

# Building More, Emitting Less

*The Holcim Blueprint: How a Century-Old Cement Giant Made Net Zero Its Most Profitable Business Decision*

## 01 EXECUTIVE SUMMARY

Cement is one of the most structurally carbon-intensive industries on earth. The calcination of releases CO<sub>2</sub> as an inescapable process by-product, entirely independent of the energy source used. This is not a fuel-switching problem. It is a chemistry problem. And for over a century, Holcim Ltd, one of the world's largest building materials group, sat at the centre of it: operating at industrial scale in an industry responsible for approximately 7–8% of global CO<sub>2</sub> emissions, with no viable path to decarbonization beyond incremental efficiency gains.

That changed decisively in 2017, when Jan Jenisch was appointed CEO following the collapse of the LafargeHolcim merger strategy. Jenisch executed a fundamental restructuring of Holcim's commercial logic: sustainability was not positioned as a cost to be managed, but as the primary source of pricing power, margin expansion, and demand growth in an otherwise commoditised industry. By 2024, that thesis had produced measurable, audited results: record recurring EBIT of CHF 5,049 million, a record margin of 19.1% (+150bps year-on-year), and record free cash flow of CHF 3,801 million, all delivered simultaneously with progress across every major target.

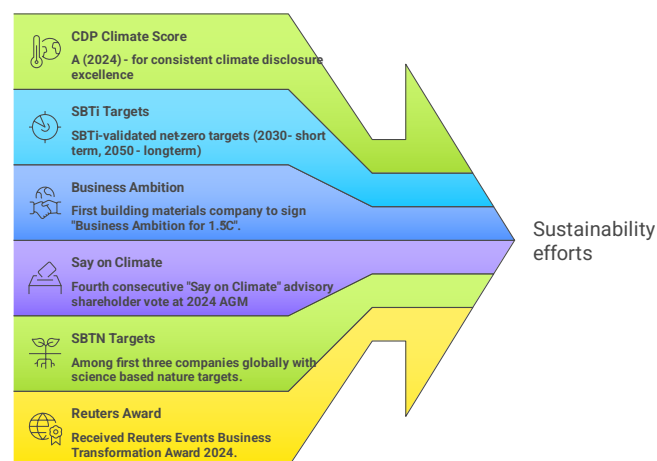
This case study traces the structural problem Holcim inherited, the strategic architecture it deployed to solve it, and the commercial and sustainability results it has delivered.

## 02 COMPANY OVERVIEW

Founded in 1912 in Holderbank, Switzerland, Holcim Ltd is today the global leader in innovative and sustainable building solutions. The group operates across 44 markets, employs 65,000 people, and generates CHF 26.4 billion in annual net sales across four business lines: cement, aggregates, ready-mix concrete, and a fast-scaling Solutions & Products division (roofing, insulation, and circular materials) that reached CHF 5.9 billion in 2024 net sales alone.

### Business at a Glance

Holcim's geographic and product diversification is a key structural strength. North America delivered a record recurring EBIT margin of 24.9% in 2024; Latin America achieved its 18th consecutive quarter of profitable growth at 36.0% margin; Europe drove double-digit EBIT growth of +12.1% in local currency as sustainable building regulations tightened. Across all regions, the common driver of margin outperformance was the same: the shift from standard commodity cement to advanced, sustainability-differentiated products commanding higher realised prices.



## 03 CHALLENGES & PROBLEMS

By 2015, Holcim faced a convergence of structural, commercial, and governance failures that exposed the fragility of a business model built solely on scale. The USD 60 billion merger with Lafarge had created the world's largest cement group on paper, but failed to earn its cost of capital in the first two years of operation. LafargeHolcim reported a net loss of €1.46 billion in 2017. The CEO resigned amid the fallout from a conduct inquiry in Syria. The stock had declined 39% since the merger announcement. This was not a temporary integration challenge; it exposed four deep structural problems that had to be solved simultaneously:

### ⚡ The Hard-to-Abate Emissions Problem

Scope 1 emissions account for 60.9% of Holcim's carbon footprint, of which 39.8% originates from the calcination of limestone into clinker. No fuel switch, no renewable electricity tariff, and no efficiency programme can eliminate this. It requires either fundamental product reformulation or carbon capture at scale.

### 📦 The Commodity Trap

Standard Portland cement (CEM I/OPC) is a commodity in which price is set by the lowest-cost regional producer. With no product differentiation, Holcim competed on logistics proximity and volume throughput. Competitors in emerging markets with lower labour and energy costs were narrowing the gap. Without a credible premium product strategy, long-run returns would converge toward the cost of capital, not above it.

### Carbon Regulatory & Policy Risk

The EU Emissions Trading System (EU ETS) creates a direct and escalating financial cost for Scope 1 emissions. The Carbon Border Adjustment Mechanism (CBAM), which applies to cement imports into the EU from 2026, adds a second layer of financial exposure. Inaction on emissions intensity was, in financial terms, equivalent to accumulating a growing off-balance-sheet liability with no cap.

### The Linear Model: A Structural Input Cost Problem

Cement production consumes vast quantities of virgin limestone. Meanwhile, billions of tonnes of construction and demolition waste (CDM) were being landfilled. The industry was simultaneously paying for virgin inputs and paying to dispose of substitute materials. This circularity gap was a direct and measurable cost inefficiency.

## 04 OBJECTIVES & TARGETS SET

In 2020, LafargeHolcim became the first building materials company globally to have near-term decarbonization targets validated by the Science Based Targets initiative (SBTi) under the “Business Ambition for 1.5°C” framework. This was followed in 2021 by the first SBTi-validated long-term net-zero target, covering the full value chain to 2050, a distinction the company holds as the first in the cement sector. All targets below are drawn exclusively from Holcim's Climate Report 2024 and Integrated Annual Report 2024.

Target	Goal	2024 Status	Track
Gross Scope 1 & 2 CO <sub>2</sub> per ton cementitious material	-26.2% by 2030 vs 2018	2% reduction YoY in 2024	▶ On Track
CO <sub>2</sub> per CHF million net sales (Scope 1+2)	Annual reduction	4% reduction in 2024	✓ Achieved
Scope 3: purchased clinker & cement intensity	-25.1% by 2030 vs 2020	Pathway active	▶ On Track
ECOPlanet % of cement net sales	>50% by 2030	26% in 2024 (from 7% in 2021)	▶ Progressing
ECOPact % of ready-mix net sales	>50% by 2030	29% in 2024	▶ Progressing
Construction demolition materials recycled	20M+ t per year by 2030	10.2M t in 2024 (+20% YoY)	▶ On Track
CCUS projects in active execution	7 projects; CHF 2B invested	7 projects; EU grants secured	✓ Achieved
Net-zero cement from CCUS by 2030	8M t per annum	Projects in construction phase	▶ On Track
Green CapEx	CHF 500M by 2025	CHF 534M in 2024	✓ Exceeded
Sustainable financing share	40% of total financing	40% achieved in 2024	✓ Achieved
Full value chain net zero (Scopes 1, 2, 3)	2050 - SBTi validated	Validated; annual AGM vote	✓ Validated

## 05 STRATEGY, APPROACH & IMPLEMENTATION

The action was not to add a sustainability layer on top of an existing business model, but to restructure the model itself around three mutually reinforcing pillars.

### Three Pillars of the Transformation

#### Pillar 1: Low-Carbon Product Lines - Escaping the Commodity Trap

The commercial insight underpinning Holcim's product strategy was straightforward but counterintuitive for a commodity manufacturer: customers facing tightening building codes, public procurement requirements, and their own Scope 3 disclosure obligations would pay a premium for cement and concrete with independently verified lower carbon intensity. ECOPlanet (low-carbon cement) and ECOPact (low-carbon ready-mix concrete) were the commercial vehicles for that insight. Both deliver a minimum

30% CO<sub>2</sub> reduction versus standard CEM I/OPC, verified against Environmental Product Declarations (EPDs), without compromise on mechanical performance. The formulation approach uses calcined clay (a locally available, lower-calcination-temperature alternative to conventional clinker) along with supplementary cementitious materials, recycled CDM inputs, and optimised alternative fuels. In 2024, Holcim deployed its AI-powered OptiCEM tool, which generated over 1,400 new low-carbon cement formulations in its first six months of operation, saving more than CHF 400,000 in development costs and compressing product development cycles.

The financial result is unambiguous. ECOPlanet grew from 7% of cement net sales in 2021 to 26% in 2024, generating CHF 3B+ in annual net sales. ECOPact reached 29% of ready-

mix net sales with CHF 1.5B+. Combined, these two brands now account for over CHF 4.5 billion annually. The mechanism is not subsidy-dependent: the premium is paid by construction clients managing their own carbon obligations under national and EU regulations, creating a structural and expanding demand driver.

### Pillar 2: ECOCycle - Closing the Circular Materials Loop

The logic of ECOCycle was grounded in a straightforward cost economics observation: construction and demolition materials (CDM) require significantly less energy to reprocess into usable construction materials than virgin limestone quarried and calcined from scratch. Holcim built a network of over 150 urban recycling centres, strategically positioned in metropolitan areas near demolition activity. These centres accept CDM from third-party demolition contractors (generating recycling fee revenue), process it into recycled aggregates, alternative raw material inputs for ECOPlanet cement, and road construction fillers (generating product sale revenue), and feed the processed material back into Holcim's own manufacturing network (reducing virgin input costs). The model creates three separate revenue or cost-reduction events from a single material stream that competitors are landfilling.

In 2024, ECOCycle recycled 10.2 million tonnes of CDM - a 20% increase on 2023. Holcim made four value-accretive acquisitions in this space during 2024 alone: Thames Materials (UK), Atlantic Terres Solutions (France), A&S Recycling (Germany), and Cand-Landi (Switzerland), adding processing capacity in urban markets where CDM volumes are highest. The 2030 target is 20 million tonnes per annum,

which would make ECOCycle one of the largest urban mining operations in the global construction sector.

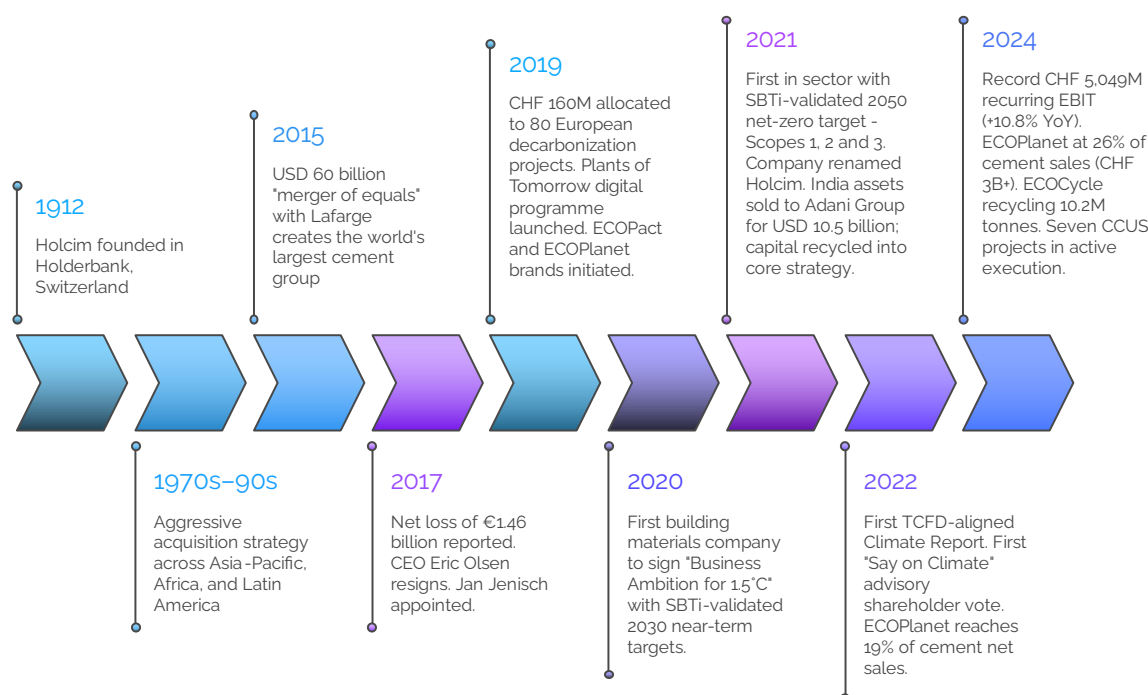
### Pillar 3: CCUS — Addressing the Chemistry Problem at Industrial Scale

The 39.8% of Holcim's total emissions attributable to clinker calcination cannot be reduced through any of the levers available in Pillars 1 and 2. It requires carbon capture at the kiln. Holcim committed CHF 2 billion to large-scale CCUS deployment by 2030, targeting 8 million tonnes of net-zero cement per annum. Seven projects are currently in active execution in Europe: the Carbon2Business project at the Lägerdorf plant in Germany (co-processing captured CO<sub>2</sub> into industrial feedstocks), and six further sites in Belgium, France, and Switzerland. Crucially, seven of these projects have secured grants from the EU Innovation Fund, thus de-risking the capital deployment and providing partial validation of technological viability from a rigorous institutional funder. The CCUS pathway does not rely on carbon offsets: Holcim's SBTi-validated 2050 net-zero commitment explicitly excludes offset-based accounting.

### Governance: Embedding Accountability into Capital Structure

Holcim has systematically embedded climate accountability beyond voluntary reporting. It was the first cement company to introduce a "Say on Climate" advisory shareholder vote, now in its fourth consecutive year. Sustainable financing reached 40% of total financing in 2024. Full CSRD disclosure was initiated in 2024, including publication of a double materiality assessment confirming strategic priority alignment. Reporting covers all 15 Scope 3 categories, and the Climate Report is submitted annually for external assurance under ISAE 3000.

## The Transformation Timeline



## 06 RESULTS & IMPACT

**CHF 5,049M**

**Recurring EBIT**

Record - +10.8% in local currency vs 2023

**19.1%**

**EBIT Margin**

Record - +150bps YoY; industry-leading globally

**CHF 3,801M**

**Free Cash Flow**

Record - +2.6% vs prior year after leases

**CHF 4.5B+**

**ECOPlanet + ECOPact**

Combined net sales - from near-zero in 2018

**10.2M t**

**CDM Recycled**

+20% vs 2023; 2,000+ truckloads per working day

**36%**

**Advanced Brand Sales**

Share of group net sales from branded solutions

**Financial Impact: Sustainability as Margin Driver**

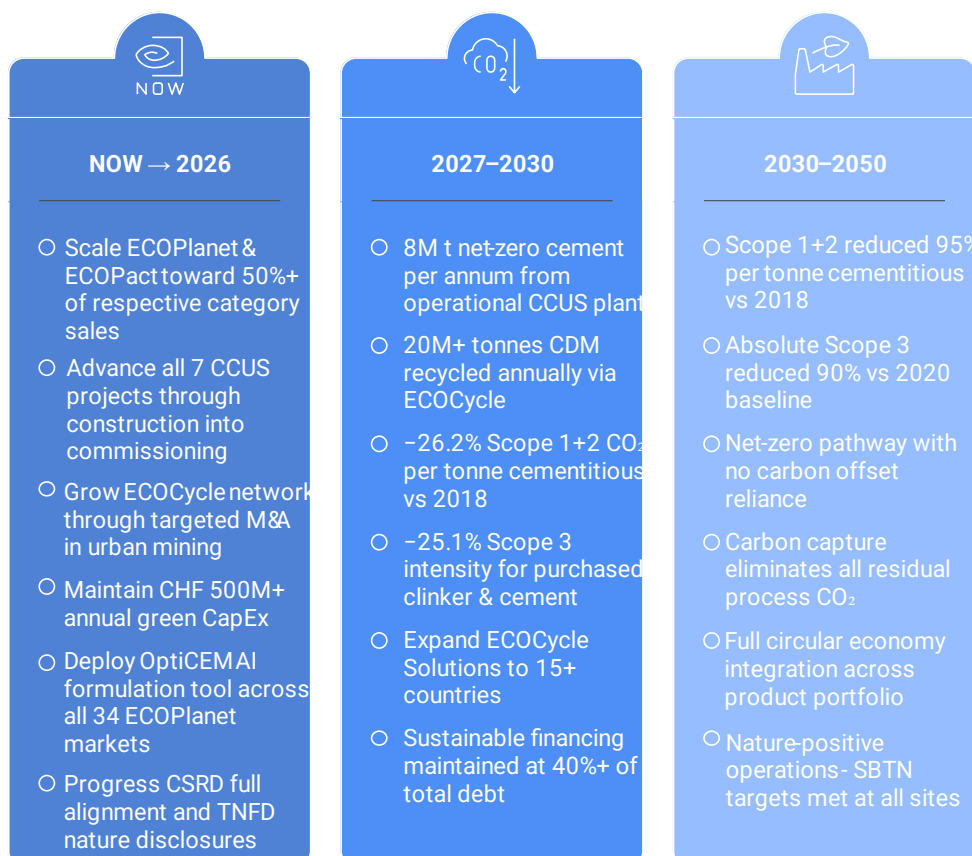
The 150 basis point expansion in recurring EBIT margin to 19.1% in 2024 was not driven by volume growth. It was driven by mix: the progressive substitution of standard commodity cement (lower realised price, no pricing power) with ECOPlanet and ECOPact (premium pricing backed by independently verified carbon credentials). This is the commercial proof that the sustainability strategy has altered Holcim's fundamental pricing power, not merely its cost structure. Europe, where carbon regulation is most advanced, delivered the highest margin growth. Latin America, which achieved a 36.0% recurring EBIT margin, similarly shows that markets with rapidly rising sustainability standards for public infrastructure procurement disproportionately reward differentiated green product portfolios.

**ESG Impact**

Holcim reduced CO<sub>2</sub> per CHF million of net sales (Scope 1+2) by 4% in 2024, and reduced CO<sub>2</sub> net per tonne of cementitious material by 2% year-on-year. Both figures are independently assured under ISAE 3000. Green CapEx of CHF 534 million exceeded the CHF 500 million 2025 target one year early. Sustainable financing reached the 40% target. The ECOCycle recycling volume of 10.2 million tonnes represents a 57% increase since 2022, scaling at a rate consistent with the 2030 target of 20 million tonnes. Seven CCUS projects received EU Innovation Fund grants, providing independent third-party validation of their technological credibility. On Scope 3, Holcim now discloses all 15 GHG Protocol categories in its Climate Report, a transparency standard that few industrial peers have matched.

**07 FUTURE ROADMAP**

Source: Holcim Integrated Annual Report 2024; Climate Report 2024; SBTi Target Summary; NextGen Growth 2030 Strategy, March 2025.



## 08 CONCLUSION

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Holcim's transformation is significant not because it occurred in a favourable industry but because it occurred in one of the most structurally unfavourable ones. Cement is hard-to-abate by chemistry, capital-intensive to decarbonize, and historically immune to product differentiation. The prevailing assumption was that sustainability and profitability in this sector were, at best, in tension and, at worst, mutually exclusive.

The 2024 results refute that assumption with audited data. A CHF 5.0 billion recurring EBIT at a 19.1% margin were achieved while simultaneously progressing every material ESG target: CO<sub>2</sub> intensity down 4%, CDM recycling up 20%, green CapEx exceeding target, sustainable financing at 40%, and seven CCUS projects in active construction. These are not sequential achievements; they are concurrent ones, which is the more important point for any organisation benchmarking Holcim's model.

What makes the Holcim case analytically compelling is the causal mechanism. The margin expansion was not delivered by cost-cutting or volume growth. It was delivered by pricing power, the ability to charge a premium for products that help customers meet their own regulatory and ESG obligations. That pricing power is durable because it is grounded in independently verified product credentials (EPDs, SBTi validation, ISAE 3000-assured reporting) that competitors cannot replicate simply by claiming sustainability without evidence. The governance architecture, the "Say on Climate" vote, TCFD and CSRD disclosures, SBTi validation, and sustainable financing covenants is the institutional infrastructure that makes the commercial premium credible, and therefore defensible.

Holcim did not decarbonize despite being a cement company. It used decarbonization to escape the structural constraint of being a cement company. The same logic applies to any industrial where the product is undifferentiated, the regulatory direction is clear, and the customer base faces its own escalating sustainability obligations. The window for first-mover premium positioning in those markets is open but it will not remain so indefinitely.

## 09 REFERENCES & SOURCES

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*All data, financial figures, targets, and ESG metrics cited in this case study are drawn exclusively from the following official Holcim publications. No third-party media, analyst estimates, or unverified sources have been used.*

- Holcim Integrated Annual Report 2024 — <https://www.holcim.com/sites/holcim/files/docs/28022025-finance-holcim-fy-2024-report-full-en.pdf>
- Holcim Climate Report 2024 — <https://www.holcim.com/sites/holcim/files/docs/28022025-holcim-climate-report-2024.pdf>
- Holcim Report on Non-Financial Matters 2024 (Art. 964b Swiss Code of Obligations) — <https://www.holcim.com/who-we-are/governance/regulations-and-reporting>
- Holcim FY 2024 Full Year Results — Media Release & Analyst Presentation, 28 February 2025 — <https://www.holcim.com/media/media-releases/full-year-2024-results>
- Holcim Sustainability Performance Report 2024 — <https://www.holcim.com/who-we-are/governance/regulations-and-reporting>
- Holcim NextGen Growth 2030 Strategy — <https://www.holcim.com/investors/publications>
- Holcim SBTi Target Summary — <https://sciencebasedtargets.org/news/sbti-launches-world-first-1-5-c-science-based-framework-to-decarbonize-the-cement-industry>