ANMD-MRS2-015 · Advanced Building Materials

Bio-Based Insulation Boards

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

Bio-based insulation boards cut embodied carbon and store biogenic carbon while delivering healthy, high-performance thermal envelopes from renewable inputs. This decision-grade study sizes the global market three ways — value, volume (m^3) and area (million m^2) — 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, bio-based insulation boards deliver measurable embodied-carbon reduction, biogenic carbon storage and renewable sourcing, while carbon-storing fibres and renewable inputs strengthen the natural-capital story.

Mapped Sustainable Development Goals:

SDG 11	SDG 12	SDG 13	SDG 15
Sustainable Cities	Responsible Consumption	Climate Action	Life on Land

Measurable sustainability outcomes assessed:

- Embodied-carbon reduction versus synthetic insulation
- Biogenic carbon storage in renewable fibres
- Renewable, healthy-material sourcing
- End-of-life circularity and raw-material sourcing 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. Europe is the technology leader (Germany, France, Poland) on a deep bio-insulation industry and codes; North America scales on green-building and healthy-materials demand; other regions assessed on their own merits.

MARKET OVERVIEW

From early adoption to mainstream scale — where renewable fibres store carbon inside the building envelope.

The bio-based insulation boards 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 Europe, North America and Asia Pacific. The market is read three ways — value, volume (m³) and area (million m²) — and forecast under four scenarios, each region reported separately.

- Europe is the technology leader — Germany, France and Poland, on a deep bio-insulation industry and supportive codes
- North America scales on green-building and healthy-materials demand
- Whole-life carbon is the differentiator — embodied-carbon reduction plus biogenic storage, increasingly with green-premium value
- Renewable sourcing and carbon-storage credentials shape specification economics

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
Europe	Technology leader	Germany, France, Poland — bio-insulation industry, codes
North America	Scaling	United States, Canada — green building, healthy materials
Asia Pacific	Emerging	Japan, Australia — green building, natural materials
Latin America	Emerging	Brazil, Chile — natural-fibre construction
Africa	Frontier	South Africa — green building, local fibres
Middle East	Frontier	UAE — green-building certification, premium projects

KEY MARKET DRIVERS & RESTRAINTS

Drivers	Restraints
• Embodied-carbon rules + healthy-materials convergence • Embodied-carbon cuts & biogenic carbon storage • Green-building codes & certification (e.g. EU, LEED) • Durability, comfort & green-premium economics • Wood-fibre, hemp & cellulose technology gains	• Cost premium vs synthetic insulation • Standards, fire & moisture-performance acceptance • Feedstock supply & forestry-sourcing constraints • Energy, fibre & binder cost inflation • Specifier adoption, financing & code-update lag

SEGMENTATION SNAPSHOT

By Product Type	Wood-fibre · hemp · cellulose · cork · other bio-fibre
By Technology	Dry-process · wet-process · binder systems
By Application	Wall · roof · floor · acoustic insulation
By End User	Builders · developers · architects · specifiers · retrofit programmes
By Building Type	Residential · commercial · institutional · heritage retrofit
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 VI — Sustainability, ESG, SDG, Climate and Natural-Capital Intelligence

Part VII — Supply Chain, Policy, Legal, Economics and Finance

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

Part IX — Annexes, Directories and Reference Material

COMPETITIVE & INVESTMENT SNAPSHOT

The competitive field spans specialist bio-insulation producers, established insulation 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:

STEICO SE · GUTEX Holzfaserplattenwerk H. Henselmann GmbH + Co. KG · SOPREMA SAS (Pavatex) · Hunton Fiber AS · Saint-Gobain Isover · and 20+ further profiled players across producers, technology licensors and fibre 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 bio-based insulation boards 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.