any conflict minerals or metals (tantalum, tin, tungsten and gold) from conflict-affected or high-risk areas in 2023.

B) Child labor

1) Holcim's commitment and adherence to international regulations

Holcim is committed to respecting and promoting the rights of people and children in its own operations, supply chain and in the communities where it operates. Respect for human and children's rights is fundamental to Holcim's ability to do business across all sites in the operating countries. Child rights are fully integrated into Holcim's human rights and sustainable procurement programs and standards. In 2021, Holcim signed a pledge to "Eliminate Child Labour in Global Supply Chains".¹

Holcim's commitment is aligned with the principles and values contained in the following internationally recognized regulations:

- ILO Convention No 138 on Minimum Age
- ILO Convention No. 182 on the Worst Forms of Child Labour
- ILO-IOE Child Labour Guidance Tool for Business of 15 December 2015
- OECD Due Diligence Guidance for Responsible Business of June 08, 2023
- UN Guiding Principles on Business and Human Rights

2) Due diligence

a) Supply chain policy

Holcim's supply chain policy is integrated into its overall human rights approach. Holcim's human rights – including child labor – due diligence is based on thorough human rights impact assessments and stakeholder engagement, which are carried out at country and site levels, as well as risk-based due diligence. For more details please refer to the Human Rights Section on page 96.

Holcim clearly and actively communicates its commitment and human rights expectations of employees and business partners through the Code of Business Conduct, Human Rights Directive, Sustainable Procurement Directive, and the Code of Business Conduct for Suppliers, which all are publicly available. The Code of Business Conduct for Suppliers, which is an integral part of contracts and agreements between Holcim and its suppliers, explicitly states that suppliers shall prevent all forms of child labor.²

Holcim applies a "zero-tolerance" approach to any form of child labor in its supply chain and any breach leads to an immediate termination of any business relationship and remediation of the situation.

b) Own operations

Holcim's efforts to eliminate child labor start within its own operations. For Holcim employees, the Code of Business Conduct explicitly prohibits the exploitation of children, including through child labor.³ The basic principles provided by the International Labour Organization (ILO) are adopted in Holcim's Human Resources Policy and implemented throughout all business operations. This includes Holcim's commitment to conduct business with a goal of zero harm and in full compliance with its strict health and safety requirements.

For the financial year 2023, Holcim does not have reasonable grounds to suspect child labor within its own operations.

¹ <https://endchildlabour2021.org/wp-content/uploads/2021/07/Holcim-Ltd.pdf>

² https://www.holcim.com/sites/holcim/files/documents/2021_coc_a5_english-final.pdf

³ https://www.holcim.com/sites/holcim/files/documents/holcim_code_of_business_conduct_2021.pdf

c) Supplier qualification, traceability, and verification

Holcim's Sustainable Procurement program requires that new suppliers are assessed to identify potential risks related to the products or services provided, business activities (volumes and spend, hazard of work and locations) and the countries' risk levels.

Supplier qualification is conducted before starting a business relationship with the supplier and continues during the business relationship, as a minimum on an annual basis.

Holcim tracks every purchase of goods and services in each market where it operates, including descriptions of products or services, trade names as well as the names and addresses of suppliers and the production sites or service providers. This enhances Holcim's ability to trace the origin of the materials purchased and this information is used to monitor the country risk for child labor via the UNICEF Children's Rights in the Workplace Index and ILO Statistics on Child Labour. Furthermore, Holcim maps and monitors additional tiers of the supply chain as an additional measure to prevent child labor in its supply chain.

Holcim verifies compliance with its Supplier Code of Conduct, following a three-step verification process:

1. Self-assessment questionnaire: using Holcim qualification platforms.
2. Fact-finding: collecting evidence to verify potential breaches identified in the self-assessment.
3. Field audits: to confirm deviations and to verify compliance on high-risk procurement categories.

For more details please refer to the Sustainable Supply Chain section on page 110.

d) Reporting procedure

Holcim addresses complaints and grievances received through its global Integrity Line, which supplements numerous site- and community-level grievance mechanisms. All Holcim employees, suppliers and other interested third parties have access to the Integrity Line, which is an independently operated platform to raise potential or actual concerns regarding business practices, including regarding child labor.


Reports can be submitted online, via phone or email in their chosen language, anonymously, if preferred. All reports are documented, and indications of potential child labor are subject to assessment, investigation and follow-up. Depending on the results, appropriate measures are applied to avert or mitigate risks and negative effects, and Holcim evaluates the results of the measures and communicates them. For more details on the Integrity Line, please refer to page 120.

e) Risk management

Holcim's supply chain policy follows a risk-based approach, considering, among other things, the OECD Due Diligence Guidance for Responsible Business, the UN Human Development Index (HDI) and the Freedom House Index. Risk management is set up to eliminate, prevent or mitigate any identified risks in the supply chain according to their likelihood of occurrence and the severity of adverse impacts.

f) Transparency

Holcim publicly discloses annual performance indicators regarding the implementation of its supply chain policy. This information is disclosed for the entire Group and covers all geographic areas and all business segments.

 For more details look at our ESG policies, documents and reports

SUPPLY CHAIN

ART. 946B CONTENT REQUIREMENT

110 Sustainable Supply Chain

114 Report on due diligence and transparency in relation to minerals and metals from conflict-affected areas and child labor

SUSTAINABLE SUPPLY CHAIN

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, in all markets where we are present.

The standards and principles governing sustainable procurement at Holcim are based on the UN Global Compact Ten Principles, the OECD Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights and the International Labor Organization’s Declaration on Fundamental Principles and Rights at Work.

The overriding policies that govern Holcim’s approach to deploy responsible business practices in our supply chain are the Supplier Code of Conduct, the Procurement Policy and the Sustainable Procurement Directive.

Sustainability is embedded in our procurement strategy: “Sustainable Competitiveness”. Purchasing decisions pursue the use of sustainable products and services that are competitive in the market. They can be scaled-up at the speed and level of magnitude needed to build progress for people and the planet and create value in each market (~90 percent of the total procurement spend is with domestic suppliers).

Commitment to transparency

Holcim’s regular and reliable disclosures reflect our due diligence commitments and performance:

- Governance: Policies, Code of Conduct, Process, Minimum Controls to enforce ESG compliance across all business lines and geographies.
- Materiality: Risk-based methodology to identify areas of significant potential ESG impacts or risks.
- Performance: KPIs related to our sustainable procurement actions taken to prevent or mitigate risks and impacts identified.

DUE DILIGENCE TARGET AND PERFORMANCE

93%

Of spend with high-ESG impact is with qualified suppliers.

Equivalent to approximately 24,000 suppliers worldwide, covering around 60 percent of our total third-party spend

SUSTAINABLE PROCUREMENT CORE ELEMENTS

From ESG compliance to ESG impact



SUPPLIER DUE DILIGENCE

Supplier Code of Conduct



CLIMATE IN THE SUPPLY CHAIN

Directive Sustainable Procurement



NATURE IN THE SUPPLY CHAIN

Supplier due diligence

In all countries, we have processes in place to identify, prevent and manage potential adverse impacts pertaining to Climate, Nature (biodiversity and water), Health, Safety and Environment (HSE), Security and Resilience (S&R), Social Responsibility, Human Rights, Business Ethics and Legal Compliance in country supply chains.

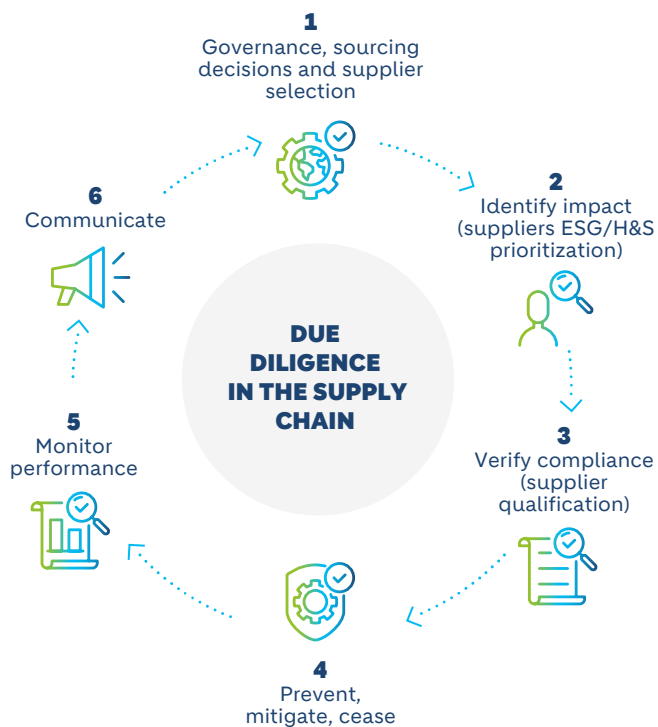
Holcim applies a periodic supplier prioritization methodology to focus due diligence actions on the main risk procurement categories:

- Maintenance and production contracted services
- Raw materials, in particular mining, chemicals and packaging
- Logistics services
- Energy and fuels

Our due diligence approach begins with the qualification of prioritized suppliers, which consists of regular performance evaluations in the form of self-assessments, fact finding or audits, to verify compliance.

Throughout the process, Holcim engages in dialogue with suppliers so that they understand our expectations and how they will be evaluated.

When a supplier does not meet the requirements, corrective action plans are established and guidance provided. Holcim monitors the progress and, when appropriate, supports suppliers in developing their capabilities to improve ESG performance.



RISK-BASED DUE DILIGENCE IN THREE MAIN STEPS



Know who the supplier is
(Risks/Opportunities)

Supplier screening/prioritization

1. Products/Services
2. Business relationship
3. Country risk



Verify compliance
(Supplier Code of Conduct)

Verification levels

1. Self-assessment questionnaire
2. Fact-finding (evidence)
3. Site audits



Address non-compliance
(Risk mitigation)

Risk mitigation

1. Improvement plans
2. Additional controls
3. Supplier replacement

Ongoing performance evaluation



Holcim may terminate relationships with suppliers that breach zero tolerance requirements and/or suppliers that repeatedly and knowingly violate the Code of Conduct and refuse to implement improvement plans.

Holcim operates a global whistleblowing line known as IntegrityLine, to facilitate employees, customers, suppliers and other stakeholders in reporting any concerns about Holcim's business practices.

Holcim co-operates in good faith with National Contact Point, when required, to address adverse impacts that might arise from stakeholders with regards to principles and standards contained in the OECD Guidelines.

Nature in our supply chain

Through our procurement decisions, we strive to reduce our dependency on natural resources and negative impacts on biodiversity and water. We implement specific actions on purchased categories identified as having a potential impact on nature, in particular: natural sand, other raw materials extracted from earth through mining, packaging and chemicals.

Climate in our supply chain

Our procurement and logistics professionals around the world are working at full speed to deliver on Holcim Climate commitments across all GHG scopes. Actions are focused on the most material purchasing categories: power and energy, fuels, transportation, raw materials, and equipment. Our efforts include engaging key suppliers to foster innovation and clean technologies.

RESPONSIBLE MINING IN OUR SUPPLY CHAIN

We introduced a program to deploy responsible mining practices with our strategic suppliers of extractive raw materials, including but not limited to, natural sand. The five-module program prepares small and medium-sized suppliers for having a certified Environmental Management System and social practices that respect human rights and communities around their quarries.

The program was recently piloted in Argentina, with further implementation planned in all relevant markets. This initiative marks a shift beyond supplier qualification to supplier development.



SUPPLIER ONBOARDING

Engage suppliers to initiate the development program



TRAINING

Deliver training to ensure supplier understands minimum requirements established in Holcim Code of Conduct



SITE ASSESSMENT

Verify environment, health, safety and social practices at supplier site



PERFORMANCE IMPROVEMENT

Support suppliers to close compliance breaches identified during site visit



CERTIFICATION

Verification that suppliers meet the requirements to obtain formal certification (focus on environmental management system)



Holcim recently piloted our program to deploy responsible mining practices in Argentina

Report on due diligence and transparency in relation to minerals and metals from conflict-affected areas and child labor

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f) Transparency

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COMBATING CORRUPTION

ART. 946B CONTENT REQUIREMENT

118 Corporate governance

119 Compliance program – performance with integrity

Holcim applies high standards to Corporate Governance. The goal is to assure the long-term value and success of the company in the interests of various stakeholder groups: customers, shareholders, employees, creditors, suppliers and the communities where Holcim operates.

Preliminary remarks

The ultimate goal of effective Corporate Governance is long-term value creation and strengthening of the Group's reputation. This includes continuous improvement to decision-making processes and management systems through legal, organizational and ethical directives and terms of reference, as well as measures to enhance transparency.

Compliance with internal as well as external law and regulations, early recognition of business risks, social responsibility for stakeholder groups, and open communication on all relevant issues are among the principles of Holcim.

The Code of Business Conduct, binding for the entire Group, is part of our internal regulations. For further information in relation to Holcim's comprehensive risk-based compliance program, please refer to page 106.

The information published in this chapter conforms to the Directive on Information relating to Corporate Governance of the SIX Swiss Exchange (SIX) and the disclosure rules of the Swiss Code of Obligations. In the interest of clarity, reference is made to other parts of the Annual Report or, for example, to the Group's website: [holcim.com](https://www.holcim.com)

Except where otherwise indicated, this Annual Report reflects the legal situation as of 31 December 2023.

Group structure and shareholders

The holding company Holcim Ltd was established under the laws of Switzerland for an indefinite period. Its registered office is in Zug (Canton of Zug, Switzerland). It has direct and indirect interests in all companies listed on pages 295–304 in the [2023 Integrated Annual Report](#).

The Group is organized by segments. The management structure as per 31 December 2023 is described in this chapter.

To the knowledge of Holcim, it has no mutual cross-holdings with any other company. To the knowledge of Holcim, there are neither shareholders' agreements nor other agreements regarding voting or the holding of Holcim shares.

More detailed information on the business review, Group structure and shareholders can be found on the following pages of the [2023 Integrated Annual Report](#):

TOPIC

- [Business review of the Group segments pages 276–280](#)
- [Segment information pages 306–307](#)
- [Principal companies page 301](#)
- [Information about Holcim Ltd & listed Group companies page 304](#)
- [Information about Significant Shareholders page 386](#)

Compliance Program – Performance with Integrity

High performance with high integrity is key to sustainable success. Acting with integrity creates trust, protects our reputation, lowers our cost of doing business, and enhances shareholder value.

Holcim maintains a comprehensive risk-based compliance program (Compliance Program), which is based on requirements under national as well as international laws and relevant standards. Holcim's decentralized, empowered operating model is considered in the design and operation of the Compliance Program, in a manner that recognizes the business model while also ensuring appropriate centralized oversight and control. The Compliance Program has five pillars and is subject to continuous optimization.

Combating corruption is an important area of the Compliance Program. Compliance with all applicable anti-bribery and anti-corruption laws and regulations is an integral part of Holcim's license to operate. Holcim is a signatory to the United Nation Global Compact Initiative and committed to support its principles on anti-corruption.

1. Organization and Governance

The Group's Executive Committee is responsible for the Group-wide implementation of the Compliance Program and sets the tone from the top in support of the Compliance Program. The key responsibilities of the Compliance function lie in the prevention, detection, and correction of compliance infringements. It is the responsibility of the Compliance function to work with all stakeholders to identify weaknesses and control gaps, support management during implementation of corrective measures and ensure a systematic follow-up of such measures. Compliance assists management with promoting and fostering a foundation of integrity in all business practices.

The Compliance function is embedded and aligned within the Legal function and includes staff at the Group, Region, and Country levels. At the Group level, the Compliance function is headed by the Head of Legal and Compliance who has delegated the responsibility for the organization and management of the Compliance function to the Chief Compliance Officer and the Head of Competition Law (in relation to Fair Competition). Regular checks and reviews are conducted to ensure that Compliance resources at Group, Region and Country levels are sufficient.

The Group provides oversight of the Compliance Program through the Ethics, Integrity and Risk Committee (EIRC). The EIRC meets at least quarterly to oversee compliance matters, including compliance investigations, disciplinary actions recommended to management, as well as remediations of identified process or control deficiencies.

The Group's governance structure further ensures that the Audit Committee maintains significant visibility into the effectiveness of the Compliance Program. The Head of Legal and Compliance attends the Audit Committee meetings and reports regularly to the Audit Committee on the Compliance Program and function. Additionally, the Chief Compliance Officer has a dotted reporting line to the Chair of the Audit Committee, allowing the Group Chief Compliance Officer to escalate matters directly if necessary.

2. Risk Assessment

The annual compliance risk assessments survey key risk manifestations such as bribery and corruption or sanctions and export control against different risk triggers and specific scenarios. If there are relevant changes to the risk profile during an annual cycle, such as for example due to mergers or acquisitions, the compliance risk assessments will be updated on an ad hoc basis. The compliance risk assessments are integrated into the Enterprise Risk Management (ERM) Group-wide risk assessment cycle. For more information, please refer to the Key Operational Risks section on page 131.

Regarding anti-bribery and anti-corruption, the main risks identified in the compliance risk assessments include risks associated with obtaining and maintaining licenses and permits for business operations. As Holcim also operates in jurisdictions with a heightened exposure to bribery and corruption, the risk profiles in these jurisdictions are elevated accordingly. Third-party risk and risk pertaining to joint ventures are considered additional risk heightening factors where applicable.

3. Controls

Holcim has adopted a multi-layered approach to controls. This includes:

- Specific and detailed policies and directives that specify the conduct to which to adhere in operations. Their coverage includes the topics of anti-bribery and anti-corruption, third party due diligence, sanctions, embargoes and export controls, conflicts of interest, fair competition, data protection and privacy, as well as speak-up and internal investigations.
- Policies and directives are strengthened through the use of specific transactional and entity level controls which are implemented through the internal control system and monitored by the Internal Controls function. For more information please refer to the Internal Control section on page 138.
- Policies, directives and controls are reinforced through training and communications activities, which are planned, implemented and tracked in all operating countries.
- The implementation of controls and the delivery of training and communications is monitored through a system of compliance metrics and through audits conducted by the Internal Audit function.
- All conduct is subject to speak-up integrity reporting and a comprehensive review and response mechanism, including employee disciplinary measures.

4. Training and communications

Regular compliance communications and training start at onboarding, during which all employees are required to review the Code of Business Conduct, which begins with a letter from the Group CEO and Head of Legal & Compliance, discussing the importance of integrity, compliance, and the Code of Business Conduct – and to acknowledge in writing that they have read and understood the Code.

Continuous communications are subject to an annual planning process, which is localized to every operating country. The annual compliance planning process results in country-specific communications plans, tailored to the risk profiles of each country, executed in each country, and monitored by region and Group. This provides for a dialogue on compliance at Country level across the Group and is supplemented by Group- or Region-wide communications and awareness campaigns.

Training is delivered both through e-learning and face-to-face training sessions. E-learning training is provided to a broad employee audience. Face-to-face training is given to employees in functional positions that face heightened exposure to compliance risks. Training attendance is tracked and follow-ups are conducted. In 2023, a total of 11,981 employees received role-relevant business integrity face-to-face training and 42,586 employees conducted business integrity e-learning.

5. Monitoring and Reporting

By monitoring and reporting compliance-related metrics, Holcim measures the performance of the Compliance Program, providing reasonable assurance that the Compliance Program is effectively implemented. Metrics include both preventive measures such as training and communications or third-party due diligence, as well as detective or responsive measures such as corrective actions identified through the compliance processes, internal control testing, internal audits or internal investigations.

To support transparency over its conduct and business integrity, Holcim encourages a culture of speaking up. Any concern over known or suspected misconduct, which means any conduct relating to Holcim's business that is potentially illegal, violates the Code of Business Conduct or other applicable policies and directives, can be reported. Holcim manages a global reporting system called Integrity Line to facilitate employees, suppliers, customers, or members of the public to report any concerns. Holcim employees have a duty to report their concerns and Holcim views active reporting as a healthy indicator of an integrity culture. The Integrity Line is provided by an independent third party and all reports are objectively assessed and investigated if required.

All reports are treated seriously, and the confidentiality of the involved parties are preserved to the extent possible. Holcim applies a zero-tolerance policy regarding any misconduct and any retaliatory actions against reporters.

In 2023, a total of 836 reports were received in the Integrity Line, out of which 493 were reports of misconduct that required further assessment or investigation. The reporting categories of the 493 reports included: Human Resources, Diversity and Workplace Respect (244 / 49 percent); Business Integrity (132 / 27 percent); Misuse or Misappropriation of Assets (44 / 9 percent); Environment, Health and Safety (37 / 8 percent); Other (36 / 7 percent). The substantiation rate for investigated cases was 28 percent. 46 cases resulted in dismissals, 88 cases in other employment/disciplinary measures and 78 cases in process improvements, including training, third-party related sanctions and control adjustments.

MATERIAL RISKS

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RISK AND CONTROL

At Holcim, we are committed to managing our risks to achieve our strategic objectives and create value for society.

In full alignment with Holcim's "Strategy 2025 – Accelerating Green Growth," we make continuous efforts to prevent and control the risks to which we are exposed. A comprehensive Enterprise Risk Management (ERM) and Internal Control process is deployed throughout the company, supported by appropriate governance and tools. Through this process we identify, assess, mitigate and monitor the company's overall risk exposure while incorporating risk thinking into all strategic decisions and ensuring the deployment of our Internal Control system in every country where we operate.

Risk Management

The ERM process is structured around several coordinated approaches, including bottom-up and top-down risk assessments, complemented with thematic analysis that addresses all our Group's value drivers. These assessments are consolidated and used as a basis for the Group risk map, which is updated every year and reviewed by the Executive Committee and the Audit Committee.

The Risk Management process includes several stages:

• Risk identification & assessment

Management at country and Group level assesses and evaluates the potential impacts and likelihood of the key risks that could have a material adverse effect on the current or future operations of the business in the mid-term, in alignment with Holcim's 2025 strategy. For sustainability and climate-related risks, the horizon has been extended to a longer time frame, in order to consider various threats that might impair the achievement of our 2030 sustainability targets and net zero pledge.

• Risk mitigation

Our risk mitigation strategy begins with a number of internal actions such as those defined by Holcim's Minimum Control Standards which clarify and reinforce the responsibility of businesses in the countries. These are complemented by Holcim's robust fraud prevention program which prevents, deters, and detects fraud. It includes the Holcim Integrity Line, which enables employees anywhere in the world to anonymously exercise their whistleblowing rights and report any breach of our Code of Business Conduct or other concerns.

• Verification & Remediation

Group Internal Audit performs independent assessments of the effectiveness of the Risk Management and Internal Control process. It also assesses the effectiveness of mitigating actions and controls. The annual audit plan drawn up by Group Internal Audit and approved by the Audit Committee takes into account the Group Risk Map and the various analyses described above.

• Monitoring & Reporting

Regular progress on the action plans is followed up by Risk Leads at country level and reported to the Group through the Holcim Risk Management tool. Updates on mitigating actions, controls and overall risk exposure are reported to the Audit Committee and other executive committees. Additional reports on the effectiveness of the Minimum Control Standards are submitted to the Group on a regular basis. Further information is provided in the Internal Control section on pages 138 and 139.

Roles and responsibilities

Holcim has a clear organizational structure to ensure implementation of the Risk Management and Internal Control process, following the governance, policies and framework defined by the Group. This organization is built on the “three lines” model. Under the first line, operational management has ownership, responsibility and accountability for identifying, assessing, managing and mitigating risks. They are equally responsible and accountable for the deployment of the Minimum Control Standards defined by the Group. A Risk Lead is appointed in each country where we operate in order to facilitate and coordinate the whole ERM process. Risk Leads receive a specific training and are the main points of contact for all questions related to the ERM process at country level. The second line consists of Group Corporate functions such as Legal, Compliance, Internal Control, Group Risk Management, Security and Resilience, IT, Sustainable Development and Health, Safety & Environment. These functions monitor and facilitate the implementation of an effective ERM process and appropriate internal controls by operational management, to ensure that the first line is operating as intended. They also assist in the development of policies and controls. The third line is Group Internal Audit (GIA), which as an independent function provides assurance to the Board of Directors and Executive Committee on the effectiveness of the first and second lines and on governance, the Risk Management process and internal controls. Through the Audit Committee and the Health, Safety and Sustainability Committee (HSSC), the Board of Directors oversees the Holcim Risk Management and Internal Control process. The Audit Committee mandate includes the oversight

of Compliance and Risk Management processes and the review of management and internal audit reports on the effectiveness of the Internal Control process and on the performance of the ERM process. The HSSC mandate is to support and advise the Board of Directors on promoting a healthy and safe environment for employees and contractors, as well as on sustainable development and social responsibility. The HSSC approves Holcim’s sustainability and climate-related strategy and major initiatives, including Health and Safety performance and approach to Human Rights. All sustainability topics are overseen against key indicators. More details of the Audit Committee and HSSC are disclosed in the Corporate Governance section on pages 166–167 in the [2023 Integrated Annual Report](#).

• Risk & Integrity Committees

The Risk Committee reports to the Audit Committee and meets twice a year. It is responsible for overseeing the ERM process and the activities performed by assurance functions such as Legal and Compliance, Internal Control, Group Risk Management, Internal Audit, Health, Safety & Environment, IT and Security and Resilience. It includes the Group CFO, the Group Head of Legal and Compliance and Chief Sustainability Officer, who report to the Group CEO and are members of the Executive Committee. It is chaired by the Group CFO and the Head of Internal Audit. The Integrity Committee is responsible for oversight of the effective investigation and remediation of any Code of Business Conduct violations, as well as the rigorous implementation of third-party due diligence and sanctions and export control programs that were launched in 2017. It is chaired by the Group Head of Legal and Compliance.

RISK MANAGEMENT CYCLE

MONITORING AND REPORTING

- Presentation of the Group risk map to the Audit Committee
- Monitoring of new threats and risks by the Resilience & Governance team



RISK ASSESSMENT

- Combined bottom-up and top-down approaches
- All categories of risks included
- Detailed assessments on Climate, Nature, Cyber, Compliance, Security

RISK MANAGEMENT

- Comprehensive library of mitigations in place documented in our assurance map, including countries’ activities, Minimum Control Standards, projects and programs
- Action plans followed-up at country level

MATERIAL PRIORITIES

Holcim is transforming with “Strategy 2025 – Accelerating Green Growth” by expanding Solutions & Products and shifting our geographic footprint to focus on high growth, mature markets.

Throughout this transformation, our stakeholder priorities are constantly evolving, which gives rise to new challenges and opportunities.

In 2022, we fundamentally redesigned our Materiality Assessment to align closely with our Risk Assessment process and significantly broaden the stakeholder groups with which we engaged to capture additional insights. These insights help us to further adjust strategic and operational activities to address those areas where we can have the greatest impact for our stakeholders. The materiality assessment will be updated in 2024 to ensure full alignment with stakeholders priorities and upcoming regulations such as Corporate Sustainability Reporting Directive (CSRD).

We are committed to regularly conducting materiality assessments, and to strengthening and adjusting our process with each exercise. We partnered with DNV Business Assurance to assist us with our materiality assessment by providing independent expertise and guidance on how to best align with relevant standards and best practices.

In expanding our assessment in 2022, we recognized that there was high value in integrating our Risk Management and Materiality Assessment processes to gain different perspectives and deepen our understanding of key risks and opportunities facing the business. We aligned the relevant ESG Material topics with the risk universe by considering the following:

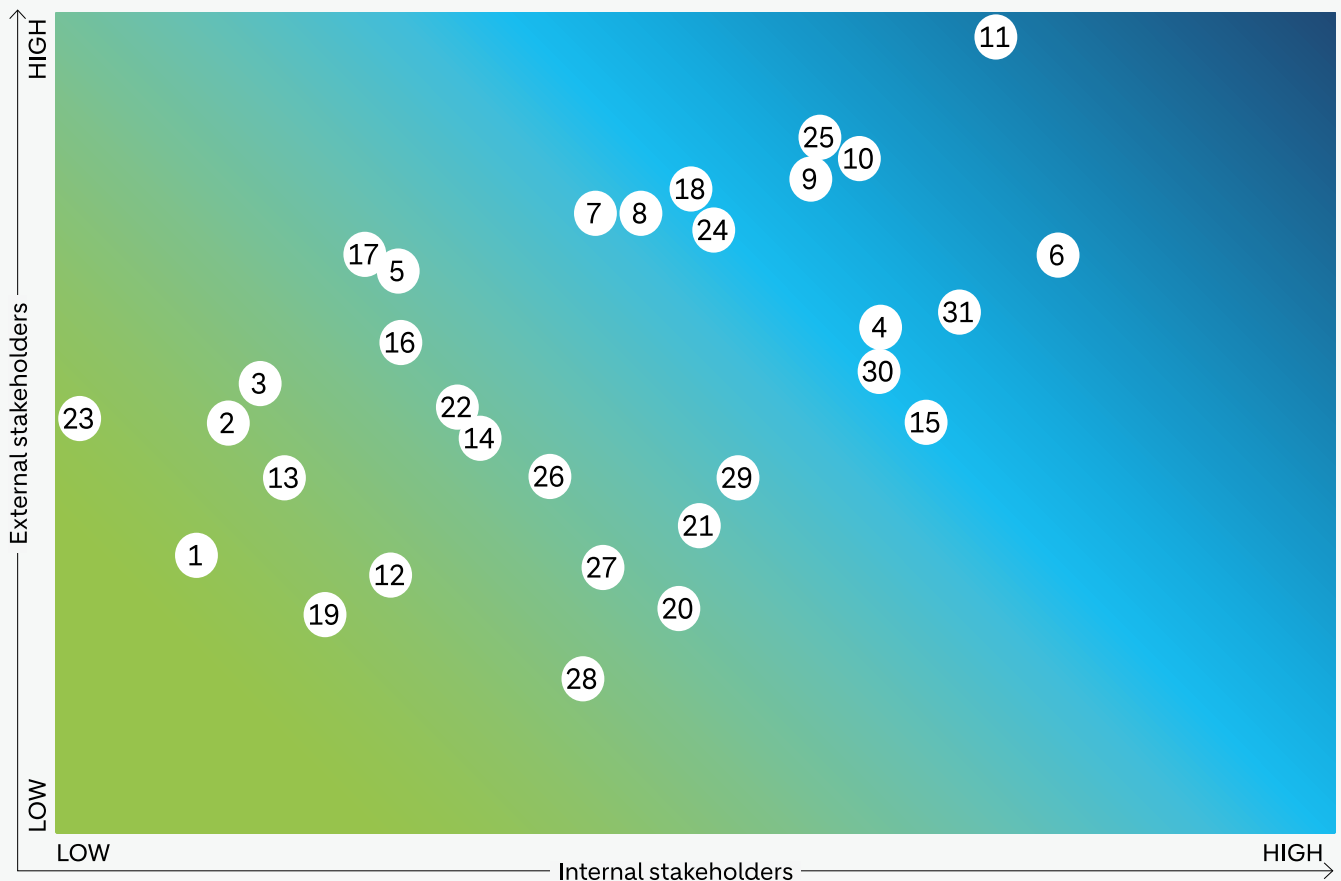
- Stakeholder perspectives: How the issue would change the decision-making and judgment of key stakeholder groups.
- External impact: The impact of the issue on both people and the planet.
- Internal impact: The impact of the issue on Holcim’s performance and business in terms of risks and opportunities that impact corporate value.

By combining these perspectives, Holcim identified the most appropriate and impactful issues to focus the materiality assessment on and align these with the Risk Management process. In future materiality assessments, we will continue to refine the list of topics to ensure that we focus on those that have the greatest impact, in alignment with the perspectives of our key stakeholders, both internal and external.

We collected quantitative inputs from almost 400 stakeholders, both internal and external. This quantitative analysis was complemented by interviews with a broad range of stakeholders, providing a deeper qualitative understanding of their views.

The results show that, four years after the launch of our net-zero pledge, our commitment to become a net-zero company and decarbonize building is fully aligned with our stakeholders’ priorities and assessment of where our key risks and opportunities lie. The long-term business success of Holcim will be in part driven by maintaining this alignment and becoming the global leader in innovative and sustainable building solutions to build progress for people and the planet.

MATERIALITY MATRIX



ENVIRONMENTAL

1. Natural hazards
2. Internal waste management
3. Biodiversity management and quarry rehabilitation
4. Raw materials
5. Water management
6. Energy consumption
7. Air emissions (including dust from sites)
8. Waste derived resources and circular economy
9. Meeting customers' product quality and decarbonization expectations
10. Scaling sustainable product innovation
11. Climate change and greenhouse gas emissions (GHG)

SOCIAL

12. Local community engagements
13. Employee diversity, inclusion, and non-discrimination
14. Responsible procurement
15. Talent attraction, development and retention
16. Labor relations
17. Human rights
18. Health & Safety

GOVERNANCE

19. Data Protection & Privacy
20. Political and economic uncertainties
21. Fair competition
22. Corporate communication and investor relations
23. Security and resilience of people, assets and reputation
24. Corporate governance
25. Business integrity

FINANCIAL

26. Asset integrity and business interruption
27. Major IT outage and cyber security
28. Transportation and logistics
29. Industry shifts (new entrants, price war, digital disruptors, substitution)
30. Sustainable financial returns
31. Portfolio Management, M&A operations, CapEx

STRATEGY DRIVERS

STRATEGIC PRIORITIES



Accelerating Growth



Expanding Solutions & Products



Leading in Sustainability & Innovation



Delivering Superior Performance

OUR SUSTAINABILITY PILLARS



Climate



Circularity



Nature



People

The risks on pages 129 to 137 are considered material to our strategy and our value creation. This list is not exhaustive and represents the principal risks and uncertainties faced by Holcim at the time of the preparation of the 2023 Integrated Annual Report. Climate and nature-related risks are presented in detail on pages 140 to 155. Human rights salient risks are detailed on pages 98 and 99.

Other risks may emerge in the future and/or the ones stated here may become less relevant. Further information is provided in the Corporate Governance section in the [2023 Integrated Annual Report](#) (pages 160 to 179), Management Discussion & Analysis (pages 256 to 281) and Note 14.6 of the consolidated Financial Statements (page 345).

KEY EXTERNAL RISKS

Risk

Potential Impact

Our Response

Market changes

The risk that the economic environment in a given country can significantly change and have an influence on demand for construction and building materials.

Strategic pillars impacted:



Demand for building materials is fundamentally driven by economic growth (or contraction) in a given territory. These changes in underlying demand may impact sales volumes, prices and/or industry structure as many markets are facing long-lasting inflationary pressures coupled with high interest rates that may plague the construction sector. In this context, the development of new products including low-carbon products with a higher added value and a higher price is impaired or slowed down.

Our growth strategy in mature markets such as Europe and North America, while sharpening our footprint with selective divestments in emerging markets, reduces the Group's exposure to markets where economic growth is more volatile. Aligned with our strategy of moving from volume to value, a responsible pricing ensures the profitability of our business is maintained. The progressive development of the Solutions & Products business segment contributes to reinforcing our diversification, with higher opportunities to profit from growing demand in the resilient repair and refurbishment segment along with the increasingly profitable green building and low-carbon solutions market.

Political risks

Holcim operates in many countries across the world and is exposed, directly or indirectly, to the effects of economic, political and social instability such as trade protectionism, foreign exchange volatility, geopolitical tensions, terrorism, civil war and unrest.

Strategic pillars impacted



Economic, social and/or political instability can impact our people, environment, assets and business as well as our reputation. That impact may be direct (e.g. security consequences including kidnapping, assault against our people or attack against our assets) or indirect (e.g. economic uncertainty) and might also increase our exposure to a large range of threats, including some related to compliance, tax, access to raw materials and cash repatriation. Our industry is specifically targeted by activists who can perpetrate operations (e.g. protests, blockade, sabotage) in order to call out the public opinion on the environmental challenge. Those actions are likely to endanger the safety of our people on site, the integrity of our assets and the continuity of our operations. Exacerbated by the rise of misinformation and disinformation worldwide, societal polarization has also the potential to compound the adverse effects of campaigns against our Group and affect our people, assets, and reputation. Also, our broad geographic footprint exposes us to the adverse consequences of shifts in the geopolitical dynamics, which can spark social unrest, government interventionism leading to a reduced access to utilities and raw materials, changes in the sanctions environment and supply chain disruptions.

Countries with the support of relevant Group functions actively monitor the political environment in order to identify and anticipate any adverse event, from activism to civil unrest and interstate conflicts. When necessary, mitigation measures are taken to adapt the Group's activities and protect our people, environment, assets, reputation and legal exposure. Dedicated governance enforced across the Group as well as country-specific action plans have been implemented to enhance crisis management, security of people and assets and business resilience. The organization in place is fully embedded in our security and resilience program in order to enable swift and efficient response in case of a material risk to our people or assets. Our Resilience and Governance program (RaG) is a multifunctional and collaborative team of Subject Matter Experts from existing corporate functions. They are breaking down silos to work together with countries to identify, prepare and respond to a wide range of matters and adverse events that could impact Holcim people, environment, assets, reputation or legal exposure. When relevant, the RaG team initiates dedicated programs such as the monitoring of the election supercycle, and is instrumental in managing geopolitical crises, from the identification to the preparation of our operations (e.g. conflicts in Ukraine or in Israel).

Pandemic and epidemic

Pandemics, epidemics outbreaks of infectious diseases or any other serious public health concerns (such as COVID-19, Ebola, avian flu, SARS, cholera) can affect the health of our people as well as the communities in which we operate.


Strategic pillars impacted:




Public health concerns - in particular pandemics and epidemics - can affect the health of our people as well as the communities in which we operate. In addition, they may negatively affect our activity due to operational constraints and supply chain disruption. Lastly, the adverse macroeconomic effects of public health concerns can affect the value of assets and reduce demand for the Group's products. While the acute phase of the Covid-19 pandemic has passed, recent upticks in infections (e.g. in China, Europe) associated with the inherent uncertainty regarding new variants require a continuous monitoring of the pandemic.

Security & Resilience and Health & Safety teams closely monitor disease outbreaks including (but not limited to) the evolution of the Covid-19 pandemic (e.g. new variants, new waves) in all regions. Guidelines are shared with local teams, (taking into account national and international guidance), to ensure the resilience of our people and operations.

KEY OPERATIONAL RISKS

Risk	Potential Impact	Our Response
<p>Sustainable supply chain</p> <p>Supply chain concerns are getting more and more prominent in line with our purpose to build progress for people and the planet. The boundaries of our supply chain-related risks cover a large range of health & safety, compliance, operational, human rights, climate and nature concerns.</p> <p>Strategic pillars impacted:</p> 	<p>Holcim is devoted to preventing any deviations from its governance principles by its suppliers to protect its reputation, improve business resilience to supply chain disruptions and contribute to creating positive social impacts. Our most material risk exposure lies in Health & Safety and our contractors respecting decent working conditions, protection of the environment as well as strict observance of human rights standards, the reduction of our CO₂ footprint (Scope 3) and our impact on nature (biodiversity and water). Operating in poorly regulated countries increases our exposure to supply chains and requires us to continuously strengthen our monitoring of high risk suppliers. Yet, in the context of growing global integration of supply chains, compliance and reputational challenges are at the top of the agenda wherever we operate.</p>	<p>A comprehensive set of policies and actions have been defined in order to strengthen our contractor and supplier management following a systematic risk-based approach. The Code of Business Conduct for suppliers is part of the contractual agreements with our suppliers; it extensively lists and describes the expectations in terms of ESG compliance in alignment with the OECD Guidelines and derived laws and regulations. A supplier qualification process, covering business integrity, H&S and ESG topics is due for all high ESG risk suppliers, with additional requirements for security services suppliers as per our Security Directive. Through our Sustainable Procurement Program, 93 percent of the procurement spend with high ESG risk suppliers was done with qualified suppliers in 2023. Our procurement decisions also integrate the objective to reduce CO₂ emissions and our dependency on natural resources and negative impacts on biodiversity and water. We implement specific actions on purchased categories identified as having a potential impact on nature, in particular natural sand, other raw materials extracted from earth through mining, packaging and chemicals. Extractive raw materials suppliers are subject to a site (quarry) assessment coupled, wherever needed, with supplier development activities. In high risk countries (following the UN “Human Development Index” and “Freedom House Index”), or for “Sourcing China” suppliers, a proactive monitoring of ESG controversies (with a dedicated solution Prewave) enables us to extend our visibility on potentially risky suppliers. We enable a grievance mechanisms platform for suppliers to raise questions and concerns about Holcim’s business practices (https://integrityline.holcim.com/).</p> <p>➔ Please refer to our Sustainable supply chain on pages 110 to 113 for more details</p>

KEY OPERATIONAL RISKS CONTINUED


Risk	Potential Impact	Our Response
<p>Legal and Compliance risks</p> <p>The risk that the company is found to have violated laws and regulations covering business conduct, such as those that combat bribery, corruption, fraud, unfair competition, breach of trade sanctions or export controls, as well as unauthorized use of personal data. In the ordinary course of its business, the Group is involved in lawsuits, claims of various natures, investigations and proceedings, including product liability, commercial, environmental, health and safety matters, etc.</p> <p>Strategic pillars impacted:</p> 	<p>Impacts include investigation costs, financial penalties, debarment, profit disgorgement and reputational damage. The impact is compounded by the fact that local violations can have an effect on the entire Group.</p>	<p>The Group maintains a comprehensive risk-based compliance program.</p> <p>→ Please refer to pages 119–120 in order to learn more on our compliance program</p> <p>There are several response mechanisms to the risk areas within the scope of the compliance program, including:</p> <ul style="list-style-type: none"> • Business Integrity and Compliance: anti-corruption activities centered on training and awareness, management of third-party risk through targeted due diligence and management of conflicts of interest. • Pricing Integrity and Anti-Trust Compliance: the program focuses on training of high and medium risk exposed employees and on the performance of Fair Competition Reviews (in-depth assessments of risk, based on interviews, document and email reviews). In addition, specific actions (training, instructions) have been implemented to address five risk drivers: participation in trade associations, pricing decisions, market intelligence, contacts with competitors and merger control rules. • Sanctions & Trade Restrictions: the Group trade sanctions compliance program is designed to handle the increasing number of sanctioned parties and growing complexity of sanctions designations across the globe, including but not limited to those administered by the United States of America, the European Union and Switzerland. The Group trade sanctions compliance program is implemented through restricted third-party sanctions screening, dedicated training and targeted communications. We regularly conduct in-country assessments on trade sanctions risks and potential touchpoints with sanctioned parties in the Group's exposed operations. The restricted third-party sanctions screening is performed through state-of-the-art tools for sanctions screening and continuous monitoring of suppliers and customers against worldwide sanctions lists. • Data Protection and Privacy: the Group data privacy and protection program is built around key components to ensure the protection of individuals' personal information. These include: clear and comprehensive privacy policies; strong security measures to protect personal information from unauthorized access, use, or disclosure; employee training on data privacy and protection; technical and organizational measures to protect personal data, such as encryption and access controls; clear procedures for handling data breaches and incident responses, defined rights for individuals to access, correct, or delete their personal information; as well as regular review and updates of the program to ensure that it continues to meet evolving data privacy and security requirements. Group Compliance operates the global whistleblowing system. Group Legal manages all competition investigations, information requests and enforcement cases through a central team. Group Legal also tracks all Group-relevant commercial litigation cases and provides support to the relevant operating companies in defense and dispute resolution. In addition, root cause analysis of disputes and enforcement cases is taken into account in our continuous improvement cycle.

RISK AND CONTROL CONTINUED

KEY OPERATIONAL RISKS CONTINUED





Risk	Potential Impact	Our Response
<p>Energy sourcing (including alternative fuels)</p> <p>The risk that the increase in prices for fuels, electricity or the inability to accomplish planned savings from alternative fuels will impact our production costs. Threats on energy sourcing can have severe consequences on the continuity of our operations and the achievement of our sustainability targets.</p> <p>Strategic pillars impacted:</p> 	<p>An increase in energy prices has the potential to adversely impact the Group's financial performance, as the increase in such costs may not be passed on (fully or partially) in the sales prices charged to customers. In the longer term, depending on the local context, security of sourcing is influenced, if not threatened, by a large range of external factors (e.g. regulations, transport and grid infrastructures, political uncertainties, shortages of refineries) which might disrupt our operations in sole locations where we operate.</p> <p>Holcim's commitment to decarbonization as well as constant pressure on energy prices resulting from CO₂ pricing or taxes will require our operations to reduce dependency on highly CO₂ intensive sources of energy.</p>	<p>We are operating a truly global sourcing concept that enables us to access all potential supply sources and optimize sourcing decisions based on commercial, sustainability, governance and lead-time criteria. Optimizing the fuel mix and energy efficiency, as well as the use of alternative fuels, is a key area of focus at all our plants. At the country level, we use a mixture of spot price and fixed price contracts to reduce the exposure of price volatility. We also continue to enter long-term power purchase agreements/on-site power generation projects to reduce volatility and increase consumption of renewable energy at competitive prices.</p>
<p>Raw materials (including mineral components)</p> <p>The risk that raw materials cannot be supplied at economical cost or suitable quality. As the call for decarbonization impacts our whole supply chain beyond 2030, inflationary pressures or availability issues in raw materials are possible, hence impacting our decarbonization roadmap.</p> <p>Strategic pillars impacted:</p> 	<p>Much of our business depends on the reliable supply of mineral resources, e.g. aggregates, sand and limestone, as well as mineral additives such as slag and fly ash (also called MIC - mineral components). Failure to secure long-term reserves or license and permits as well as to obtain raw materials (including mineral components) from third parties at the expected cost and/or quality may adversely impact variable costs, financial performance and impair our long-term growth outlook. In addition, changing market conditions resulting from lower production of fly ash and slag might limit our ability to reach our CO₂ reduction target in a cost-effective manner. Moreover, significant increases in freight costs (difficulties to find available vessels and fuel prices) might lead to uncompetitive landed costs for MIC, clinker and cement and other raw materials. In the longer term, this might impact the ability to supply raw materials (including innovative binders like calcined clay) in an economically viable way. Our Solutions and Products business segment requires a different set of raw materials, with a large dependency on oil-derived polymers. We are subsequently exposed to the risk of volatility in commodity markets such as oil and a market controlled by a limited number of suppliers leading to volatility in these raw material prices or availability.</p>	<p>In locations where the supply of raw materials is at risk (due to own reserves depletion, permitting issues, poor quality, lack of suppliers and scarcity of certain raw materials), we apply a range of measures including monitoring of the permitting process, strategic sourcing and diversification, changing input mixtures and maintaining minimum long-term reserve levels. When required, we manage international seaborne sourcing, which is an alternative to offset local risks.</p> <p>Regarding mineral components (MIC), availability issues are mitigated in the long term by new formulations, innovative mineral components and the upcycling of Construction Demolition Materials (CDM). To do so, we are continuously developing (ourselves and in cooperation with external suppliers) chemical treatments to enable the use and production of alternative raw materials and new binders such as calcined clay, or CDM with high availability and proven binding capabilities. Encouraged by new regulations, the use of CDM in particular offers promising opportunities for our industry, especially in mature countries (Europe) where volumes are significant.</p>

KEY OPERATIONAL RISKS CONTINUED





Risk	Potential Impact	Our Response
<p>Sustainable products, innovation and technology</p> <p>The risk that insufficient innovation does not secure the competitive advantage of the company by delivering new products, solutions and technologies on a continuous basis. A growing focus on open innovation offers opportunities, especially in the pursuit of our goal of net zero emissions, as well as risks that collaboration with third parties does not provide the expected outcomes.</p> <p>Strategic pillars impacted:</p> 	<p>Innovation is a key factor for long-term success of the company and crucial to maintain our competitive position and fulfill future customer needs, particularly when it comes to low-carbon performance, energy efficiency and circular economy.</p> <p>Robust processes around investments in innovation are required in order to prevent any unwanted scenario such as competition creating disruptive differentiators; at the same time, a fast paced growth without properly integrating teams and processes as part of new acquisitions might also impair the successful development of innovative solutions and products. In addition, a significant event linked to product quality or performance is also a potential risk that ought to be avoided and closely monitored.</p>	<p>Our approach is to meet customer needs along the whole construction value chain by developing and delivering products, solutions and technologies that address today's major challenges of the construction business: achieving energy efficiency, lowering the cost of construction, reducing the environmental footprint and meeting high standards of aesthetics, health, comfort and well-being. Holcim already has an important range of products and brands which can be considered as sustainable low-carbon products and solutions. From our sustainable cement Susteno to the ECOPact line of low-carbon concrete, Holcim offers global solutions with cutting-edge materials and innovation. The Group is continuously developing and introducing new products with lower CO₂ emissions, realizing opportunities of a circular economy and related sustainability performance of products and solutions. Leading the circular economy, Holcim will recycle 10 million tons of construction demolition materials by 2025. In line with our 2025 strategy, Holcim will remain at the forefront of green building solutions, with 25 percent of ready-mix net sales coming from ECOPact, with at least a 30 percent lower CO₂ footprint. ECOPact low-carbon concrete already represents 19 percent of our ready-mix net sales within three years of launch while ECOPlanet low-carbon cement is available in 34 markets. Solutions & Products now account for 21 percent of net sales. In parallel, growing closer to our customers with our Solutions and Products business segment, we will expand our range of integrated solutions and systems from construction and energy efficiency to repair and refurbishment. Also, we will continue to deploy smart technologies, from 3D printing using green mineral components and we will further develop next-generation technologies.</p> <p>Our researchers in our Technology Center in Switzerland and in our Research and Development Center in Lyon, France support our customers with all their building needs from concept to create. Sustainability accounts for two-third of the patent portfolio, with 45 percent directly relating to low-carbon solutions such as carbon capture and innovative low-emissions raw materials.</p> <p>The risk that collaboration with third parties on open innovation does not provide the expected outcomes is mitigated through appropriate legal frameworks and comprehensive project management. Non-protected and protected Intellectual Property (IP) is secured by knowledge management, patents and trademarks. Market intelligence is leveraged to avoid infringement of third-party IP rights.</p>
<p>Health and Safety risk</p> <p>The risk that the company does not adequately protect employees, contractors and third parties from injury, illness or fatality, during both on-site and off-site company related activities.</p> <p>Strategic pillars impacted:</p> 	<p>Impacts include injury, illness or fatality, reputational damage and the possibility of business interruption, with consequences on our finance and business performance. The impact is compounded by the fact that local incidents can have an effect on the entire Group.</p>	<p>We conduct our business in a manner that creates a healthy and safe environment for all stakeholders – our employees, contractors, communities and customers – built on a sound health and safety culture. We believe in visible leadership and personal accountability at all levels and throughout our organization. We maintain a global Health and Safety Management System designed to continuously improve our performance and actively minimize risks in our business. The Group HSE team conducts regular audits to ensure the full deployment of our HSE policy and internal standards in all Holcim countries. Through the Health, Safety & Sustainability Committee, the Board of Directors supports the development of a health and safety culture and oversees the resources and processes to be employed to minimize or eliminate risks related to health and safety (please see page 167 in the 2023 Integrated Annual Report for more details). In addition, our Group Security and Resilience teams provide support each time the situation requires a cross-functional response.</p> <p>In 2023, we focused our approach by conducting successful HSE projects in every country, proving through on-the-ground implementation that “zero is possible”.</p> <p>→ Please refer to pages 92–93 in order to learn how the synergy between the three core elements of our Health, Safety & Environment (HSE) operating model – Critical Risk Management, Workforce Engagement, and Continuous Improvement– has evolved into a foundational strength shaping our performance and organizational culture.</p>

RISK AND CONTROL CONTINUED

KEY OPERATIONAL RISKS CONTINUED





Risk	Potential Impact	Our Response
<p>Information technology and cyber threats risk</p> <p>The risk that arises from the unavailability of critical IT systems and the loss or manipulation of data resulting from cyber attacks, computer malware, infrastructure and network outages, natural disasters or human mistakes.</p> <p>Strategic pillars impacted:</p> 	<p>An information technology failure or cyber security event could lead to financial losses, reputational damage, safety or environmental impacts. The risk has become a major concern because of the constant emergence of new threats and the dramatic increase in frequency and severity of reported cyber attacks in the recent years. IT-related risks expose our company to a larger range of threats, including systems unavailability and data leak, originating from targeted cyber attacks and operational errors. Furthermore, geopolitical tensions and the confirmation of cyberspace being a new area of conflict have increased cyber security concerns.</p>	<p>To prevent major risks related to critical IT infrastructure either operated by the Group or its service providers, Holcim has established policies and procedures for IT security and governance as well as internal control standards that are followed Group-wide for all applicable systems. These include alternative/redundant data centers per region, resilient architecture of critical IT systems, backup recovery procedures and cybersecurity measures to detect unusual activities in our networks. As constant vigilance and awareness throughout the organization is required, our personnel are continually trained to detect and mitigate cyber risks, especially with the continuous development of remote working. Due to the fact that the risk landscape is evolving, the Group's IT risk register is regularly assessed and updated. Additionally, the measures to prevent new risks from occurring are continuously improved and updated as well as regularly audited and controlled by different independent internal departments and external partners.</p> <p>Conflicts worldwide are being monitored by the Resilience and Governance team (refer to Political risk) to identify potential risks in cooperation with the IT Security team and further increase the Group's preparedness to respond to unusual cyber activity potentially targeting Holcim Group.</p>
<p>Joint ventures and associates</p> <p>Holcim routinely acquires other companies or businesses and pursues joint ventures. Since the Group does not control all joint ventures or associates in which it has invested, this may restrict the Group's ability to generate adequate returns and to implement the operating standards and Holcim compliance program.</p> <p>Strategic pillars impacted:</p> 	<p>These limitations could impair the Group's ability to control joint ventures and influence associates effectively and/or realize the strategic goals for these businesses. In addition, this might hamper the ability of Holcim to implement organizational efficiencies and its controls framework, including its full compliance program. It can also impede the ability to transfer cash and assets between subsidiaries in order to allocate assets in the most effective way.</p>	<p>Joint venture partners and associates are within the scope of Holcim's Third Party Due Diligence Directive and Holcim performs risk-based compliance due diligence.</p> <p>In entities where Holcim is not in control, Holcim applies a good faith effort to implement the Holcim compliance program or other risk-proportionate compliance measures.</p>
<p>Employee-related issues</p> <p>The risk that the company does not attract, motivate and retain skilled people in the right places and at the right time to reach its targets. Attraction and retention of talent has become a key issue that pervades across the entire cement and building materials industry which suffers from the competition of more appealing industries.</p> <p>Strategic pillars impacted:</p> 	<p>Some countries are facing long-lasting labor shortages affecting a large range of positions, especially drivers, technical profiles and middle management (mainly in the U.S. and Europe). In the longer term, it is likely that the shift in employee preferences will be more exacerbated, which will force companies to adapt to this new paradigm (revised balance between private and professional lives, development of home-office, satisfaction in the workplace, employees seeking value and purpose at work, etc.). In addition, in some regions (especially in Middle East, Africa, Eastern Europe) the risk is aggravated as qualified labor is increasingly searching for opportunities to expatriate themselves in mature markets.</p>	<p>At Holcim, we ensure that our employees are encouraged to thrive, grow and develop leadership skills at all levels. This starts with empowering our young talent to make a difference with initiatives such as One Young World or the Early Career Leaders Program, and continues with colleagues in more senior roles in the Business School for Emerging Leaders, Advanced Leaders and Senior Leaders. We particularly focus on ensuring that our employees are empowered to meet Holcim's green growth ambition and we develop our senior leadership for a strong commitment to diversity. In Holcim, we have implemented an engagement management strategy. Our second Global Employee Survey has achieved high rates in the engagement index of our countries, which has reflected into lower turnover levels.</p> <p>As the labor risk mostly presents in specific local contexts, all countries deploy talent reviews and succession planning processes to evaluate current and future talents across the year. The outcomes are taken into consideration in the Group talent and succession review. Core human resources processes, like a broad learning portfolio with new programs for young professionals and the online learning platform (Percipio), performance management, leadership development, reward & recognition and talent management are implemented in all Holcim countries and corporate functions. Group HR oversees the quality of deployment of these processes to keep improving the robustness of our talent pipeline; early careers leaders have been identified and followed up at Group level in close association with the countries.</p> <p>Please refer to our People section (pages 86-91) in order to learn how our Group accelerated its transformation in 2023 to support our people strategy for green growth, develop leadership at all levels, democratize learning, drive performance and commit globally to diversity.</p>
<p>Acquisitions and divestments</p> <p>The risk that the company does not identify opportunities in the market at a profitable cost, or fails to successfully carry out acquisitions, mergers, divestments resulting in financial losses and inability to achieve strategic objectives.</p> <p>Strategic pillars impacted:</p> 	<p>As Holcim works to reach 30 percent of our net sales in Solutions & Products by 2025, there is a risk that material acquisitions do not meet the expected results. There is also an uncertainty over the achievement of the expected synergies and the integration of the new entities in our operating model, organizational structure and governance (including our Internal Control framework and compliance program).</p> <p>In connection with disposals made in the past years, the Group provided customary warranties. Holcim and its subsidiaries may receive claims arising from these warranties.</p>	<p>Our M&A process is structured around a robust due diligence process and a detailed gap analysis following post-acquisition (including, but not limited to, strategic, compliance, financial, environmental, legal, tax, commercial, human resources and pension plans streams). Key internal stakeholders are involved with the support of external expertise. Our large geographical footprint combined with the strong cash position of our Group enable us to swiftly respond to identified targets as well as leveraging opportunities for synergies at local level. In the newly acquired entities, our Minimum Control Standards are fully applicable and are implemented following a thorough gap analysis and an integration plan where the particularities and the risks of the new business are analyzed and taken into account in order to design an efficient internal control framework. Our due diligence process also applies to disposals which are closely analyzed by our teams at Group level before the divestment transactions take place. While our company is liable for events which are not under our direct control anymore, the Group closely monitors our exposure and any indication of potential liability is assessed.</p>

KEY FINANCIAL RISKS



Risk	Potential Impact	Our Response
<p>Risk involving credit ratings</p> <p>As in the course of our business we use external sources to finance a portion of our capital requirements, our access to global sources of financing is important. The cost and availability of financing are generally dependent on our short-term and long-term credit ratings.</p> <p>Strategic pillars impacted:</p> 	<p>Factors that are significant in the determination of our credit ratings or that otherwise could affect our ability to raise short-term and long-term financing include: our level and volatility of earnings, our relative positions in the markets in which we operate, our global and product diversification, our risk management policies and our financial ratios, such as net debt to Recurring EBITDA and cash flow from operations to net debt. We expect credit rating agencies to focus, in particular, on our ability to generate sufficient operating cash flows to cover the repayment of our debt. Deterioration in any of the previously stated factors or a combination of these factors may lead rating agencies to downgrade our credit ratings, thereby increasing our cost of financing. Conversely, an improvement in these factors may prompt rating agencies to upgrade our credit ratings. With the development of green finance and growing investor expectations regarding the sustainability of our business model, we anticipate an increasing influence of ESG performance on investors' decision-making process in the near future.</p>	<p>Our Executive Committee establishes our overall funding policies. The aim of these policies is to safeguard our ability to meet our obligations by maintaining a strong balance sheet. This policy takes into consideration our expectations concerning the required level of leverage, the average maturity of debt, interest rate exposure and the level of committed credit lines. These targets are monitored on a regular basis. As a result, a significant portion of our debt has long-term maturity. We constantly maintain unused credit lines to cover at least the next 12 months of debt maturities.</p>
<p>Liquidity risk</p> <p>The risk that the company will not generate sufficient cash and/or will not have access to external funding to meet its obligations.</p> <p>Strategic pillars impacted:</p> 	<p>Lack of liquidity could impact our ability to meet our operational and/or financial obligations.</p>	<p>Subsidiaries are responsible for their own cash balances and the raising of internal and external funding to cover the liquidity needs, subject to guidance by the Group. The Group monitors its liquidity risk by using a recurring liquidity planning tool and maintains cash, readily realizable marketable securities and unused committed credit lines to meet its liquidity requirements. The Group also adjusts liquidity levels to changing market conditions by organizing additional bank loans or issuing bonds. In addition, the strong credit worthiness of the Group allows it to access international financial markets. Please refer to Note 14.6 of the Consolidated Financial Statements on page 345 in the 2023 Integrated Annual Report for details on Holcim debt maturity profile.</p>
<p>Interest rate risk</p> <p>The risk that an investment's value will change due to a change in the absolute level of interest rates, in the shape of the yield curve or in any other interest rate relationship.</p> <p>Strategic pillars impacted:</p> 	<p>Movements in interest rates could affect the Group's financial results and market values of its financial instruments. The Group is primarily exposed to fluctuations in interest rates on its financial liabilities and cash. The Group is also exposed to the evolution of interest rates and credit markets for its future refinancing, which may result in a lower or higher cost of financing.</p>	<p>The exposure is mainly addressed through the management of the fixed/floating ratio of financial liabilities. To manage this mix, the Group may enter into interest rate swap agreements in which it exchanges periodic payments based on notional amounts and agreed-upon fixed and floating interest rates. The Group constantly monitors credit markets. The aim of its financing strategy is to achieve a well-balanced debt maturity profile to reduce both the risk of refinancing and large fluctuations of its financing cost. Please refer to Note 14.6 of the Consolidated Financial Statements on page 345 in the 2023 Integrated Annual Report for additional details</p>
<p>Foreign exchange risk</p> <p>The Group's global footprint exposes it to foreign exchange risks.</p> <p>Strategic pillars impacted:</p> 	<p>Movements in foreign exchange rates could have an influence on the Group's business, results of operations and financial condition. Such translation into the Group's reporting currency leads to currency translation effects, which the Group does not actively hedge in the financial markets. In addition, the statement of financial position is only partially hedged by debt in foreign currencies and therefore a significant change in the aggregate value of such local currencies against the reporting currency may have a material effect on the Group's shareholders' equity. Currency fluctuations can also result in the recognition of foreign exchange losses on transactions, which are reflected in the Group's consolidated statement of income and statement of cash flows. The impact on the expected future economic growth and capital flows in some of these markets may lead to devaluations of the local currencies against the Group reporting currency.</p>	<p>With regard to transaction-based foreign currency exposures, the Group's policy is to hedge material foreign currency exposures through derivative instruments. The Group seeks to reduce the overall exposure by hedging such positions in the market with derivative instruments. These derivative instruments are generally limited to forward contracts or swaps and the Group does not enter into foreign currency exchange contracts other than for hedging purposes. Each subsidiary is responsible for managing the foreign exchange positions arising as a result of commercial and financial transactions performed in currencies other than its functional currency with the support of the treasury department. The Group's activities expose it to foreign exchange risk notably in countries with inflation indices reflecting a three-year cumulative inflation rate exceeding 100 percent. In these countries, qualified as hyperinflationary countries, the Group applies a financing strategy that reduces the Group's exposure to a minimum by having the country manage its funding needs in an autonomous way. As of 31 December 2023, Argentina and Lebanon are considered as hyperinflationary countries. The Group is also exposed to countries with limited availability of hard currency as Egypt, Nigeria and Bangladesh where hedging and repatriation of cash is difficult or not possible.</p>

RISK AND CONTROL CONTINUED

KEY FINANCIAL RISKS CONTINUED

Risk	Potential Impact	Our Response
<p>Credit risk The risk that our customers default on payment, resulting in collection costs and write-offs.</p> <p>Strategic pillars impacted:</p> 	<p>The failure of counterparties to comply with their commitments could adversely impact the Group's financial performance.</p>	<p>The Group periodically assesses the financial reliability of customers. Credit risks, or the risk of counterparty default, are constantly monitored. Counterparties to financial instruments consist of a large number of established financial institutions. The Group does not expect any counterparty to be unable to fulfill its obligations under its respective financing agreements. The maximum credit risk exposure is represented by the carrying amount of each financial asset, including derivative financial instruments, in the consolidated statement of financial position. Please refer to Note 14.6 of the Consolidated Financial Statements (Financial risks associated with operating activities, page 345 in the 2023 Integrated Annual Report) for additional details. In the current macroeconomic context and the risk of a slow down of activity in regions where the Group operates, the Group closely monitors the risk of increase in bad debts.</p>
<p>Insurance Our industry is subject to a wide range of risks, not all of which can be transferred or adequately insured. The Group purchases insurance cover for a broad range of operational risks to protect its assets and itself against third-party liabilities, commensurate with the risk exposure.</p> <p>Strategic pillars impacted</p> 	<p>The Group could be impacted by losses where recovery from insurance is either unavailable or non sufficiently reflective of the incurred loss.</p>	<p>We transfer our insurable risks with international insurers or reinsurers of high repute, including our internal captive reinsurance companies. We continuously monitor the evolving risk environment to determine whether additional insurances will need to be considered.</p>
<p>Group's pension commitments The Group operates a range of defined benefit pension schemes and similar contingent obligation schemes across various countries. The assets and liabilities of these schemes may experience significant volatility based on prevailing market conditions.</p> <p>Strategic pillars impacted:</p> 	<p>These unforeseen deficits may require cash contributions to fund unrecoverable amounts which could vary significantly from year-to-year due to external factors. These contributions may in turn impact the Group's financial results.</p>	<p>To mitigate these risks, where possible, the Group has taken measures to close, freeze, and terminate these defined benefit pension schemes and has deployed scheme-appropriate asset allocations in order to mitigate volatility and optimize investment returns.</p>
<p>Multi-employer pension plans (MEPP) The Group participates in several union-sponsored multiemployer pension plans in the United States. These plans are susceptible to substantial deficits arising from market conditions, business decisions, trustee decisions, plan failures, and the actions and decisions of other contributing employers. The Group, however, has minimal control over the management of these plans.</p> <p>Strategic pillars impacted</p> 	<p>There is material risk that substantial cash contributions could be required in the future to meet outstanding obligations under these plans. Fulfilling the Group's obligations may have a material impact on the Group's reported financial results. Currently, the financial condition of these plans is not disclosed in the Group's financial reports.</p>	<p>A comprehensive review of all these plans has been initiated with the primary objective of gaining a thorough understanding of their financial circumstances. The aim is to explore all available options to mitigate risks and reduce the Group's actual and potential financial obligations. It's important to note that the Group's ability to take action is constrained, as participation in these plans is contingent upon negotiations with bargaining unions.</p>

KEY FINANCIAL RISKS CONTINUED

Risk	Potential Impact	Our Response
<p>Goodwill and asset impairment</p> <p>Significant underperformance in any of the Group's major cash-generating units or the divestment of businesses in the future may give rise to a material write-down of goodwill or assets.</p> <p>Strategic pillars impacted:</p> 	<p>A write-down of goodwill or assets could have a substantial impact on the Group's net income and equity.</p>	<p>Indicators of goodwill or asset impairment are monitored closely through our reporting process to ensure that potential impairment issues are addressed on a timely basis. Detailed impairment testing for each cash-generating unit within the Group is performed prior to year-end or at an earlier stage when a triggering event materializes. The Audit Committee reviews once a year the goodwill and asset impairment process.</p> <p>In the context of growing challenges posed by the transition to a low-carbon economy, the Group makes estimates and assumptions on climate change and how it might impact our operations and cash-flow projections. We continuously reevaluate those assumptions in a way that is consistent with our assessment of climate-related risks, our commitments to investors and other stakeholders and the climate-related regulations in place. Our cash flow projections are aligned with the commitment to reach our 2030 sustainability targets and in accordance with the climate-related regulations currently in place notably in Europe.</p>
<p>Tax</p> <p>Our business operations are subject to numerous income taxes as well as duties and other taxes that are not based on income such as sales or value-added taxes, payroll taxes, etc. imposed by state and local governments. Significant judgment is often required in determining our annual tax charges and in evaluating our tax positions. Although we believe our tax estimates are reasonable, the final determination of tax audits and any related disputes could be materially different from our historical tax provisions and accruals.</p> <p>Strategic pillars impacted:</p> 	<p>Due to the uncertainty associated with tax matters, it is possible that, at some future date, liabilities resulting from changes in legislation, interpretation of existing tax rules and regulations, and /or audits or litigations could have a material adverse impact on our financial results and cash flow. Governmental authorities in the countries where the Group operates may increase or impose new income taxes or indirect taxes, or revised interpretations of existing tax rules and regulations, including as a means of financing the response to economic shocks or the threats of recession. In particular, a number of countries have adopted the new OECD minimum tax rules (pillar 2) with effect from 1 January 2024. These rules are designed to ensure that multinational enterprises pay a minimum tax of 15 percent on the local income arising in each jurisdiction where they operate. In the future, this may lead to an increase in the income tax expense as well as audit and/or litigation risks.</p>	<p>Risks are reviewed and assessed on a regular basis in light of ongoing developments with respect to tax audits and tax cases, as well as ongoing changes in legislation and tax laws. The Holcim Tax Directives provide binding rules for all countries where we operate, and the Group Tax team continuously works with Group Internal Control on aligning, improving and implementing processes and controls within Group Tax and countries. It is also continuously developing and acquiring the right in-house skills.</p>

RISK AND CONTROL CONTINUED

Internal Control

Holcim's Internal Control framework defines Minimum Control Standards to clarify and reinforce the responsibility of businesses in the countries. Every operating company and business in our organization must follow these standards, which are equally applicable at Group level. There is clear guidance and consequence management if they are not met completely. Minimum Control Standards are managed and checked independently by our Internal Control team along with business process owners and control owners in all our businesses across the globe. Our Internal Control process is in accordance with the Swiss Code of Obligations and Swiss Code of Best Practices for Corporate Governance. The Holcim Internal Control system aims to give the Board of Directors and management reasonable assurance concerning the reliability of financial reporting, compliance with laws and internal regulations, and the effectiveness and efficiency of major company processes and controls. Each Holcim employee has an important role in running the Internal Control System to ensure the implementation and the effectiveness of internal controls.

Group Internal Control Environment

Holcim aims to have an effective Internal Control system at each level of responsibility and promotes a culture of robust internal control, supported by the commitment of the Board of Directors and management. Continuous training efforts are carried out throughout the company with a particular focus on exposed persons when necessary. The Minimum Control Standards are used as a baseline for mandatory compliance within the Group and the main reference for the Holcim Corporate Governance Framework. The following key documents are part of the Minimum Control Standards and support the internal control environment:

- The Group Delegated Authorities which define approving authorities and thresholds within the Group.
- The Code of Business Conduct which covers guidance and provides examples to help employees when confronted with challenging situations.
- The Code of Business Conduct for Suppliers.

Risk identification and analysis

The approach implemented by the Group relating to identification and analysis of risks is described on pages 124–125.

Minimum Control Standards

The Minimum Control Standards cover the following core business processes, going beyond accounting and finance:

Governance & Compliance: Compliance with laws, regulations and Code of Business Conduct, Board of Directors secretarial, Health, Safety & Environment, risk assessment and mitigation, segregation of duties, delegation of authorities, review of litigation, disputes, and personal data protection.

Accounting & Consolidation: Compliance with accounting principles including best practices from the reconciliation of accounts to consolidation of financial statements and submission of Group reporting requirements and statutory financial statements.

Tax: Tax risk assessment and reporting, tax filings and payments, deferred and income tax calculations, transfer pricing and non-income (indirect) taxes.

Treasury: Bank relations, secure handling of payments, financial instruments, borrowings and commitments and foreign exchange, interest rate, commodities risks monitoring and hedging.

Fixed Assets: Management of titles, licenses and permits, rehabilitation and restoration provisions, classification and depreciation of property, plant and equipment and physical verification.

Inventory: Physical stock take (spare parts and materials) and inventory provisions and write-offs.

Revenue: Master data, price management, customer credit limits, accounts receivable.

Expenditure: Master data, supplier qualification, 3-way match and direct vendor invoices, supplier payments and accruals for expenditures.

HR: Employee management (onboarding, transfers, offboarding), payroll, compliance with local labor laws and employee pension & benefit plans.

IT: Information security management and IT service management.

Sustainability: Environmental impact and Social impact.

Operational technology: Operational technology (OT) security baseline controls for OT systems and industrial applications, and OT infrastructure (hardware, operating system, database, network, interfaces) in all operating plants and sites.

Internal Control monitoring throughout the Group

The Group is committed to maintaining high standards of internal control. It tests and documents adherence to Minimum Control Standards. These activities are implemented at country and Group levels and encompass:

- A description of key processes affecting the reliability of the Group's financial reporting, and that of the parent company
- A detailed description of mandatory controls defined in the Group's Minimum Control Standards
- Tests of controls to check the operational effectiveness. Group Internal Control provides each entity with clear guidance and testing methodology
- An internal certification process twice a year to review the main action plans in progress and confirm management responsibility at country and Group levels for quality of both internal control and financial reporting
- A formal reporting, analysis and control process for the information included in the Group's Integrated Annual Report

The implementation of action plans identified through the activities described above, as well as through internal and external audits, are followed up by relevant Senior Management. The outcome of such procedures is presented to the Audit Committee. Internal control is monitored at all levels of the Group. The roles of key stakeholders are described below:

Board of Directors and Board Committees

The Board of Directors through the Audit Committee reviews management's and the internal auditor's reports on the effectiveness of the systems for internal control. The Audit Committee shall form its own opinion on the Internal Control system, Risk Management and on the state of compliance within the company.

Executive Committee

The Executive Committee steers the effective implementation of the Group's Internal Control system, through:

- The monitoring and follow-up of internal control procedures performed throughout the Group, and in particular the follow-up of identified action plans. Periodic presentations on internal control are submitted to the Executive Committee
- The review of the country's Minimum Control Standards and certification twice a year.

Group functions

Group functions leaders, including in particular managers of the Group Finance function, have been designated at Group level as business process owners, with responsibility for:

- Documenting their processes at Group level including product line specifics and verifying that the Internal Control Standards for such processes are effectively implemented
- Defining and updating the standards of internal control applicable to countries.

Countries

Internal Control is under the direct responsibility of the Executive Committee for each country.

Internal Control Managers are appointed in each country to support the identification of risks, the implementation of the Minimum Control Standards and to ensure procedures related to internal control over financial reporting are implemented. Their activities are coordinated by the Group Internal Control department. Countries report their Internal Control assessments to the Group twice a year through the Internal Control system and sign certification letters. Any exception to the Minimum Control Standards needs to be documented, mitigated and approved by the relevant Group Function and Group Internal Control.

Group Internal Control department

The Group Internal Control department is in charge of overseeing Internal Control and monitoring all procedures related to internal control over financial reporting. This department manages the Minimum Control Standards mentioned above and coordinates the network of Internal Control Managers within countries. It supports countries and the Group functions in the implementation of such standards as well as the documentation and tests of Minimum Control Standards. Group Internal Control designs and coordinates the annual certification process to confirm management responsibility at each relevant level of the Group organization on the quality of both internal control and financial reporting. The outcome of this certification process is presented to the Group Chief Financial Officer for validation prior to presenting it to the Audit Committee.

Group Internal Audit

The Group Internal Audit department is responsible for performing an independent assessment of the quality of internal control at all levels of the organization following the annual audit plan approved by the Audit Committee. The main observations and findings observed during the audit assignments are reported periodically to the Audit Committee. For more information, please refer to Corporate Governance on page 170 in the [2023 Integrated Annual Report](#).

CLIMATE AND NATURE RISKS AND OPPORTUNITIES

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

Identifying risks and opportunities

Our climate risk and opportunity assessment is embedded in our Enterprise Risk Management (ERM) process, as described in the Risk and Control section (pages 124–125). We have tailored our approach to align with best practices and recommendations of the Task-force on Climate-related Financial Disclosures (TCFD). This enables a bottom-up assessment of climate risk and opportunities by each country.

Globally, as the political and industrial agenda moves firmly towards green growth, we see ambitious initiatives such as EU Green Deal and the U.S. Inflation Reduction Action that aim at decoupling economic growth from carbon emissions and resource use. Due to this shift in the political agenda, the risks and opportunities in relation to emerging climate and resource-related policies are a key element of our ERM process. This includes a comprehensive climate risk and opportunity assessment including (but not limited to) regulation and public policy scenarios, economic assumptions and project contingencies for significant CapEx projects such as those relating to carbon capture, utilization and storage.

Short- and medium-term assessments

Climate risks and opportunities are assessed over both the short (< three years) and medium term (< ten years) in alignment with our 2030 sustainability targets. Long term risks and opportunities (up to 2050) have been assessed as part of our scenario planning (pages 156–159), where we have tested the resilience of our strategy, as well as the opportunities offered by innovative technologies.

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

CLIMATE RESILIENCE AND ADAPTATION PROGRAM

The Group has implemented a climate resilience and adaptation program to identify and mitigate the potential impacts of current and future physical climate risks on our people, economic activities, assets and on nature. Our technology solution uses the climate scenarios of the Intergovernmental Panel on Climate Change (IPCC). The program identifies projected site-level risks over a range of climate pathways and time periods. This year we have increased the coverage of our assessment to include our cement plants (142) as well as 39 Solutions & Products sites.

[→ Read more about the program on page 149](#)

Monitoring and reporting

At country level, the risk assessment involves all business areas. Involvement of the country Executive Committee and country CEO is required before submission to 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 the potential risks arising from the strategic initiatives or projects that might occur in the next three to ten years. At Group level, the country risk assessments are consolidated and adjusted, taking into consideration insights from stakeholders at Group level, allowing both local and global impacts to be considered.

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.



TASKFORCE ON NATURE-RELATED FINANCIAL DISCLOSURES (TNFD)

Holcim takes a transparent, science-driven and rigorous approach to its reporting, which includes best practices in relation to recommendations of the Taskforce on Nature-Related Financial Disclosures (TNFD). We are now expanding our nature disclosures as an early adopter of the TNFD.

- Using the tool Exploring Natural Capital Opportunities, Risks and Exposure (ENCORE), we were able to confirm that our most material nature-related impacts and dependencies (water use, land use including biodiversity, solid waste and greenhouse gas emissions) are identified in our overall ERM process and materiality assessment, and are integrated in the company strategy.

- Leveraging our annual risk assessment exercise, we identify short- to medium-term threats at local level. This enables the operations to anticipate and adapt their business strategy in order to reduce, for example freshwater withdrawal, engage with key local stakeholders and prepare for potentially more stringent regulations and new market conditions. In order to complement this bottom-up assessment, we leverage the latest technology for biodiversity and ecosystem mapping and anchor the nature risk and opportunity assessment as part of our climate resilience and adaptation program, which also includes a detailed view of the nature-related dependencies and impacts of our operations.
- We believe that our strong governance based on our Health, Safety and Sustainability Committee, coupled with our nature strategy with measurable water and biodiversity commitments, places our company in a favorable position to implement the full scope of the TNFD recommendations in 2024.

TCFD/TNFD ADOPTION TIMELINE

Holcim's journey towards implementing and promoting Taskforce on Nature-Related Financial Disclosure (TNFD) and Taskforce on Climate-Related Financial Disclosures

2018

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

2021

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

2023 and beyond

Early adopter of the TNFD framework
Leveraging the integration of TCFD into our ERM process, we are ramping up on the implementation of TNFD recommendations. A gap analysis was performed and we started to fully embed all the elements of Nature into our ERM process, to ensure full compliance with TNFD in 2024.

2020

Participation to 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.

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 explaining in great detail our decarbonization roadmap. In 2023, our second Climate Report received a 95.75 percent advisory vote in favor from our shareholders.

CLIMATE AND NATURE RISKS AND OPPORTUNITIES CONTINUED

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

GOVERNANCE	<p>Board oversight</p> <ul style="list-style-type: none"> Refer to “Holcim governance approach Climate and Nature-related risks and opportunities”, page 167, “Information and control instruments of the Board of Directors,” page 169, “Long Term Incentives”, page 201, and “Risk and Control” > Roles and responsibilities, page 221 	<p>Management’s role</p> <ul style="list-style-type: none"> Refer to “Risk and Control” > “Roles and Responsibilities,” page 221 <p>Organization’s engagement with local stakeholders</p> <ul style="list-style-type: none"> Refer to “Human Rights”, page 140
STRATEGY	<p>Identification of nature-related dependencies, impacts, risks and opportunities over the short, medium and long term</p> <ul style="list-style-type: none"> Refer to “Material Priorities”, pages 222–223, “Climate and Nature Risks & Opportunities”, pages 236–251 <p>Effects nature-related dependencies, impacts, risks and opportunities have on the organization</p> <ul style="list-style-type: none"> Refer to “Our Approach”, pages 60–61, “Climate and Nature Risks & Opportunities”, pages 236–251 	<p>Resilience taking into account different scenarios</p> <ul style="list-style-type: none"> Refer to “Climate and Nature Risks & Opportunities”, pages 236–251, “Scenario Analysis”, pages 252–255 <p>Location of assets and activities on direct operations, upstream and downstream that are in priority locations</p> <ul style="list-style-type: none"> Refer to our Sustainability Performance Data Tables on pages 406–407
RISK AND IMPACT MANAGEMENT	<p>Identification and prioritization of impacts, dependencies, risks & opportunities in direct operations</p> <ul style="list-style-type: none"> Refer to “Our Approach”, pages 60–61, “Material Priorities”, pages 222–223, “Climate and Nature Risks & Opportunities”, pages 236–251 <p>Identification and prioritization of impacts, dependencies, risks & opportunities in upstream and downstream value chain</p> <ul style="list-style-type: none"> Refer to “Climate and Nature Risks & Opportunities”, pages 236–251, “Measuring Our Value”, page 264 	<p>Managing impacts, dependencies, risks & opportunities</p> <ul style="list-style-type: none"> Refer to “Climate and Nature Risks & Opportunities” section, pages 236–251 <p>Integration with overall risk management processes</p> <ul style="list-style-type: none"> Refer to “Risk and Control” section, pages 220–255, “Information and control instruments of the Board of Directors,” page 169, “Measuring Our Value”, page 264
METRICS AND TARGETS	<p>Metrics to manage risks and opportunities</p> <ul style="list-style-type: none"> Refer to “Climate and Nature Risks & Opportunities”, pages 236–251, Sustainability Performance Data Tables on pages 403–411 <p>Metrics dependencies and impacts on nature</p> <ul style="list-style-type: none"> Refer to “Our Approach”, pages 60–61, Sustainability Performance Data Tables on pages 403–411 	<p>Targets and goals</p> <ul style="list-style-type: none"> Refer to the “Our Approach”, pages 60–61, Sustainability Performance Data Tables on page 403

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

GOVERNANCE	<p>Board oversight</p> <ul style="list-style-type: none"> Refer to “Holcim governance approach for climate and nature-related risks and opportunities”, page 167, “Information and control instruments of the Board of Directors,” page 169, and “Risk and Control” section > Roles and responsibilities, page 221 	<p>Management’s role</p> <ul style="list-style-type: none"> Refer to “Risk and Control” section > “Roles and Responsibilities,” page 221 	
STRATEGY	<p>Risks and opportunities over the short, medium and long term</p> <ul style="list-style-type: none"> Refer to “Climate and Nature Risks & Opportunity” section pages 236–251 	<p>Impact on the organization’s business, strategy and financial planning</p> <ul style="list-style-type: none"> Refer to “Risk and Control” section, pages 220–255 and “Climate and Nature Risks & Opportunity” section pages 236–251 	<p>Scenario planning</p> <ul style="list-style-type: none"> Refer to our Climate and Nature Risk & Opportunity section > Scenario planning, pages 252–255
RISK MANAGEMENT	<p>Climate change-related risks identification and assessment</p> <ul style="list-style-type: none"> Refer to “Risk and Control” section, pages 220–255 and “Climate and Nature Risks & Opportunity” section pages 236–251 	<p>Climate change-related risks management</p> <ul style="list-style-type: none"> Refer to “Risk and Control” section, pages 220–255 and “Climate and Nature Risks & Opportunity” section pages 236–251 	<p>Integration into overall risk management</p> <ul style="list-style-type: none"> Refer to “Risk and Control” section, pages 220–255 and “Information and control instruments of the Board of Directors,” page 169
METRICS AND TARGETS	<p>Reporting CO₂ metrics</p> <ul style="list-style-type: none"> Refer to our Sustainability Performance Data Tables on pages 403–405 	<p>Details Scope 1, 2 and 3</p> <ul style="list-style-type: none"> Refer to our Sustainability Performance Data Tables on page 405 	<p>CO₂ targets</p> <ul style="list-style-type: none"> Refer to our Sustainability Performance Data Tables on page 403

↩ All page references refer to the [2023 Integrated Annual Report](#)

CLIMATE RISKS AND OPPORTUNITY SUMMARY TABLE

Our climate risk and opportunity assessment has been performed following the TCFD framework.

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

We believe that the risks and opportunities presented here are the most material ones for our company, although other risks or opportunities might materialize, especially as a consequence of the evolution of policy, economic or technological landscapes.

RISKS	
Policy and Legal	Ineffective 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

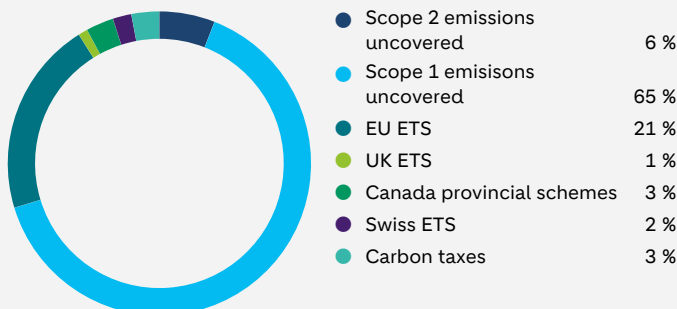
OPPORTUNITIES	
Resource efficiency	Accelerating circularity in construction
Energy source	Access to competitive decarbonized energy
Products / services	Decarbonizing the built environment
Markets	Growing demand for low-carbon and climate resilient solutions and products

RISK INEFFECTIVE CLIMATE POLICIES

Description	Potential Impact	Our Response
<p>The shift to a decarbonized business model requires strong climate regulations, such as the EU ETS (complemented with the Fit for 55 package) with stable, fair and reliable CO₂ prices. In the long term, the attitudes towards climate change outside the EU, especially in the U.S., will be a tipping point for the achievement of our net zero commitments.</p>	<p>Even though the political and industrial agenda is firmly moving toward green growth, ineffective collective action against climate change in the long run would create a misalignment between our efforts to reach net-zero emissions and the regulatory framework, resulting in a competitive disadvantage. On the contrary, more stringent CO₂ regulations, and the associated set of environmental measures, would reinforce our competitive advantage as we decarbonize following our ambitious emissions targets. As the most advanced regulatory environment worldwide for the climate transition, the European Union recently adopted a Carbon Border Adjustment Mechanism (CBAM) as a central engine of the low-carbon transition. However, it will require a diligent and “watertight” implementation (effectively closing all circumvention routes) to establish the needed effective, fair and reliable level playing field on carbon costs between domestic manufacturers and importers and protect the competitiveness of the European cement players. This forms the central pillar of the low-carbon business case and is fundamental to our ability to invest on a large scale in the deployment of low-carbon technologies and products. In the U.S., although there is no regulatory framework comparable to the European ETS, the political agenda is also moving toward green growth, with recent initiatives, such as the Inflation Reduction Act in 2022, which create an overarching incentivising environment to deploy low-carbon and resource efficient technologies at scale. 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 the communication to the financial markets. Any new regulation that creates a robust environment that encourages direct investments towards sustainable projects and helps scale up sustainable development towards the objectives of the European Green Deal represents an opportunity for our Group.</p> <p>Impacts on financial reporting</p> <p>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.</p>	<p>Our CO₂ 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.</p> <p>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 in order to assess our exposure to new CO₂ 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 U.S. 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.</p> <p>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 and enables us to accelerate the deployment of low-carbon solutions in order to execute and meet the objectives of our decarbonization roadmap. With that perspective, we support globally the enhancements of the regulatory environment aiming to:</p> <ul style="list-style-type: none"> • 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.

RISK INEFFECTIVE CLIMATE POLICIES CONTINUED

OVERVIEW OF OUR EXPOSURE TO CO₂ REGULATIONS



- Currently, 29 percent of our emissions are exposed to CO₂ 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 CO₂, as well as waste management regulations.
- Europe is the most advanced region, with a mature Emissions Trading Scheme (ETS) which incentivizes carbon reduction initiatives. Coupled to 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. Yet, 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 towards 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 CO₂ 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.

RISK SLOW MARKET ACCEPTANCE FOR LOW-CARBON PRODUCTS AND SOLUTIONS

Description	Potential Impact	Our Response
<p>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 in case the Group is unable to build a strong credibility with its customers, document and back-up environmental claims, develop strategic partnerships or promote a marketing and product-led approach within the Group.</p>	<p>A slow market acceptance for low-carbon products and solutions could lead to revenue losses due to reduced demand and limitations to improvements in margins. While there is no viable substitute to cement on a global scale that is sustainable, affordable and local, an increased pressure to decarbonize the built environment may support a growing demand for low-carbon products and solutions, thus potentially increasing our market share in the range of low-carbon cement and sustainable solutions.</p> <p>Impacts on financial reporting Impairment testing is performed at the cash generating unit (CGU) level and in assessing the valuation of a CGU, future cash flows have been 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 are based. Business plans used for the recognition of deferred tax assets have been aligned with those used in the impairment process, taking into account climate-related impacts.</p>	<p>Our approach is to meet customer needs along the whole construction value chain by developing and delivering solutions that address today's major construction challenges (scarcity of resources, sustainable and resilient infrastructure, urbanization), turning sustainable growth into profitable growth.</p> <p>We offer our customers advanced sustainable solutions to best meet their needs and have already expanded our multi-billion brands delivering premium margins. We have built billion-dollar low-carbon brands from ECOPact concrete and ECOPlanet cement which are sold at a range of low-carbon levels. By 2030, Holcim will grow both brands, which offer customers at least 30 percent less CO₂ 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. We will also grow our low-carbon concrete from 19 percent in 2023 to above 25 percent of Group Ready-Mix Net Sales by 2025. Where possible, our solutions are independently verified through Environmental Product Declarations (EPDs), which validate the environmental profile of our product and ensure transparency.</p>

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

Description	Potential Impact	Our Response
<p>The inability to deliver Carbon Capture Utilization and Storage (CCUS) projects or develop necessary technologies that meet both technical and financial expectations could prevent Holcim from achieving its decarbonization targets.</p>	<p>The successful scaling up of CCUS relies on assumptions and projections regarding external factors such as compatibility with CO₂ usage opportunities, climate regulations, market acceptance of low-carbon products, the existence of large transportation infrastructure and other aspects of viability and scalability. In addition, there are contingencies related to the management of the projects especially with regards 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 CO₂, 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 a loss of leadership in the decarbonization journey.</p> <p>The pathway from 2030 to 2050 also integrates a large range of both new and established 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 CO₂ 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 CO₂ footprint.</p> <p>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.</p>	<p>We investigate every opportunity, at every stage of a building's life cycle, to eliminate emissions and build smarter and better. Leveraging on proven processes and existing technologies, we are optimizing our own consumption of resources, using low-carbon energy and fuel, and reducing our water use.</p> <p>In line with our 2025 strategy, we accelerate 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). As an example, we launched in February 2023 Europe's first calcined clay low-carbon cement operation in Saint-Pierre-la-Cour, France, enabling us to deliver ECOPlanet low-carbon cement with 50 percent lower CO₂ footprint. We also launched ECOCycle®, a proprietary platform to drive circular construction at scale across key metropolitan areas.</p> <p>Furthermore, 2023 was a year the Group successfully demonstrated its ability to firmly accelerate its global transition to a net-zero future especially with the ramping up of CCUS projects, with six full-scale CCUS projects across Europe having been selected for grants from the European Union (EU) Innovation Fund to capture five million tons of CO₂ by 2030. We have a solid portfolio of CCUS projects globally. In Europe, we have additional projects in advanced stages of planning. 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 CO₂ by the chemical industry) and drive a significant shift from CO₂ storage to CO₂ utilization, improving the profitability of CCUS and offering new outlooks for this business model. Holcim also continues to explore promising opportunities such as smart design, novel binders, kiln electrification and use of hydrogen.</p>

HARNESSING PROMISING CCUS PROJECTS TO REACH NET ZERO

While it is clear that no single solution will be scalable at all locations, as different environments present different conditions, there is a risk that we are not fully benefiting from the promising opportunities offered by the CCUS, hence our decarbonization agenda would be compromised. For that 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 in order to implement CCUS in locations taking into account the local context (existence and reliability of local infrastructure for CO₂ transportation or storage, industry partners, economic environment, regulatory frameworks).

The successful deployment of CCUS technology is underpinned by an 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 or the communities where we operate throughout the full value chain:

- Energy consumption: capturing CO₂ 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, where a large portion of the water is needed for cooling purposes, and may generate wastewater. Through the implementation of efficient closed-loops 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 CO₂ storage facilities. The concerns related to the safety of storing CO₂ 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 a both planned and opportunistic timing of numerous CCUS projects, starting in locations where the context is the most relevant, especially in jurisdictions which are already proactively supporting the CCUS technology, or where infrastructure and geographies for transportation and storage are already present. Accelerating on the transition to a decarbonized economy, Holcim responsibly advocates for both onshore storage and re-usage of CO₂. We are actively partnering with stakeholders who support the transition to a decarbonized economy, such as governments, industry bodies or equipment suppliers, to enable the development of conditions for success. Understanding the key success factors from the initial projects in Europe and North America, we will provide an environment that will facilitate the implementation of CCUS in plants where the opportunities for CCUS are currently being developed.

➔ Please refer to pages 52–53 for more details regarding our CCUS roadmap

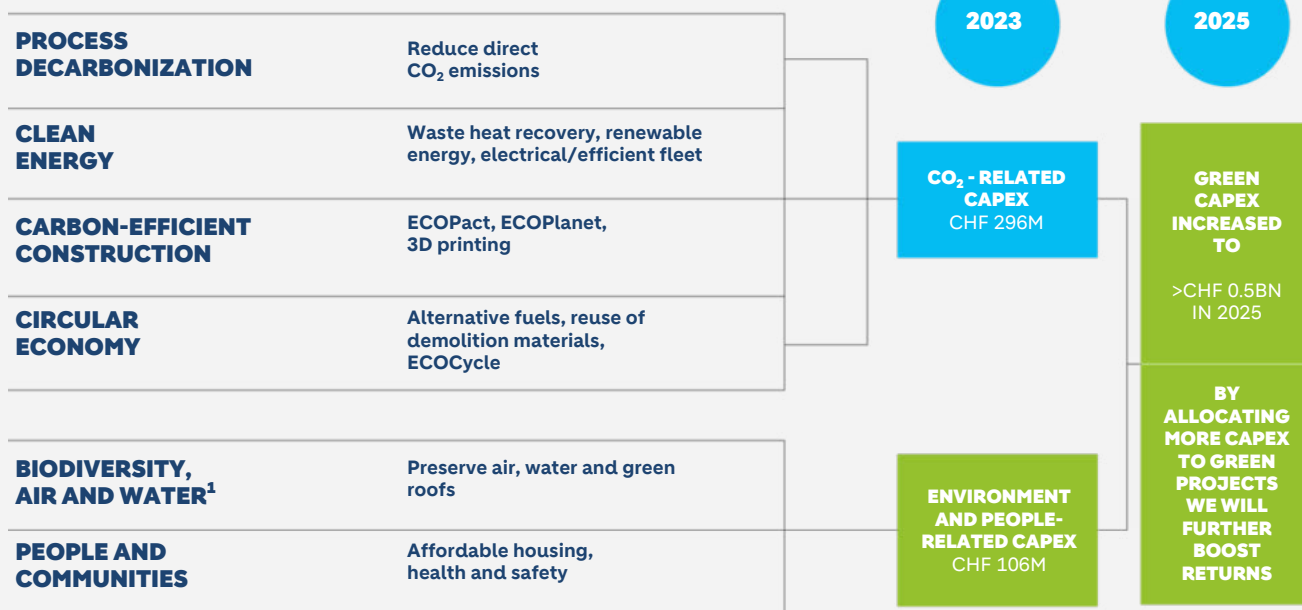
RISK GREEN CAPEX AT HOLCIM

At Holcim, we put 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 2023, our Green CapEx reached CHF 402 million, including investments of CHF 296 million in projects to accelerate our CO₂ reduction, and CHF 106 million in environment and people-related projects. We will increase our annual green CapEx to 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 align 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°.

GREEN CAPEX CATEGORIES



¹ CHF 0.1 million for biodiversity related CapEx, CHF 12.4 million for water related CapEx

CLIMATE AND NATURE RISKS AND OPPORTUNITIES CONTINUED

RISK DAMAGED REPUTATION DUE TO UNDOCUMENTED OR UNSUBSTANTIATED GREEN CLAIMS

Description	Potential Impact	Our Response
<p>The Group's inability to meet its commitments (net zero pledge), if materialized, is likely to damage the Group's reputation and reduce our attractiveness to stakeholders such as customers, investors, and potential employees.</p>	<p>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, as 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.</p> <p>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.</p>	<p>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 CO₂ emissions based on the latest emissions accounting protocols.</p> <p>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.</p> <p>Our brands ECOPact and ECOPlanet becoming multi-billion CHF brands, we control that each of those products follow strict clear global brand qualification criteria whose alignment with regulatory requirements are continuously monitored.</p>

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 rapidly increasing regulatory regulations and in accordance with our objective to foster the emergence of internationally recognized standards of low-carbon products, Holcim is continuously updating and reinforcing the alignment of low-carbon brand definitions to 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. An independent verification system that validates the environmental profile of products including ECOPact and ECOPlanet, EPDs are vital to accelerate low-carbon demand and decarbonize building at scale.

RISK DAMAGED ASSETS AND OPERATIONS

Description	Potential Impact	Our Response
<p>The physical consequences of climate change (such as increased regularity of extreme weather events and water scarcity) 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.</p>	<p>The most critical current climate risks to our business are water related. When water levels are too high this can harm our on-site operations with potential impacts on people and our assets, such as the recent flooding in Bangladesh. Additionally, in areas where we leverage local rivers for transportation, such as the Mississippi, significant variations in river water levels, both high and low, affect our river-based supply chains and product delivery. Water is a vital resource in our traditional businesses and increased scarcity has the potential to increase the likelihood of disruptions to production. As the climate changes, extreme weather events are likely to increase and the most critical physical risks will be storms causing floods and drought with potentially higher associated insurance costs.</p> <p>Impacts on financial reporting Physical deterioration of our production assets would result in potential impairment. The 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. The change in the climate may imply more regular and intense climate events that can have a significant impact on our production with business interruption, accident or damages. This may increase our insurance costs due to the higher amounts at stake or more frequent insured cases.</p>	<p>In 2023, we expanded the assessment of physical risks associated with climate change to over 100 material sites. The intent is to implement this program, on a risk basis, across the whole Holcim portfolio. Once fully implemented in all sites, the program will capture site level preparedness to current and future risks while enabling the development of mitigation programs complemented with strategic resilience plans for longer term and structural risks. At a Group level, the climate resilience and adaptation program will protect our people and the environments in which we operate, strengthen the decision-making process, mitigate financial losses due to asset damage and business interruption, and ensure adaptation to climate change based on scientific data. In the long term, portfolio changes with the development of our Solutions & Products business line will contribute to a shift to a business model that offers integrated solutions and systems specifically designed to tackle climate change challenges, such as: energy efficiency, cooling effects, extending the longevity of building materials and enhanced options to generate renewable energy.</p>

CLIMATE RESILIENCE AND ADAPTATION PROGRAM

Our climate resilience and adaptation program is a series of risk assessment initiatives being rolled out throughout our sites in a phased approach. Bridging short term resilience to long-term adaptation requirements, it will support our decision-making process and reinforce the Group's responses to physical risk. Leveraging the insights arising from this program, the ERM process will begin to integrate the requirements of the TNFD.

RISK ASSESSMENT 2022

- Launch of the multi-functional program covering a large range of current and future natural hazards
- Assessment of 62 sites in 31 countries







ADAPTATION 2024 onwards

- All sites across our business lines in scope
- Integration of the Nature-related risks of the Swiss RE tool in order to expand to Nature
- "Adaptation by design" including in CapEx projects and Due Diligences
- Investment plans to increase long-term adaptation
- Providing financial disclosure under EU Taxonomy

RESILIENCE 2023

- Risk assessment of all cement plants as well as 39 Solutions & Products sites
- Reinforce business continuity procedures
- Definition of climate change adaptation action plans and evaluate needs for investments to mitigate future climate risks

CLIMATE AND NATURE RISKS AND OPPORTUNITIES CONTINUED

RISK PHYSICAL CLIMATE-RELATED RISKS					
	<p>PRECIPITATION/STORM</p> <p>Maximum daily precipitation (in mm) for a predefined event. Also included lightning storms.</p>		<p>FLOOD</p> <p>Includes fluvial, riverine and pluvial floods. The risk score is based on changes in precipitation patterns as well as other components such as topography, catchment area and runoff.</p>		<p>LANDSLIDE</p> <p>Mass movement processes including rockfall, debris flows and mud slides.</p>
	<p>WILDFIRE</p> <p>Likelihood of wildfire based on current land susceptibility to fire and projected hot and dry weather.</p>		<p>DROUGHT</p> <p>Water stress locations based on the Standardized Precipitation Index (SPI) in combination with the number of heat wave days.</p>		<p>HEAT</p> <p>Combination of atmospheric water capacity, change in extreme temperature, and increase in number of dry days.</p>

● Acute ● Chronic

Temperature Change	IPCC Scenario	2025	2023	2050
1.5–2°C	SSP1-2.6	✓	✓	✓
2–3°C	SSP2-4.5	✓	✓	✓
3–5°C	SSP5-8.5	✓	✓	✓

Shared Socioeconomic Pathways (SSP1-2.6, SSP2-4.5, SSP5-8.5), temperature change by 2100 Intergovernmental Panel on Climate Change

The climate resilience and adaptation program assessed the potential impact of climate hazards at site level and along our supply chains. The study has been carried out based on physical climate risk insights that rely on the latest climate science from IPCC.

Ten risk scores were used to assess the development of climate risks under three different future scenarios (SSP1-2.6, SSP2-4.5, and SSP5-8.5) based on the Intergovernmental Panel on Climate Change's 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. For each location, changes to acute physical climate hazards such as flood, wind, precipitation and chronic hazards such as heat and drought were assessed for each scenario and the years 2025, 2030, and 2050.

IMPACTS ON OUR ASSETS

Considering Holcim' locations to be mostly extraction and processing of raw materials, the perils that can mostly impact business operations are heatwaves, flooding, drought, and extreme precipitation. For SSP1-2.6, the risk of heatwaves will only increase in the equatorial and tropical regions, however under SSP5-8.5 it increases notably everywhere in the future. Despite this, it is expected that most buildings (and machinery operated by people) will be air-conditioned, which mitigates the risk of heat waves causing business interruptions or reduced efficiency. Droughts are expected to increase close to the Mediterranean Sea and Mexico, so water scarcity will increase. Extreme precipitation will increase for about one third of the locations with SSP1-2.6 and for about half of the locations for SSP5-8.5. Climate models indicate that the flood risk will increase moderately by the end of the century for locations already affected by flooding.

IMPACTS ON OUR SUPPLY CHAIN

Disruption of supply chains by extreme weather events can pose a significant threat to Holcim's business operations. As a building materials company, Holcim is exposed to high and low water levels and flooding events that can impede planned transportation schedules, since transportation routes may be blocked, or employees may not be able to work as they cope with the flood. This results in business interruptions and additional costs that have already been experienced in many locations where we operate.

RISK PHYSICAL RISK CONTINUED



AT THE CROSSROAD BETWEEN NATURE AND CLIMATE: WATER RISK

At Holcim, we have developed a range of solutions to respond to water risk, which are adaptable based on local market conditions and water profiles.

POLICY AND LEGAL

More stringent regulations on water usage lead to a risk of exceeding freshwater quotas, coupled with increasing community expectations. In the Philippines, this led to a proactive program to reduce freshwater withdrawals by 69 percent since 2018. The compliance of water discharge is ensured by the implementation of Holcim’s Nature Policy, Water Directive and Water Management Standard.

REPUTATION

High freshwater withdrawal in areas of water risk could trigger potential negative impacts to our reputation. Reducing freshwater withdrawal is a key part of our strategy. As an example, in Greece, we reduced our freshwater withdrawal by replacing it with waste water from a local drinks company. In Australia, we replaced freshwater withdrawal with rainwater which we harvest and store on our sites when we face extreme rainfall events.



OPERATIONAL DISRUPTIONS

In certain areas, our operations can be susceptible to both too much or too little freshwater. In Egypt, we addressed the risk of higher costs or business interruption due to increased water scarcity by commissioning a desalination facility. Conversely, in 2022 and 2023, due to an increased risk of flooding in Bangladesh that would affect the entire economic and social ecosystem, we have taken proactive resilience measures to protect our people and assets as well as enable efficient business continuation.

SUPPLY CHAIN DISRUPTIONS

Operating in certain areas may lead us to face adverse supply chain conditions, such as impaired transportation and logistics, especially on fluvial routes during very low (such as the Rhine affecting operations in Germany) or very high (Mississippi) water levels. In the U.S., we’ve implemented a comprehensive response plan which consists of changing the means of transportation and production sourcing, utilizing temporary seasonal floating storage and short-term rail track.

* Per the World Resources Institute (WRI) Aqueduct tool, “water risk” embraces a large range of risks such as scarcity, flooding, access to drinking water, reputation, etc. Quality of water discharged is also part of our risk-based approach and is fully addressed by our internal policies.

RISK BUSINESS CASE ON THE PHYSICAL RISK

<p>APAXCO PLANT, Mexico</p>	<p>The current risk of heat stress is very high. The risk of lightning, drought and heat wave are high, followed by moderate risk of extreme precipitation, earthquake, and windstorm. Additionally, the (fresh)water availability is very low. The climate is modelled to become warmer (by 2080 up to +3.6°C) and dryer (summer and winter precipitation decrease by 2080 up to -23 percent and -77 percent, respectively). Droughts, heat waves, heat stress, and wildfires are expected to increase in the future. The strongest increase is expected for the warmer climate scenarios (SSP2-4.5 and SSP5-8.5).</p>
<p>RICHMOND PLANT, Canada</p>	<p>The current potential loss driving perils are fluvial flood and earthquake with both at high risk. In addition, there is also a very high risk of extreme precipitation, and moderate risk of drought and heat wave. The future climate risk scores indicate that extreme precipitation will increase between 9 and 14 percent by 2080 compared to the present for all climate scenarios. However, the increase of river flooding will be moderate. Heat waves and droughts are also expected to increase especially with SSP5-8.5.</p>
<p>EL SOKHNA, Egypt</p>	<p>The potential loss driving peril is earthquake but in this case with moderate risk. The present exposure to heat stress is very high, and the (fresh)water availability is very low. For the future, it is expected that the risk of wildfire, drought, heat waves and heat stress will increase. Again, there are differences in the future risk between the different climate scenarios with SSP5-8.5 being most impactful.</p>
<p>VOLOS PLANT, Greece</p>	<p>The current potential loss driving peril is earthquake with high risk. Additionally, there is moderate lightening and extreme precipitation risk. Heat stress is rated as a very high risk. The (fresh)water availability is low. The future climate risk scores indicate that heat stress and heat wave will increase especially with the middle of the road (SSP2-4.5) and the warmest climate scenario (SSP5-8.5). For example, heat wave days per year are currently two and will develop by 2050 with SSP2-4.5 to 46 and with SSP5-8.5 to 68. In addition, droughts and wildfires are expected to increase for this location, even if the present risk of both is rated as very low and low, respectively.</p>

CLIMATE AND NATURE RISKS AND OPPORTUNITIES CONTINUED

OPPORTUNITY ACCELERATING CIRCULARITY IN CONSTRUCTION

Description

Together with reducing our CO₂ footprint, the circular economy represents an important lever to design a business model that offers sustainable financial returns with reduced costs. In addition, preserving natural resources considerably reduces our dependence to mineral resources and preserves our long term growth.

Our Response

Circularity is one of our key strategic pillars, making circularity a driver of profitable growth. 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. 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 its Recycle Your Roof program.

➔ Please refer to pages 62–65 in order to learn how we build new from old and how we embed circularity in our core business model

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 pressures 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 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 (ie. kiln electrification), which makes the development of renewable 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 onsite or offsite assets
- Bi-lateral green 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.

➔ Refer to pages 40–45 in order to learn more how we adopt a tailored, local approach to decarbonize our electricity.

OPPORTUNITY DECARBONIZING THE BUILT ENVIRONMENT

Description

Buoyed by long term trends, climate change will create new needs and new challenges for the construction sector as a whole: need for resilient infrastructure, transformation into a circular economy due to scarcity of resources, growing cities requiring sustainable solutions such as energy efficiency.

Addressing these challenges and decarbonizing building requires the activation of 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 building across its lifecycle to build a net-zero future that works for people and the planet. To do so, our large range of solutions help cities curb greenhouse gas emissions with our building solutions that enable a lower carbon footprint, higher energy efficiency and reduced material use. Our Solutions and Products business line 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 up to 40 percent above competitive products in the market 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. Useable space is optimized while superior rigidity enables to build 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 building, and the need to specify sustainable solutions in procurement, as well as evolving building norms and standards.

OPPORTUNITY INCREASING DEMAND FOR LOW-CARBON BUILDING SOLUTIONS

Description

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.

Our Response

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 seize 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 large range of stakeholders and partners to influence norms and regulations and contribute to decarbonize construction, hence fostering a green demand and prepare 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.

SCENARIO ANALYSIS

Holcim has developed two distinct and plausible climate change scenarios, including one adhering to 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 have been considered to present Holcim's assessment on 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 lower 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 currently there is no viable substitute at scale.

Simultaneously, Solutions & Products' technologies and innovations deliver sustainable and energy-efficient solutions for the built environment. These will be a must 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 and a leader in sustainable and innovative construction materials and solutions, thus delivering profitable growth in a low-carbon economy. Depending on the particular risk or opportunity, this assessment leverages both quantitative and qualitative assessments. These scenarios do not constitute definitive outcomes for Holcim. This scenario analysis exercise relies on assumptions that may or may not eventuate, 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 have a growing 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, are 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 build 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 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 features.

	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 2023, IEA Net Zero by 2050 (2021, updated in IEA World Energy Outlook 2022)	IEA Stated Policies Scenario (STEPS) Source: IEA World Energy Outlook 2023 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 until 2030 in emerging markets. From 2030–2050 demand decreases due to smart design	Trend following RTS until 2030: Growth until 2030 in emerging markets. Marginal growth after 2030
CO₂ price (USD/T CO₂)	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: 120; 2050: 135 Canada: 2030: 130; 2050: 155 Other selected markets: 2030: 13-42, 2050: 29-89

SCENARIO ANALYSIS CONTINUED

SCENARIO IMPACTS



● Risk to be watched continuously by Holcim and risk governance to be adjusted accordingly to limit negative business impact. ● Opportunity improving the conditions to deliver our strategy and having a positive business impact.

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 at 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 CO₂ transportation and storage network at a large scale in line with the needs of other industries.

A limited number of CO₂ pricing schemes hampers the 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 coming from 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 a higher demand of low-carbon and circular building materials and of our Solutions & Products segment. Simultaneously, as the steel and energy industry 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. By 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 the sales of our low-carbon cement and concrete. The demand of 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 costs of mineral components will remain virtually unchanged compared to today's levels. By 2050, the price of these materials timidly increases as some decarbonization of industries is underway leading to a limited negative impact. On the other hand, with the slower transition to decarbonized energy sources, the demand for fossil fuels remains strong.

3. TECHNOLOGY

Holcim will benefit from the overall decarbonization efforts in society due to a) the earlier readiness and affordability of breakthrough technologies, such as kiln electrification, hydrogen and most importantly CCUS; and b) efforts in our own value chain / suppliers, which will reduce our Scope 3 emissions. Additionally, we will expect the production of supplementary cementitious materials like calcined clay to mature.

Significant additional efforts will be needed from Holcim to reach its Scope 1 targets as governments are slow in implementing the necessary policies to scale up breakthrough technologies such as kiln electrification, hydrogen and CCUS and the network and infrastructure around it. 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 CO₂ intensive business, bringing reputational risks. However, as the net-zero roadmap is delivered and Holcim is seen as a keen contributor to mitigate climate change, its reputation, trust and credibility grows and the strategy is aligned with the expectations of the stakeholders.

The slow pace in required regulatory incentives will bring additional challenges to Holcim's decarbonization journey, increasing progressively the respective 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, 30 percent 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 today.

Extreme weather events like extreme precipitation, flooding, drought and excessive heat days will increase significantly in frequency and intensity. In the long term, these may be significantly more intense and make protection measures at existing locations 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 present with the development of our Solutions & Products business line 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.

NON-FINANCIAL PERFORMANCE INDICATORS

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Compliance Program – Performance with Integrity

High performance with high integrity is key to sustainable success. Acting with integrity creates trust, protects our reputation, lowers our cost of doing business, and enhances shareholder value.

Holcim maintains a comprehensive risk-based compliance program (Compliance Program), which is based on requirements under national as well as international laws and relevant standards. Holcim's decentralized, empowered operating model is considered in the design and operation of the Compliance Program, in a manner that recognizes the business model while also ensuring appropriate centralized oversight and control. The Compliance Program has five pillars and is subject to continuous optimization.

Combating corruption is an important area of the Compliance Program. Compliance with all applicable anti-bribery and anti-corruption laws and regulations is an integral part of Holcim's license to operate. Holcim is a signatory to the United Nation Global Compact Initiative and committed to support its principles on anti-corruption.

1. Organization and Governance

The Group's Executive Committee is responsible for the Group-wide implementation of the Compliance Program and sets the tone from the top in support of the Compliance Program. The key responsibilities of the Compliance function lie in the prevention, detection, and correction of compliance infringements. It is the responsibility of the Compliance function to work with all stakeholders to identify weaknesses and control gaps, support management during implementation of corrective measures and ensure a systematic follow-up of such measures. Compliance assists management with promoting and fostering a foundation of integrity in all business practices.

The Compliance function is embedded and aligned within the Legal function and includes staff at the Group, Region, and Country levels. At the Group level, the Compliance function is headed by the Head of Legal and Compliance who has delegated the responsibility for the organization and management of the Compliance function to the Chief Compliance Officer and the Head of Competition Law (in relation to Fair Competition). Regular checks and reviews are conducted to ensure that Compliance resources at Group, Region and Country levels are sufficient.

The Group provides oversight of the Compliance Program through the Ethics, Integrity and Risk Committee (EIRC). The EIRC meets at least quarterly to oversee compliance matters, including compliance investigations, disciplinary actions recommended to management, as well as remediations of identified process or control deficiencies.

The Group's governance structure further ensures that the Audit Committee maintains significant visibility into the effectiveness of the Compliance Program. The Head of Legal and Compliance attends the Audit Committee meetings and reports regularly to the Audit Committee on the Compliance Program and function. Additionally, the Chief Compliance Officer has a dotted reporting line to the Chair of the Audit Committee, allowing the Group Chief Compliance Officer to escalate matters directly if necessary.

2. Risk Assessment

The annual compliance risk assessments survey key risk manifestations such as bribery and corruption or sanctions and export control against different risk triggers and specific scenarios. If there are relevant changes to the risk profile during an annual cycle, such as for example due to mergers or acquisitions, the compliance risk assessments will be updated on an ad hoc basis. The compliance risk assessments are integrated into the Enterprise Risk Management (ERM) Group-wide risk assessment cycle. For more information, please refer to the Key Operational Risks section on page 131.

Regarding anti-bribery and anti-corruption, the main risks identified in the compliance risk assessments include risks associated with obtaining and maintaining licenses and permits for business operations. As Holcim also operates in jurisdictions with a heightened exposure to bribery and corruption, the risk profiles in these jurisdictions are elevated accordingly. Third-party risk and risk pertaining to joint ventures are considered additional risk heightening factors where applicable.

3. Controls

Holcim has adopted a multi-layered approach to controls. This includes:

- Specific and detailed policies and directives that specify the conduct to which to adhere in operations. Their coverage includes the topics of anti-bribery and anti-corruption, third party due diligence, sanctions, embargoes and export controls, conflicts of interest, fair competition, data protection and privacy, as well as speak-up and internal investigations.
- Policies and directives are strengthened through the use of specific transactional and entity level controls which are implemented through the internal control system and monitored by the Internal Controls function. For more information please refer to the Internal Control section on page 138.
- Policies, directives and controls are reinforced through training and communications activities, which are planned, implemented and tracked in all operating countries.
- The implementation of controls and the delivery of training and communications is monitored through a system of compliance metrics and through audits conducted by the Internal Audit function.
- All conduct is subject to speak-up integrity reporting and a comprehensive review and response mechanism, including employee disciplinary measures.

4. Training and communications

Regular compliance communications and training start at onboarding, during which all employees are required to review the Code of Business Conduct, which begins with a letter from the Group CEO and Head of Legal & Compliance, discussing the importance of integrity, compliance, and the Code of Business Conduct – and to acknowledge in writing that they have read and understood the Code.

Continuous communications are subject to an annual planning process, which is localized to every operating country. The annual compliance planning process results in country-specific communications plans, tailored to the risk profiles of each country, executed in each country, and monitored by region and Group. This provides for a dialogue on compliance at Country level across the Group and is supplemented by Group- or Region-wide communications and awareness campaigns.

Training is delivered both through e-learning and face-to-face training sessions. E-learning training is provided to a broad employee audience. Face-to-face training is given to employees in functional positions that face heightened exposure to compliance risks. Training attendance is tracked and follow-ups are conducted. In 2023, a total of 11,981 employees received role-relevant business integrity face-to-face training and 42,586 employees conducted business integrity e-learning.

5. Monitoring and Reporting

By monitoring and reporting compliance-related metrics, Holcim measures the performance of the Compliance Program, providing reasonable assurance that the Compliance Program is effectively implemented. Metrics include both preventive measures such as training and communications or third-party due diligence, as well as detective or responsive measures such as corrective actions identified through the compliance processes, internal control testing, internal audits or internal investigations.

To support transparency over its conduct and business integrity, Holcim encourages a culture of speaking up. Any concern over known or suspected misconduct, which means any conduct relating to Holcim's business that is potentially illegal, violates the Code of Business Conduct or other applicable policies and directives, can be reported. Holcim manages a global reporting system called Integrity Line to facilitate employees, suppliers, customers, or members of the public to report any concerns. Holcim employees have a duty to report their concerns and Holcim views active reporting as a healthy indicator of an integrity culture. The Integrity Line is provided by an independent third party and all reports are objectively assessed and investigated if required.

All reports are treated seriously, and the confidentiality of the involved parties are preserved to the extent possible. Holcim applies a zero-tolerance policy regarding any misconduct and any retaliatory actions against reporters.

In 2023, a total of 836 reports were received in the Integrity Line, out of which 493 were reports of misconduct that required further assessment or investigation. The reporting categories of the 493 reports included: Human Resources, Diversity and Workplace Respect (244 / 49 percent); Business Integrity (132 / 27 percent); Misuse or Misappropriation of Assets (44 / 9 percent); Environment, Health and Safety (37 / 8 percent); Other (36 / 7 percent). The substantiation rate for investigated cases was 28 percent. 46 cases resulted in dismissals, 88 cases in other employment/disciplinary measures and 78 cases in process improvements, including training, third-party related sanctions and control adjustments.

2023 SUSTAINABILITY PERFORMANCE REPORT



Built with Holcim inside and outside, the Perot Museum of Nature and Science in Dallas was awarded LEED® Gold status and certified by the Sustainable Sites Initiative



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PERFORMANCE DATA TABLES



Part of Amazon's global headquarters, the Seattle Spheres, built with ECOPlanet, are home to more than 40,000 plants from the cloud forest regions of over 30 countries

PERFORMANCE AGAINST TARGETS

Unit key

Mt – million tons	Mm ³ – million cubic meters	kgCO ₂ /t – kilograms of carbon dioxide per ton	# – number	g/t – grams per ton
M GJ – million gigajoules	CHF – Swiss Francs	L/t – liters per ton	ha – hectares	mg/t – milligrams per ton
MJ – million joules	NR – Not reported	L/m ³ – liters per cubic	CHFm – million Swiss francs	LTI – Lost Time Injuries
MJ/t – million joules per ton	% – percentage		ton – metric ton	

	Unit	Base Year	Baseline	Target	Target Year	Current Performance	Achieved to Date
Specific CO ₂ emissions - Net (Scope 1) - Cement only	kgCO ₂ /t	2018	590	420	2030	545	-7.6 %
Specific CO ₂ emissions - Gross (Scope 1) - Cement only	kgCO ₂ /t	2018	623	-23.30 %	2030	587	-5.8 %
CO ₂ emissions - electricity (Scope 2) - Cement only	kgCO ₂ /t	2018	46	-65.00 %	2030	36	-22.7 %
CO ₂ indirect emissions from purchased fuels (Scope 3)	kgCO ₂ /t purchased fuels	2020	286	-20.00 %	2030	283	-1.1 %
CO ₂ indirect emissions from purchased clinker and cement (Scope 3)	kgCO ₂ /t per ton CLC	2020	710	-25.10 %	2030	702	-1.2 %
CO ₂ indirect emissions from downstream transportation (Scope 3)	kgCO ₂ /t per ton transported	2020	10.8	-24.30 %	2030	8.6	-20.2 %
Cement Specific freshwater withdrawal	L/t	2018	377	-33.00 %	2030	298	-21.0 %
Aggregates Specific freshwater withdrawal	L/t	2018	225	-20.00 %	2030	192	-14.6 %
Ready-Mix Specific freshwater withdrawal	L/m ³	2018	212	-15.00 %	2030	206	-3.0 %
Waste derived resources - all segments	Mt	2018	n/a	TBC	2030	36.3	
Construction demolition materials (CDM)	Mt	2020	6.6	12	2030	8.5	1.9
Circularity ratio - Cement (waste used / production volumes)	%	2020	22	30	2030	21.6	-0.4
Recycling ratio - all segments (waste used / sales volumes)	%	2020	8.5	17	2030	7.2	-1.3
High ESG impact suppliers qualified (% spend)	%	2017	n/a	100 %	2022	93	
Specific dust emissions	g/t	2018	121	75	2030	64.1	-56.9
Specific NOx emissions	g/t	2016	1,513	1,100	2030	1,188.6	-324.5
Specific SO ₂ emissions	g/t	2016	357	230	2030	229.7	-127.3
Cumulative contribution to create positive social impact	CHFm	2021	n/a	350	2030	90.8	26 %

PERFORMANCE DATA TABLES CONTINUED

ENVIRONMENT

ENERGY¹	Unit	2021	2022	2023
Energy consumption total	M GJ	437	431	420
Thermal energy consumption	M GJ	384	376	367
Thermal energy consumption fossil fuels – coal	M GJ	87	71	54
Thermal energy consumption fossil fuels – petcoke	M GJ	79	78	79
Thermal energy consumption fossil fuels – oil	M GJ	30	29	29
Thermal energy consumption fossil fuels – gas	M GJ	90	94	98
Thermal energy consumption fossil fuels – other traditional fossil fuels	M GJ	8	8	7
Thermal energy mix of clinker production – alternative fuels (ex biomass)	M GJ	58	61	62
Thermal energy mix of clinker production – biomass	M GJ	32	34	38
Electrical energy consumption	M GJ	54	55	52
Electrical energy – own generation – renewable	M GJ	1	1	1
Electrical energy – renewable PPAs	M GJ	2	3	3
Electrical energy – other renewable (grid)	M GJ	8	10	10
Electrical energy (non-renewable)	M GJ	42	41	38

¹ 2021 data is restated as per 2023 Consolidation

ENVIRONMENT

ABSOLUTE GHG EMISSIONS¹

	Unit	2021	2022	2023
Absolute Scope 1 emissions – gross	Mt	81	78	75
Absolute Scope 2 emissions (market-based)	Mt	5	5	5
Absolute Scope 3 emissions – total	Mt	53	47	47
Absolute S3 emissions – Cat 1 – Purchased goods & services	Mt	9.1	9.0	8.3
Absolute S3 emissions – Cat 2 – Capital goods	Mt	0.1	0.1	0.2
Absolute S3 emissions – Cat 3 – Fuel and Energy	Mt	5.8	5.5	5.3
Absolute S3 emissions – Cat 4 – Upstream transportation & distribution	Mt	4.6	4.7	4.4
Absolute S3 emissions – Cat 5 – Waste generated in own operations	Mt	0.2	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	Mt	0.1	0.1	0.1
Absolute S3 emissions – Cat 9 – Downstream Transportation & distribution	Mt	2.6	2.6	2.2
Absolute S3 emissions – Cat 10 – Processing of sold products	Mt	2.3	1.5	1.9
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	1.0	1.4
Absolute S3 emissions – Cat 13 – Downstream leased assets	Mt	0.0	0.0	0.0
Absolute S3 emissions – Cat 14 – Franchises	Mt	0.1	0.0	0.0
Absolute S3 emissions – Cat 15 – Investments	Mt	27.0	22.5	23.1
Absolute emissions (Scope 1, 2 & 3)	Mt	139	131	127

ABSOLUTE SCOPE 1 EMISSIONS BY SOURCE¹

	Unit	2021	2022	2023
CO ₂ emissions – Gross (Scope 1)	Mt	81	78	75
CO ₂ emissions from raw materials	Mt	52	51	49
CO ₂ emissions from fossil fuels	Mt	24	22	21
CO ₂ emissions from alternative fuels (non-biomass)	Mt	5	5	5
CO ₂ emissions from alternative fuels (biomass)	Mt	4	3	4

ABSOLUTE SCOPE 1 EMISSIONS BY REGION¹

	Unit	2021	2022	2023
CO ₂ emissions – Gross (Scope 1) – Asia Middle East & Africa	Mt	31	29	28
CO ₂ emissions – Gross (Scope 1) – Europe	Mt	23	22	20
CO ₂ emissions – Gross (Scope 1) – LATAM	Mt	11	11	11
CO ₂ emissions – Gross (Scope 1) – North America	Mt	16	16	16

SPECIFIC SCOPE 3 EMISSIONS¹

	Unit	2021	2022	2023
CO ₂ indirect emissions from purchased fuels	kgCO ₂ /t purchased fuels	314	285	283
CO ₂ indirect emissions from purchased clinker and cement	kgCO ₂ /t CLC	706	709	702
CO ₂ indirect emissions from downstream transportation	kgCO ₂ /t transported	10	10	9

ENERGY & GHG (GCCA KPIS) – CEMENT PLANTS ONLY

	Unit	2021	2022	2023
Specific CO ₂ emissions – Net (Scope 1) ² – as reported	kgCO ₂ /t	553	562	545
Specific CO ₂ emissions – Net (Scope 1) – 2023 Consolidation	kgCO ₂ /t	572	562	545
Specific CO ₂ emissions – Gross (Scope 1) ³ – as reported	kgCO ₂ /t	581	602	587
Specific CO ₂ emissions – Gross (Scope 1) – 2023 Consolidation	kgCO ₂ /t	609	602	587
Specific CO ₂ emissions – Electricity (Scope 2) – market based – as reported	kgCO ₂ /t	34	37	36
Specific CO ₂ emissions – Electricity (Scope 2) – market based – 2023 Consolidation	kgCO ₂ /t	39	37	36
Specific heat consumption of clinker production – as reported	MJ/t	3,520	3,654	3,664
Specific heat consumption of clinker production – 2023 Consolidation	MJ/t	3,640	3,654	3,664
Thermal Substitution Rate (TSR): alternative fuels plus biomass – as reported	%	21	28	30
Thermal Substitution Rate (TSR): alternative fuels plus biomass – 2023 Consolidation	%	26	28	30
Thermal Substitution Rate (TSR): biomass – as reported	%	8	10	11
Thermal Substitution Rate (TSR): biomass – 2023 Consolidation	%	9	10	11

¹ 2021 data is restated as per 2023 Consolidation.

² Reported as kg/t cementitious material. See note 10 for the definition of cementitious material.

³ Gross CO₂ emissions are the total emissions resulting from the calcination of limestone and the emissions resulting from the burning of fossil-based fuels and pre-treated waste-derived fuels. Compared with gross CO₂ emissions, net CO₂ emissions do not include CO₂ from alternative fuels.

PERFORMANCE DATA TABLES CONTINUED

ENVIRONMENT

WATER

	Unit	2021	2022	2023
Cement, aggregates and RMX				
Cement Specific freshwater withdrawal – as reported	L/t	259	304	298
Cement Specific freshwater withdrawal – 2023 Consolidation	L/t	315	304	298
Aggregates Specific freshwater withdrawal	L/t	219	218	192
Ready-Mix Specific freshwater withdrawal	L/m ³	207	202	206
Sites in water-risk areas ⁴	%	30	24	28
Sites in water risk areas with recycling system in place	%	79	76	76
Water-positive sites in water risk areas	%	7	4	4
Water discharge compliant with regulations	%	96	99	98
ALL SEGMENTS (EXCLUDING CAPTIVE POWER PLANTS)				
Specific freshwater consumption (L/t of product)	L/t	127	141	129
Total water withdrawal	Mm ³	140	118	114
Total freshwater withdrawal	Mm ³	118	104	98
Total freshwater withdrawal from groundwater	Mm ³	32	34	32
Total freshwater withdrawal from surface water	Mm ³	60	45	41
Total freshwater withdrawal from municipal water supplies or third parties	Mm ³	13	11	12
Total freshwater withdrawal from quarries	Mm ³	12	14	14
Non-freshwater withdrawal	Mm ³	11	8	9
Rainwater harvested	Mm ³	11	6	7
Total water discharge	Mm ³	50	35	35
Water discharge to ground or soil infiltration	Mm ³	8	5	7
Water discharge to surface water	Mm ³	41	29	26
Water discharge to offsite treatment or third parties	Mm ³	1.0	0.8	0.9
Water discharge to Seawater	Mm ³	0.0	0.3	1.7
Total water consumption	Mm ³	90	83	78
Sites equipped with a water recycling system	#	1,434	1,331	1,347
CAPTIVE POWER PLANTS				
Total water withdrawal	Mm ³	129	128	118
Total freshwater withdrawal	Mm ³	118	119	109
Total freshwater withdrawal from groundwater	Mm ³	1	0	0
Total freshwater withdrawal from surface water	Mm ³	117	119	109
Total freshwater withdrawal from municipal water supplies or third parties	Mm ³	0	0	0
Total freshwater withdrawal from quarries	Mm ³	0	0	0
Non-freshwater withdrawal	Mm ³	8	9	9
Rainwater harvested	Mm ³	4	0	0
Total water discharge	Mm ³	121	127	118
Water discharge to ground or soil infiltration	Mm ³	0	0	0
Water discharge to surface water	Mm ³	121	118	109
Water discharge to offsite treatment	Mm ³	0	0	0
Water discharge to Seawater	Mm ³	0	9	9
Total water consumption	Mm ³	8	0	0
Sites equipped with a water recycling system	#	19	4	4

⁴ Figures calculated using the Aqueduct Water Risk tool. Reflects sites in risk categories: Medium-high, High, Extremely High.

ENVIRONMENT

BIODIVERSITY

	Unit	2021	2022	2023
Quarries assessed using BIRS methodology – Active only	%	40	51	67
Quarries assessed using BIRS methodology – Active and non-active	%	35	48	64
Quarries with rehabilitation plan in place ⁵	%	93	100	100
Quarries with biodiversity importance ⁶	#	266	256	294
Quarries with biodiversity importance with biodiversity management plans in place	%	94	100	100
Total rehabilitated area (active quarries)	ha	14,048	13,115	12,349
Total rehabilitated area (all areas) ⁷	ha	19,989	17,448	14,855

RECYCLING WASTE

	Unit	2021	2022	2023
Waste derived resources – all segments ⁸ – as reported	Mt	54	34	36
Waste derived resources – all segments – 2023 Consolidation	Mt	31	34	36
Alternative raw materials contained in cement	%	13	9	10
Alternative raw materials contained in concrete	%	4	3	4
Alternative raw materials contained in asphalt	%	17	19	20
Circularity ratio – cement (waste used / production volumes) – as reported	%	24	20	22
Circularity ratio – cement (waste used / production volumes) – 2023 Consolidation	%	19	20	22
Recycling ratio – all segments (waste used / sales volumes)	%	9	7	7
Construction demolition materials (CDM)	Mt	6.6	6.8	8.4

INTERNAL WASTE (INCLUDING CAPTIVE POWER PLANTS)

	Unit	2021	2022	2023
Internal hazardous waste recycled or recovered	Mt	0.01	0.01	0.03
Internal non-hazardous waste recycled or recovered	Mt	0.87	0.92	1.16
Internal hazardous waste disposed	Mt	0.02	0.02	0.03
Internal non-hazardous waste disposed	Mt	0.99	1.04	0.88

ENVIRONMENTAL MANAGEMENT SYSTEMS (EMS) AND COMPLIANCE

	Unit	2021	2022	2023
Cement sites with an ISO 14001 certification	%	81	77	75
Cement sites with an EMS equivalent to ISO 14001	%	95	94	94
Aggregates sites with an ISO 14001 certification	%	19	16	18
Aggregates sites with an EMS equivalent to ISO 14001	%	79	66	66
RMX sites with an ISO 14001 certification	%	21	20	22
RMX sites with an EMS equivalent to ISO 14001	%	66	59	59
Number of countries reporting severe non-compliance cases	#	4	3	5
Fines and penalties paid	CHFm	2.5	0.6	0.5

⁵ This number refers to the number of quarries having a quarry rehabilitation plan compliant with Holcim's internal requirements.

⁶ According to categorizations introduced in 2018 following Fauna & Flora International (FFI) recommendations, which we have been incrementally implementing.

⁷ The decrease in rehabilitated area is the result of a change in ownership of several quarries.

⁸ Includes alternative raw material industrial mineral components (consumed and sold externally), alternative fuels, the volume of returned concrete recycled, secondary and/or recycled aggregates, and recycled asphalt.

PERFORMANCE DATA TABLES CONTINUED

ENVIRONMENT

AIR EMISSIONS

	Unit	2021	2022	2023
Clinker produced with continuous monitoring of dust, NOx, and SO ₂ emissions	%	89	93	93
Clinker produced with monitoring of dust, NOx, and SO ₂ emissions	%	96	99	100
Coverage				
Overall: Production with comprehensive emission monitoring	%	72	79	92
Dust: Production with dust measurement	%	99	99	100
NOx: Production with NOx measurement	%	97	100	100
SO ₂ : Production with SO ₂ measurement	%	96	100	100
VOC: Production with VOC measurement	%	80	92	97
Mercury: Production with Mercury measurement	%	84	86	100
Dioxins/furans: Production with dioxins/furans measurement	%	85	90	95
HM1: Production with HM1 measurement	%	86	89	96
HM2: Production with HM2 measurement	%	85	90	96
Emissions				
Total dust emissions	ton	11,448	6,706	5,824
Total NOx emissions	ton	162,344	111,005	108,033
Total SO ₂ emissions	ton	37,732	21,870	20,875
Total VOC emissions	ton	5,294	4,096	4,208
Total mercury emissions	ton	1.4	1.1	1.6
Total dioxins/furans emissions	g	4.2	3.2	3.5
Total HM1 emissions	ton	2.8	1.0	1.6
Total HM2 emissions	ton	23.8	33.8	33.2
Specific emissions (clinker)				
Specific dust emissions	g/t	82	71	64
Specific NOx emissions	g/t	1,163	1,177	1,189
Specific SO ₂ emissions	g/t	270	232	230
Specific VOC emissions	g/t	38	43	46
Specific mercury emissions	mg/t	10	12	18
Specific dioxins/furans emissions ⁹	mg/t	30	34	39
Specific HM1 emissions	mg/t	20	11	17
Specific HM2 emissions	mg/t	171	358	365

PRODUCTS AND SOLUTIONS

	Unit	2021	2022	2023
Total raw material consumption – all segments	Mt	533	432	444
Clinker produced	Mt	140	94	91
Clinker consumed	Mt	134	90	87
Cement fillers consumed (Limestone, gypsum, MIC, etc)	Mt	54	31	31
Cement produced	Mt	188	121	118
Mineral components (slag, fly ash, etc) produced	Mt	3	3	3
Cementitious material produced ¹⁰	Mt	197	128	125
Aggregates produced	Mt	257	252	265
Asphalt produced	Mt	10	10	10
RMX produced	Mm ³	46	45	44
Clinker factor (average % of clinker in cements) ¹¹	%	70.1	73.0	71.8
Production clinker factor	%	75.5	74.8	73.5
Net sales of sustainable solutions ¹²	%	30	32	25

⁹ As part of our efforts to recycle waste from other industries, we increased processing of third-party contaminated soil, leading to higher dioxins/furans, operating in compliance with the regulatory framework.

¹⁰ Cementitious material is defined following the GCCA definition: Total clinker produced plus mineral components consumed for blending and production of cement substitutes, including clinker sold but excluding clinker bought.

¹¹ Cements is defined as total cements produced, excluding clinker sold, including clinker bought. It includes Portland, blended and slag cements and direct fly ash sales.

¹² Net sales of sustainable solutions follows our financial reporting consolidation scope including acquisitions and divestments. The decrease in 2023 is the result of the divestments of India and Brazil.

SOCIAL

PEOPLE: SOCIAL INITIATIVE

	Unit	2021	2022	2023
Total contribution to create positive social impact	CHFm	43.5	22.5	24.8
Of which: Contribution by partners to create positive social impact	%	20	8	8
Total contribution to:				
Housing and infrastructure	%	23	24	28
Community initiatives on Health, Education & Skills and Other	%	66	57	55
Project management	%	11	19	17
Type of contribution:				
Social investment and inclusive business projects	%	89	78	79
Donations (cash and in kind)	%	11	22	21
Total number of beneficiaries ¹³	Million	4	3	2
Rural roads renovated or built as part of our social initiatives	km	454	328	481
Hospitals owned and managed by Holcim, open for dependents and community members	#	49	18	13
Schools owned and managed by Holcim, open for dependents and community members	#	36	19	19
Volunteering	Hours	26,801	32,666	47,750
Volunteering during paid working hours	%	91	73	84

PEOPLE: HUMAN RIGHTS

	Unit	2021	2022	2023
Human rights assessments conducted in the last three years – Group Reporting Units (GRUs) – cumulative	%	100	100	100
Human rights assessments conducted in the last three years – sites	%	75	98	100
Human Rights assessment and action plan status signed off by country Exco during the reporting year	%	100	98	98
People receiving training on Human Rights topics	#	16,742	12,566	18,654
Stakeholder engagement plans available and reviewed in last three years – cement, grinding sites	%	90	92	95

¹³ A direct beneficiary is defined as a person who was directly involved in the project or benefited from its implementation. Whenever possible, we count the exact number of beneficiaries (number of community members trained). When precise measurement is not possible (e.g. beneficiaries of a new hospital or bridge built by Holcim), estimates are made based on scientific methods such as social research, expert interviews or the like.

PERFORMANCE DATA TABLES CONTINUED

SOCIAL

HEALTH & SAFETY

	Unit	2021	2022	2023
Fatalities (activities under our direct control)				
By location				
On site	#	4	8	2
Offsite	#	0	0	0
By personnel category				
Employees	#	2	1	2
Contractors	#	2	7	0
Lost Time Injury Frequency Rate (LTIFR)				
LTIFR employees (# of LTIs per million work hours)	#	0.43	0.58	0.56
LTIFR contractors (# of LTIs per million work hours)	#	0.36	0.45	0.24
LTIFR employees and contractors on site (# of LTIs per million work hours)	#	0.39	0.53	0.43
Total Injury Frequency Rate (TIFR)				
TIFR employees (# of injuries per million work hours)	#	3.37	4.06	4.45
TIFR contractors (# of injuries per million work hours)	#	1.61	2.30	2.57
TIFR employees and contractors on site (# of injuries per million work hours)	#	2.43	3.32	3.68
Occupational Illness Frequency Rate (OIFR)				
OIFR employees (# of occupational illness per million work hours)	#	0.19	0.23	0.47
OIFR contractors (# of occupational illness per million work hours)	#	0.09	0.07	0.13
OIFR employees and contractors on site (# of occupational illness per million work hours)	#	0.14	0.16	0.33
Other				
On site Third-Party Fatalities (cement sites)	#	0	0	0
Workforce represented on Health & Safety committees	%	95	95	93
Number of employee fatalities per 10,000 directly employed	#	0.28	0.17	0.31
Number of Lost Time Injuries (LTIs) (directly employed)	#	61	68	68
Total number of LTIs – onsite and off site	#	169	106	88
Cement sites with an ISO 45001 certification	%	26	21	21
Cement sites with a management system equivalent to ISO 45001	%	38	36	37
Aggregates sites with an ISO 45001 certification	%	17	14	17
Aggregates sites with a management system equivalent to ISO 45001	%	34	28	30
RMX sites with an ISO 45001 certification	%	16	16	17
RMX sites with a management system equivalent to ISO 45001	%	33	34	34

EMPLOYEES BY EMPLOYMENT CONTRACT AND AGE INTERVAL

	Unit	2021	2022	2023
Full-time employees	%	99	98	98
Part-time employees	%	1	2	2
Permanent employees	%	96	94	94
Fixed-term contract employees	%	4	6	6
Employees under the age of 30	%	13	14	15
Employees between 30 and 50	%	59	56	55
Employees above 50	%	28	30	31
Gender diversity				
Women at senior management level	%	18	20	21
Women at all management levels	%	21	25	26
Women at non-management level	%	12	13	14
Women in total workforce	%	15	17	18
Turnover				
Overall employee turnover rate	%	16	17	16
Voluntary employee turnover rate	%	8	9	8
Hirings	%	15	20	19
Development				
Hours of training per employee (management level)	#	30	29	30
Hours of training per employee (non-management level)	#	19	18	21
Managers who had an annual performance review	%	87	87	84
Non-managers who had an annual performance review	%	46	45	38

GOVERNANCE

SOCIAL, GOVERNMENT AND ECONOMIC RELATIONS

SOCIAL RELATIONS	Unit	2021	2022	2023
Entities having strike actions over one week duration	#	1	2	1
Entities where employees are covered by collective agreements	%	75	72	70
Employees covered by collective agreements	%	NR	88	87
Government relations				
Political donations ¹⁴	CHF	12,111	0	60,000
Countries making political donations	#	1	0	1
Total subsidies	CHFm	41.3	80	66
Entities receiving subsidies	%	10	15	13
Economic relations				
Membership of trade associations and chambers of commerce	CHFm	19.3	14.6	13.6

SUPPLY CHAIN DUE DILIGENCE

	Unit	2021	2022	2023
ESG Risk Identification				
Holcim GRUs with due diligence process in place ¹⁵	%	100	100	95
Suppliers from national markets	%	92	91	90
Suppliers identified as having potential high ESG impact	%	39	35	36
Spend covered by Suppliers with potential high ESG impact	%	54	58	60
Spend with "assessed" potential high ESG impact Suppliers	%	73	95	93
Supplies non-compliant with Suppliers Code of Conduct	%	NR	NR	1
ESG Risk Management				
Non-compliant Suppliers with corrective action plan	%	NR	NR	85
Non-compliant Suppliers who improved sustainability performance	%	NR	NR	43
Non-compliant Suppliers canceled due to non-compliance	%	NR	NR	1

PRODUCING ASSETS INCLUDED IN EVALUATION

	Unit	2021	2022	2023
Cement producing sites including grinding and blending	#	266	147	148
Aggregates sites	#	447	474	499
Asphalt sites	#	85	86	83
Ready-mix sites	#	1,198	1,165	1,179
Quarries operated	#	701	647	648

¹⁴ Figures exclude Political Action Committee (PAC) contributions in the USA. These amounted to USD 33,326 in 2023.

Holcim Switzerland donated each CHF 20,000 to major national political parties for the National Parliamentary elections in 2023.

¹⁵ In 2023, only 4 new acquisitions have yet to implement Holcim due diligence processes.

Consolidation rules for non-financial KPIs

Scope of consolidation

The consolidation scope for non-financial reporting is aligned with financial reporting and includes Holcim Ltd and its subsidiaries. The list of principal consolidated entities is presented in Note 2.4 of the Consolidated Financial Statements.

Divestments and acquisitions

For business(es) divested during the year, data are excluded for the entire year. For business(es) acquired during the year, data are included for the entire year. There have been no significant divestments in 2023. The 2021 figures are restated as per 2023 consolidation in the CO₂ and Energy Section. Key metrics have been shown “as reported” and “under the 2023 Consolidation scope” in separated lines. Unless stated otherwise, all prior year figures for other indicators are “as published in the reporting year.”

When a new site is acquired by Holcim, its policies and procedures for non-financial reporting may not necessarily be in line with Holcim standards. Accordingly, new sites have up to the second reporting year after acquisition to meet and report performance according to Holcim standards.

METHODS OF DATA COLLECTION AND REPORTING METHODOLOGIES

Extrapolation

To accelerate the reporting process and align with the financial reporting timeline some data is based on eleven months of data (as at 30 November) and extrapolated to estimate annual values. This includes:

- For Employees, hours of training per employee
- For environmental data, including air emissions, non-cement CO₂ emissions, and water indicators including consumption and discharge

Other indicators are based on 12 months data or no extrapolation is required as they do not necessarily change between November and December (for example, environmental certifications and hectares rehabilitated.)

Controls

Controls put in place to ensure data quality and robustness include:

- Principle sustainability KPIs, namely those in relation to Holcim’s cement business (Scope 1 and 2 emissions of cement activities, Freshwater withdrawal) and Circular Economy volumes (Waste Derived Resources), are reported monthly through Holcim’s financial reporting process and are subject to the same level of internal controls. This includes an annual certification process to review the main action plans in progress and to confirm management responsibility at each relevant level of the Group organization on the quality of both internal control and financial reporting.

- The Axiom digital reporting and analytics platform, as well as internally developed proprietary spreadsheet-based import templates used in 2023, included built-in validation rules to ensure robustness of data reported. This includes highlighting when a value is outside an expected range or shows a significant deviation from previously reported data, requiring an explanatory comment.
- A robust workflow process is in place requiring a validation of the data and explanations by two managers for each questionnaire.
- Validation dashboards have been developed to allow entities and subject matter experts to identify values that are out of range.
- Data (such as production, contribution to social initiatives and number of employees) are checked against other reporting streams such as SAP and technical reports, as well as for consistency.
- Scope 3 KPIs are available on a quarterly basis, leveraging a data lake to automate extraction from underlying data sources and calculations for each of the Scope 3 categories. The report includes automated controls and sensitivity analysis and is supported by a sign off by the relevant functions responsible for the underlying data.

Economic indicators

- In 2023, data on net sales of sustainable solutions were collected through Holcim's financial reporting process on a monthly basis, complemented with a country-specific annual survey for sales associated with affordable housing and water.
- Data on supplier assessments was collected through proprietary spreadsheet-based import questionnaire templates and respective protocols: the Holcim Sustainable Procurement questionnaire. Data are gathered at Country/Group Reporting Unit level and cover all business segments and their industrial production sites. The Sustainable Procurement questionnaire was conducted covering 49 entities representing more than 98 percent of our total procurement spend.

Environmental indicators

Environmental performance indicators follow the reporting guidelines of the GCCA (previously the World Business Council for Sustainable Development – Cement Sustainability Initiative (WBCSD CSI)).

In 2023, environmental data were collected through the Axiom digital reporting and analytics tool as well as proprietary spreadsheet-based import templates. Reporting guidelines for environmental reporting were issued to ensure proper reporting, highlighting new and updated environmental indicators as well as changes in reporting scope as needed.

All sites that were active during the reporting year have been considered eligible to be included under the environmental reporting. For sites that were active less than six months, their impact has been estimated based on their production and Group averages.

For environmental data, cement terminals are not considered material, and therefore can be excluded from the consolidation.

- Scope 1, Scope 2 and energy: We use the GCCA Sustainability Guidelines for the monitoring and reporting of CO₂ emissions from cement manufacturing (Previously WBCSD CSI Cement CO₂ and Energy Protocol version 3.1) to calculate CO₂ emissions between the 1990 baseline and the reporting year. To calculate Scope 2 emissions we align with the GHG Protocol Scope 2 Guidance. Extensive work on ascertaining the most accurate available emissions factors is continually being conducted. The reporting coverage of the CO₂ data is 100 percent. Default CO₂ emissions factors for fuels are taken from the GCCA Sustainability Guidelines. Operations can overwrite these default values if more precise values or measurements are available.

- Scope 3 emissions: We apply the GHG protocol to estimate CO₂ emissions for all 15 categories. We select the GHG calculation methods that appropriately reflects the most material GHG emissions and serves the decision-making process to achieve reduction targets. We apply the following criteria to select calculation methods: 1. The relative size of the emissions 2. Data availability 3. Data quality 4. The cost and effort required to apply each method.

Method per category:

Category 1 and 3: for the most material purchased goods and for all fuels, we use the "average-data method", combining primary data from our operating systems (eg volumes purchased in each country) with emission factors extracted from LCA database (Gabi)

Category 1 purchased Clinker and Cement: we use the "average-data method", combining primary data from our operating systems (eg volumes purchased in each country) with emission factors extracted from the sector database GCCA-GNR with national averages updated on annual basis.

Category 3: for electricity, we use the "average-data method", combining primary data from our operating systems (e.g. volumes purchased in each country) with emission factors extracted from IEA, for WTT and T&D linked to the country grid.

Category 4 and 9: for transportation, we use the "distance-based method", combining primary data from our operating systems (eg volumes transported, KM driven, vehicle types, payload) with HBEFA fuel models and emission factors extracted from LCA database (Gabi).

Category 5: we use average-method combining primary data (volumes of waste generated in our operation, classified by waste type) with emission factors extracted from LCA database (Gabi), related to waste treatment process (according to each waste type).

Category 7: we estimate CO₂ from employee commuting, modelling fuel consumption based on number of employees per country and an average kilometers travelled per year (including a percentage of home office), assuming the use of an average car, with an emission factor extracted from LCA database (Gabi).

Category 10: we use the "site-specific" method combining primary data (volumes sold) with Scope 1 and 2 from specific sites (reference sites processing sold goods) in each country.

Category 12: we use an average-method combining primary data (volumes sold) with emission factors extracted from LCA database (Gabi), related to waste treatment process at the end of life (according to each waste type)

METHODOLOGY AND CONSOLIDATION 2023

Category 14: we estimate CO₂ emissions from our retail franchises, modelling energy consumption in commercial buildings per m², per country.

Category 15, we use "primary data", capturing Scope 1 and 2 emissions from our Joint ventures and applying the percentage in relation to our equity ratio.

For all other categories (low impact), we use a "spend-based" method, combining primary data from spend for each category in each country and the kg CO₂ per Swiss Franc extracted from a macroeconomic database (Exiobase).

Procurement spend and transportation volumes used for Scope 3 calculations are based on 12 rolling month data from November 2022 to October 2023.

- **Air Emissions:** We use the GCCA Sustainability Guidelines for the monitoring and reporting of emissions from cement manufacturing (previously WBCSD CSI Guidelines for Emissions Monitoring and Reporting in the Cement Industry Protocol (2012)). Emission levels can be measured continuously or based on spot measurement. Information is always available at kiln level. If an emission component has not been measured in 2023 due to travel or other restrictions, the 2022 measurement has been used to estimate the performance at kiln level. If no measurement was available in 2022, the 2023 Group average has been used to estimate the Group's absolute impact.
- **Percentage of production with measurement:** The full production from a kiln is included in this coverage only when the emission of the respective pollutant(s) is monitored, otherwise the production covered by measurement from the kiln is considered zero. For the percentage of production with comprehensive emission monitoring, the full production from a kiln is included only when emissions of all pollutants (dust, NO_x, SO₂, VOC/THC, heavy metals (Hg, Cd, Tl, Sb, As, Pb, Cr, Co, Cu, Mn, Ni and V), PCDD/F) are monitored.
- **Water:** The GCCA Sustainability Guidelines for the monitoring and reporting of water in cement manufacturing (previously the CSI Protocol for Water Reporting) has been used as a reference to measure the water performance of the Group. Data from captive power plants are reported separately. The coverage of water data is 98 percent on average.
- **Waste and recycling:** Waste comprises all forms of solid or liquid waste (excluding wastewater) and is defined as hazardous or non-hazardous based on the legislation of the country in which the site operates. Overburden from quarry activity is not classified as waste.

- **Waste-derived resources:** Data reported for waste-derived resources include alternative raw materials, industrial mineral components (consumed and/or processed and sold externally), alternative fuels, volume of returned concrete recycled, secondary and/or recycled aggregates and recycled asphalt.
- **Biodiversity and quarries:** Quarries that have been assessed using Biodiversity Indicator Reporting System (BIRS) and those with rehabilitation plans in place are aligned with the Holcim Directive on Quarry Rehabilitation and Biodiversity. The key requirements go far beyond legal compliance and include measures respecting the mitigation hierarchy (avoid, minimize, restore and offset) and a biodiversity management plan for sites assessed as of high biodiversity value.

Health and safety (H&S)

H&S performance indicators follow the GCCA Sustainability Guidelines for the monitoring and reporting of safety in cement and concrete manufacturing, issued in March 2023.

H&S data is gathered at site level and further consolidated at Country/Group Reporting Unit level, and covers all business segments and their industrial production sites, including corporate and above country, regional and service entities.

In 2023, H&S data were collected through Holcim's reporting system: iCare | HSE Incident management module. Data are segregated according to onsite and offsite incidents, and cover employees, contractors and third parties. The hours worked that are used to calculate incident rates for employees and contractors are calculated and/or estimated locally by business units.

Human Resources indicators

In 2023, Human Resources (HR) data was primarily collected through the HR software platform and complemented where necessary with additional indicators collected through the annual Human Resources questionnaire.

Data is gathered at Country/Group Reporting Unit level and covers all business segments and their industrial production sites, including corporate and above country, regional and service entities.

Human Rights and Social Initiatives indicators

In 2023, social impact data were collected through Holcim's reporting system and respective protocol: the annual human rights and social impact questionnaire. Information about spending on social initiatives was reported through Holcim's financial reporting process on a quarterly basis, at the Country/Group Reporting Unit level, and covers all business segments and their industrial production sites.

The 2023 human rights and social impact data are derived from a survey covering 66 entities representing 95 percent of the total Group workforce and include majority-owned entities and managed assets. We collect information on, among other aspects, the entities' implementation of the human rights approach, human rights assessment and action plans, stakeholder engagement activities and community engagement structures, specific impact indicators of social initiatives, volunteering activities, political donations and subsidies.

The total contribution to create positive social impact is a cumulative KPI from 2021 to 2030. In 2023, it is calculated by including the total spend on the social initiatives made by Holcim to implement social impact projects and donations. It also includes third-party contributions, which are the resources received through external partnerships to implement social initiatives led by Holcim in the countries.

Holcim differentiates four categories for the social initiatives, which are:

- **Housing and Infrastructure:** Initiatives that facilitate access to housing and infrastructure for the community, such as affordable housing solutions, building or improving community facilities (emergency relief shelters, sanitation, parks, rural roads, etc.).
- **Health:** Health awareness campaigns, vaccination programs, general healthcare services and building or improving hospital infrastructure.
- **Education and Skills:** Road safety, lectures in partnership with schools and universities, livelihood and income-generation programs, professional training targeting the community and building or improving school infrastructure.
- **Other:** Environmental management and awareness, cultural, recreational or other initiatives to contribute to positive social impact.

Under Human Rights and Social Impact reporting, data such as number of community advisory panels, number of engagements with key stakeholders at site level, and complaints related to human rights, environmental impact and other potential risks are recorded. Furthermore, any conflicts with stakeholders that sites may have or expect in the future, and how such conflicts are addressed, are captured. Also, countries report on the latest version of their human rights assessments and the status of implementation of their human rights action plans.

Reporting cycle

The Holcim Group will continue to report annually.

Independent verifier's limited assurance report on a selection of non-financial information

To the Executive Committee,

Further to your request and in our quality as an independent verifier, member of the network of one of the statutory auditors of the entity Holcim (hereafter "Entity"), we present our report on a selection of non-financial information consisting in selected consolidated environmental, social initiative, and health & safety indicators (hereafter "Sustainability Indicators") and other non-financial reporting processes consisting in human resources, human rights and other social initiative related information ("Non-Financial Reporting Processes"), that the Entity has chosen to prepare in accordance with its protocols consisting in external standards elaborated by the Global Concrete and Cement Association (previously the World Business Council for Sustainable Development - Cement Sustainability Initiative (WBCSD-CSI)) completed with Entity-specific procedures (hereafter the "Guidelines"), for the year ended on 31 December 2023, presented in its Integrated Annual Report (hereafter "Report") and listed in Appendix 1.

Our Limited Assurance Conclusion

Based on the procedures we have performed as described under the "Nature and scope of procedures" and the evidence we have obtained, nothing has come to our attention that causes us to believe that the Sustainability Indicators taken as a whole are not fairly presented, in all material respects, in accordance with the Guidelines. In addition, nothing has come to our attention that causes us to believe that the Non-Financial Reporting Processes are not implemented, in all material respects, as described in the section "Methodology and consolidation 2023" of the sustainability chapter of the Report and in accordance with the Guidelines.

Understanding how Holcim has Prepared the Sustainability Indicators

The absence of a commonly used general accepted reporting framework or a significant body of established practice on which to draw to evaluate and measure sustainability information allows for different, but acceptable, measurement techniques that can affect comparability between entities and over time.

Consequently, the Sustainability Indicators need to be read and understood together with the Guidelines and the basis of preparation set out in the section "Methodology and consolidation 2023" of the sustainability chapter of the Report, which the Entity has used to prepare the Sustainability Indicators.

The Entity's responsibility

As part of this voluntary approach, it is the responsibility of the Entity to:

- select or establish suitable criteria for the preparation of the Sustainability Indicators;
- prepare the Sustainability Indicators and to implement the Non-Financial Reporting Processes in accordance with the Guidelines, a summary of which is included in the section "Methodology and consolidation 2023" of the sustainability chapter of the Report;
- design, implement and maintain the internal control procedures it deems necessary to ensure that the Sustainability Indicators are free from material misstatement, whether due to fraud or error.

Responsibility of the independent verifier:

It is our role, in response to the Entity's request, based on our work, to:

- plan and perform the engagement to obtain limited assurance about whether the Non-Financial Reporting Processes were implemented as described in the section "Methodology and consolidation 2023" of the sustainability chapter of the Report and in accordance with the Guidelines;
- express a limited assurance conclusion about whether the Sustainability Indicators are free from material misstatement, whether due to fraud or error;
- report our conclusion to the Executive Committee of Holcim.

As we are engaged to form an independent conclusion on the Sustainability Indicators and the Non-Financial Reporting Processes as prepared by management, we are not permitted to be involved in their preparation as doing so may compromise our independence.

It is not our responsibility to report on the entire Report for the year ended on the 31 December 2023 or on the compliance with other applicable legal provisions.

Independence and quality control

Our independence is defined by the French Code of Ethics for Statutory Auditors (Code de déontologie) of our profession and by the International Code of Ethics for Professional Accountants (including International Independence Standards) issued by the International Ethics Standards Board for Accountants.

In addition, our firm applies International Standard on Quality Management 1, which requires us to design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Means and resources

Our work engaged the skills of eight people between November 2023 and February 2024 and took place over a total duration of intervention of about 18 weeks.

We conducted a dozen interviews with people responsible for preparing the Sustainability Indicators and the Non-Financial Reporting Processes, representing in particular the Human Resources, the Health and Safety, the Procurement and the Sustainable Development directions.

Nature and scope of procedures

We have performed a limited assurance engagement in accordance with the international standard ISAE 3000 (revised)¹ (International Standard on Assurance Engagements).

1. Review of the non-financial reporting processes

We undertook interviews with the people responsible for the collection and preparation of the information at the headquarters level and at the country level for a selection of entities, in order to:

- assess the suitability of the questionnaires and definitions used, in relation to their relevance, completeness, reliability, neutrality and understandability;
- verify the implementation of the process for the collection and compilation of the information.

2. Limited assurance on a selection of Sustainability Indicators

We undertook interviews with people responsible for the preparation of the Sustainability Indicators in the Sustainable Development and Health & Safety Departments, in charge of the data collection process and, when applicable, the people responsible for internal control processes and risk management, in order to:

- assess the suitability of the Guidelines for reporting, in relation to their relevance, completeness, reliability, neutrality, and understandability, taking into consideration, if relevant, the best practices of the industry;
- verify the implementation of the process for the collection, compilation, processing and control for completeness and consistency of the Sustainability Indicators and identify the procedures for internal control and risk management related to the preparation of the Sustainability Indicators.

We determined the nature and extent of our tests and inspections based on the nature and importance of the Sustainability Indicators, in relation to the characteristics of the Entity, its social and environmental issues, its strategy in relation to sustainable development and industry best practices:

- at the Entity level, we consulted documentary sources and conducted interviews to corroborate the qualitative information (organization, policies, actions, etc.), implemented analytical procedures on the quantitative information and verified, on a test basis, the calculations and the compilation of the information, and also verified their coherence and consistency with the other information presented in the Report.
- at the level of the representative selection of sites and entities that we selected², based on their activity, their contribution to the consolidated indicators, their location and a risk analysis, we undertook interviews to verify the correct application of the procedures and undertook detailed tests on the basis of samples, consisting in verifying the calculations made and linking them with supporting documentation. The sample selected therefore represented on average 12% of the hours worked used for the calculation of safety indicators, and between 3% and 33% of the environmental information³.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had we performed a reasonable assurance engagement.

Paris-La Défense

February 27, 2024

The Independent Verifier

EY & Associés



Partner, Sustainable Development

Christophe Schmeitzky

¹ ISAE 3000 (revised): "Assurance Engagements other than audits or reviews of historical information"

² Four cement plants: Malagueño (Argentina), Msila (Algeria), Saint Genevieve (U.S. CEM) and Malogoszcz (Poland), and 4 Group Reporting Units (GRU): Argentina, Algeria, U.S. CEM and Poland.

³ On average, 11% of production (cement (23%), aggregates (6%), RMX (3%)), 30% of cement net CO₂ emissions (Scope 1), 29% of absolute gross Scope 1 emissions, 33% of absolute Scope 2 emissions, 18% of waste-derived resources, 26% of air emissions, 30% of cement energy consumption, 6% of other segments energy consumption, 8% of quarries operated and 17% of cement freshwater withdrawal.

APPENDIX 1: SELECTION OF NON-FINANCIAL INFORMATION

The Sustainability Indicators

Products and solutions

- Total raw material consumption – all segments
- Clinker produced
- Cement produced
- Cementitious materials produced
- Aggregates produced
- RMX produced
- Clinker factor (average % of clinker in cements)

Recycling and waste

- Waste-derived resources – all segments
- Internal hazardous waste recycled or recovered
- Internal non-hazardous waste recycled or recovered
- Internal hazardous waste disposed
- Internal non-hazardous waste disposed
- Construction demolition materials (CDM) recycled

CO₂ and energy

- Energy consumption total
- Thermal energy consumption
- Electrical energy consumption
- Absolute Scope 1 emissions – gross
- Absolute Scope 2 emissions (market-based)
- Absolute Scope 3 emissions - total
- Absolute Scope 3 emissions per category of emissions (as defined by the GHG Protocol)
 - Category 1 – Purchased goods and services
 - Category 2 – Capital goods
 - Category 3 – Fuel- and energy-related activities
 - Category 4 – Upstream transportation and distribution
 - Category 5 – Waste generated in operations
 - Category 6 – Business travel
 - Category 7 – Employee commuting
 - Category 8 – Upstream leased assets
 - Category 9 – Downstream transportation and distribution
 - Category 10 – Processing of sold products
 - Category 11 – Use of sold products
 - Category 12 – End-of-life treatment of sold products
 - Category 13 – Downstream leased assets
 - Category 14 – Franchises
 - Category 15 – Investments
- Specific CO₂ emissions - Net (Scope 1) - Cement Only
- Specific CO₂ emissions - Gross (Scope 1) - Cement Only
- CO₂ emissions - electricity (Scope 2) - Cement only
- CO₂ indirect emissions from purchased fuels (Scope 3)
- CO₂ indirect emissions from purchased clinker and cement (Scope 3)
- CO₂ indirect emissions from downstream transportation (Scope 3)

Water

- Cement Specific freshwater withdrawal
- Aggregates Specific freshwater withdrawal
- Ready Mix Specific freshwater withdrawal
- Total water withdrawal

Environmental management systems (EMS) and compliance

- Cement sites with an ISO 14001 certification

Biodiversity

- Quarries assessed using BIRS methodology – active only
- Active quarries with rehabilitation plans in place
- Active quarries with biodiversity importance
- Active quarries with biodiversity importance having ongoing Biodiversity Management Plans in place

Air emissions

- Clinker produced with continuous monitoring of dust, NO_x and SO₂ emissions
- Clinker produced with monitoring of dust, NO_x and SO₂ emissions
- Total dust, NO_x, SO₂, VOC, mercury, dioxin/furans emissions
- Specific dust, NO_x, SO₂, VOC, mercury, dioxin/furans emissions

People: Social initiatives

- Total contribution to create positive social impact

Health and safety

- Fatalities (employees and contractors)
- Lost Time Injury Frequency Rate (employees and contractors) on site
- Total Injury Frequency Rate (employees and contractors) on site

The Non-Financial Reporting Processes

Reporting processes covering

- Human Resources-related information, including Group employees per employment contract and age interval, gender diversity, turnover, development and social dialogue
- Human Rights- and Stakeholder-related information, including number of beneficiaries and human rights assessments



About this document

Holcim's 2023 Report on Non-financial matters is fully integrated in the [2023 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 27.0 billion in 2023. Driven by our purpose to build progress for people and the planet, our 63,448 employees are on a mission to decarbonize building, while improving living standards for all. We empower our customers across all regions to build better with less, with a broad range of low-carbon and circular solutions, from ECOPact and ECOPlanet to our circular technology platform ECOCycle®. Through innovative systems, from Elevate roofing to PRB insulation, Holcim makes buildings more sustainable in use, driving energy efficiency and green retrofitting. With sustainability at the core of our strategy, we are on the way to becoming a net-zero company with 1.5°C targets validated by SBTi.

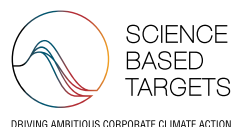
More information is available on [holcim.com](https://www.holcim.com)

INTEGRATED REPORTING

This report applies the principles of Integrated Reporting to show how we manage the company sustainably, as well as the financial and non-financial value we created in 2023.



For TCFD-guided disclosures see page 142.



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

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