



ANMD-MRS2-011 · Advanced Building Materials

Low-Carbon Cement

A Global Sustainability Due Diligence & Market Research Study

History 2020–2024 · Base Year 2025 · Forecast 2025–2032 · Outlooks 2035 / 2040 / 2050 · Currency US\$

WHY THIS REPORT

Low-carbon cement cuts the embodied carbon of the built environment's most-used material, turning decarbonisation pressure and green-building codes into a compliance-and-premium opportunity. This decision-grade study sizes the global market three ways — value, tonnes and installed capacity (Mt) — across product type, technology and application, across seven regions and four scenarios to 2032, with outlooks to 2050.

SUSTAINABILITY & SDG IMPACT — THE ANMD LENS

Sustainability is this report's backbone, not an afterthought. Beyond performance, low-carbon cement delivers measurable embodied-carbon reduction, energy savings and clinker-factor cuts, while SCM reuse and reduced quarrying strengthen the natural-capital story.

Mapped Sustainable Development Goals:

SDG 9 Industry & Innovation	SDG 11 Sustainable Cities	SDG 12 Responsible Consumption	SDG 13 Climate Action
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Measurable sustainability outcomes assessed:

- Embodied-carbon reduction and clinker-factor cuts
- Energy savings across the production process
- Supplementary cementitious material (SCM) reuse and reduced quarrying
- Raw-material sourcing and supply-chain ESG as material risks

Framework alignment: Double materiality mapped to GRI, SASB, ISSB, TCFD, TNFD, CSRD and the EU Taxonomy, with greenwashing and SDG-washing screens applied throughout.

WHAT'S INSIDE AT A GLANCE

53 Chapters	9 Report Parts	7 Regions Covered	40+ Country Markets
2025–32 Forecast Horizon	4 Forward Scenarios	25+ Companies Profiled	4 SDGs Mapped

REPORT COVERAGE

Geographic scope: North America, Europe, Asia Pacific, Latin America, Africa, Middle East and Rest of World — with named country intelligence. Asia Pacific is the volume leader (China, India, Japan) on cement demand and the decarbonisation push; Europe leads on codes and standards; other regions assessed on their own merits.



MARKET OVERVIEW

From early adoption to mainstream scale — where decarbonisation rules meet the built environment's most-used material.

The low-carbon cement market is moving from early adoption to mainstream commercial scale. Demand is driven by building decarbonisation converging with embodied-carbon rules and green-building codes, supported by maturing incentives across Asia Pacific, Europe and North America. The market is read three ways — value, tonnes and installed capacity (Mt) — and forecast under four scenarios, each region reported separately.

- Asia Pacific is the volume leader — China, India and Japan, on vast cement demand and the decarbonisation push
- Europe leads on embodied-carbon codes, standards and the green-premium market
- Whole-life carbon is the differentiator — lower embodied carbon plus durability and compliance, increasingly with green-premium value
- North America accelerates on procurement rules and low-carbon-concrete specification

REGIONAL OUTLOOK

Across seven reporting regions, the report separates early commercialisation leaders from high-growth and emerging markets — each profiled in full rather than aggregated into Rest of World.

Region	Stage	Lead Markets & Drivers
Asia Pacific	Volume leader	China, India, Japan — cement demand, decarbonisation push
Europe	Standards leader	Germany, France, UK, Nordics — embodied-carbon codes, green premium
North America	Accelerating	United States, Canada — low-carbon procurement, specification
Latin America	Emerging	Brazil, Mexico — cement demand, blended cements
Africa	Frontier	Nigeria, Egypt, South Africa — construction growth, local SCMs
Middle East	Frontier	Saudi Arabia, UAE — mega-projects, green-building codes

KEY MARKET DRIVERS & RESTRAINTS

Drivers	Restraints
• Building-decarbonisation + embodied-carbon-rule convergence • Clinker-factor cuts & energy savings • Green-building codes & low-carbon procurement • Durability, compliance & green-premium economics • SCM, calcined-clay (LC3) & novel-chemistry technology gains	• Standards, certification & specification acceptance • SCM availability & supply-chain constraints • Performance-equivalence & durability proof • Energy, raw-material & logistics cost inflation • Specifier adoption, financing & code-update lag



SEGMENTATION SNAPSHOT

By Product Type	Blended cement · SCM-based · calcined-clay (LC3) · novel low-carbon chemistries
By Technology	Clinker substitution · alternative fuels · carbon capture · novel binders
By Application	Structural concrete · precast · mortar & render · infrastructure
By End User	Builders · developers · contractors · specifiers · infrastructure owners
By SCM Source	Fly ash · slag · calcined clay · natural pozzolans
By Scale	Project · regional · national supply

TABLE OF CONTENTS — PARTS & CHAPTERS

The full report is organised into nine parts across 53 chapters, listed below. Detailed sub-headings, country tables and directories are provided in the full report.

Part I — Report Foundation, Discovery and Strategic Intelligence

- › Chapter 1. Scope, Methodology and Report Architecture
- › Chapter 2. Industry Discovery Summary — Low-Carbon Cement
- › Chapter 3. Executive Intelligence and Decision Dashboard
- › Chapter 4. Strategic Findings, Materiality and Investment Verdict Preview

Part II — Market Intelligence, Sizing, Forecasting and Segmentation

- › Chapter 5. Industry Overview and Market Evolution
- › Chapter 6. Market Dynamics
- › Chapter 7. Global Market Size and Forecast, 2020–2032
- › Chapter 8. Market Segmentation Analysis
- › Chapter 9. End-User and Demand-Side Intelligence
- › Chapter 10. Pricing, Cost and Commercial Model Intelligence

Part III — Regional and Country Intelligence

- › Chapter 11. Global Regional Intelligence Framework
- › Chapter 12. North America Market Intelligence
- › Chapter 13. Europe Market Intelligence
- › Chapter 14. Asia Pacific Market Intelligence
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- › Chapter 16. Africa Market Intelligence
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- › Chapter 18. Rest of World Market Intelligence

Part IV — Technology, Innovation and Category-Specific Intelligence

- › Chapter 19. Technology Landscape and Architecture
- › Chapter 20. Emerging and Next-Generation Technology Intelligence
- › Chapter 21. Category-Specific Intelligence Module
- › Chapter 22. Research, Innovation and Funding Landscape



Part V — Company, Competition, Patent and Project Intelligence

- › Chapter 23. Competitive Landscape
- › Chapter 24. Company Profiles
- › Chapter 25. Mergers, Acquisitions, Partnerships and Ecosystem Intelligence
- › Chapter 26. Patent Landscape and Intellectual Property Intelligence
- › Chapter 27. Project, Deployment and Case-Study Intelligence

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- › Chapter 28. Sustainability Intelligence Suite
- › Chapter 29. ESG Intelligence and Double Materiality
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Part VII — Supply Chain, Policy, Legal, Economics and Finance

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- › Chapter 41. Investment, Sustainable Finance and Bankability Intelligence

Part VIII — Scenario, Future Intelligence and Final Due Diligence Verdict

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- › Chapter 43. Sustainability Due Diligence Framework and Data-Room Index
- › Chapter 44. Risk Register, RAG Rating and Anti-Greenwashing Screen
- › Chapter 45. Bottom-Line Verdict and Strategic Recommendations
- › Chapter 46. Implementation Roadmap and Stakeholder Playbooks

Part IX — Annexes, Directories and Reference Material

- › Chapter 47. Methodology Annex
- › Chapter 48. Corporate Directory and Company Intelligence Annex
- › Chapter 49. Patent Directory and Patent Intelligence Annex
- › Chapter 50. Project Intelligence Annex
- › Chapter 51. Forecast Annex
- › Chapter 52. Sustainability KPI Annex
- › Chapter 53. Reference Annexes

COMPETITIVE & INVESTMENT SNAPSHOT

The competitive field spans specialist low-carbon-cement producers, established materials majors, and regional manufacturers. Deal activity — capacity investment, technology licensing and demonstration projects — signals a market consolidating around bankable, scalable production.

Representative players profiled in the full report:

Holcim Ltd · Heidelberg Materials AG · Cemex S.A.B. de C.V. · CRH plc · UltraTech Cement Ltd. · and 20+ further profiled players across producers, technology licensors and SCM suppliers.

Investment intelligence: venture, infrastructure, development, climate and blended finance, green bonds and sustainability-linked loans — culminating in a bankability assessment and a Go / No-Go / Conditional-Go investment verdict.



KEY QUESTIONS THIS REPORT ANSWERS

- ? How large is the global low-carbon cement market, and how fast will it grow to 2032?
- ? Which regions, countries and segments offer the strongest risk-adjusted opportunity?
- ? How does whole-life carbon change value versus conventional materials?
- ? Who leads, and where is the competitive and patent white space?
- ? Is the investment case bankable — and under what conditions?
- ? How does the material align with the SDGs, green-building codes and disclosure regulation?

WHY ANMD — THE DIFFERENCE

Most market studies stop at units and revenue. This report is built as a sustainability due diligence instrument — fusing market sizing with ESG, SDG, climate, water and natural-capital intelligence and a decision-ready bankability verdict in a single architecture.

- › Triangulated sizing — every market read three ways so value, volume and area views reconcile rather than conflict.
- › Region-honest forecasting — Latin America, Africa and the Middle East reported in full, never hidden inside Rest of World, every forecast resolved to the 2025 base year.
- › Integrated evidence base — company, patent and project databases linked to the analysis, with published-filing patents and FTO treated as an indicator, not a legal conclusion.
- › No-fabrication discipline — every estimate carries a data-confidence rating and disclosed sources; gaps are flagged for further diligence, never filled with invented numbers.
- › Anti-greenwashing rigour — SDG-washing and greenwashing screens plus claim-substantiation checks built into the ESG and project analysis.
- › Decision-first structure — 9 Parts and 53 Chapters culminating in stakeholder playbooks and a clear Go / No-Go / Conditional-Go investment verdict.

WHO SHOULD BUY THIS REPORT

Investors and infrastructure / PE funds, material producers and manufacturers, builders, developers and contractors, architects and specifiers, green-building certifiers, policymakers, and corporate strategy and ESG teams.

Access the Full Report

The complete report delivers all 53 chapters in full, with every sub-heading, country table, company and patent directory, forecast model and due diligence checklist.

Purchase at www.anewmarketdynamics.com · Standard & Premium licences · Single-Site (SSL) and Global-Site (GSL) options at checkout.

Want the Complete Detailed Table of Contents?

This prospectus lists the nine parts and 53 chapters. The complete detailed table of contents — every sub-heading, country table, exhibit, company and patent directory and annex — is available on request to registered users. To receive it, register with your official company email at www.anewmarketdynamics.com. The full detailed table of contents will be sent directly to your registered company email address.