Point-Source CCUS Modules for Industrial Emitters

ANMD-MRS14-136 · Carbon Management & Climate Technologies

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

Point-source CCUS modules capture CO_2 at industrial emission sources — cement, steel, chemicals, refining and waste-to-energy plants where process emissions are otherwise unavoidable. Designed as tailored or modular skid systems, they target the hard-to-abate industries central to deep decarbonisation. This decision-grade study sizes the global market three ways — value, capture capacity and units — across industry application, configuration, application and end-user, across seven regions and four scenarios to 2032, with outlooks to 2050.

SUSTAINABILITY & SDG IMPACT — THE ANMD LENS

Sustainability is this report's backbone. Point-source CCUS decarbonises industries with no easy alternative, while raising energy-penalty, storage-permanence and competitiveness questions that process integration and policy design must address.

Mapped Sustainable Development Goals:

SDG 13	SDG 9	SDG 12	SDG 7	SDG 17
Climate Action	Industry & Innovation	Responsible Consumption	Affordable Clean Energy	Partnerships for Goals

Measurable sustainability outcomes assessed:

- Compliance-grade abatement at heavy industrial emitters
- Tax-credit qualification and a captured CO_2 stream
- Process-tailored, lower-cost modular capture
- Energy penalty, permanence, carbon-leakage and lock-in 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	**5** 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 industrial-CCUS leader (Germany, United Kingdom, Netherlands, Norway) on the EU ETS, CBAM and storage hubs; North America is 45Q-driven (United States); Asia Pacific is the fastest-growing engine; other regions assessed on their own merits.

MARKET OVERVIEW

From pilot to commercial deployment at the world's heaviest emitters.

Point-source CCUS is moving from pilot to commercial deployment at the world's heaviest emitters. Demand is driven by industrial decarbonisation mandates, carbon pricing and tax credits, against high capture cost, process-integration complexity and first-of-a-kind financing risk. The market is read three ways — value, capture capacity and units — and forecast under four scenarios, each region reported separately.

- **Europe leads industrial CCUS** — Germany, the United Kingdom, the Netherlands and Norway, on the EU ETS, CBAM and North Sea storage
- **North America scales on 45Q** — United States and Canada, on tax credits, DOE funding and industrial-hub capture
- **Asia Pacific grows fastest** — China, Japan and South Korea, on vast heavy industry and national CCUS programmes
- **Process integration is the differentiator** — tailoring capture to specific industrial flue gases and heat sources determines cost and feasibility

REGIONAL OUTLOOK

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

Region	Stage	Lead Country Markets & Drivers
Europe	Industrial-CCUS leader	Germany, United Kingdom, Netherlands, Norway — EU ETS, CBAM, storage hubs
North America	45Q-driven	United States, Canada — 45Q tax credit, DOE hubs, corporate offtake
Asia Pacific	Fastest growth	China, Japan, India, South Korea, Australia — industrial decarbonisation, storage
Middle East	Oil-and-gas CCUS	Saudi Arabia, UAE — oil-and-gas CCUS, sovereign investment
Latin America	Emerging	Brazil, Chile — bioenergy, nature-based and industrial projects
Africa	Frontier	South Africa, Egypt, Kenya — industrial emitters, removal potential, blended finance

KEY MARKET DRIVERS & RESTRAINTS

Drivers	Restraints
• Industrial decarbonisation mandates • EU ETS, CBAM & 45Q incentives • Hard-to-abate cement & steel pressure • Modular & process-tailored capture gains • CO_2-storage & hub infrastructure	• High capture cost & energy penalty • Process-integration & retrofit complexity • CO_2 transport & storage dependency • First-of-a-kind financing risk • Competitiveness & carbon-leakage concerns

SEGMENTATION SNAPSHOT

By Industry Application	Cement-plant CCUS · steel & metals CCUS · chemical & refinery CCUS · waste-to-energy CCUS · modular skid CCUS
By Configuration	Retrofit · new-build integrated · modular / skid
By Application	Cement · steel · chemicals & refining · waste-to-energy
By End User	Industrial emitters · corporates · project developers · governments
By Business Model	Equipment sales · EPC · Capture-as-a-Service
By Scale	Pilot · demonstration · commercial / megatonne-scale

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.

COMPETITIVE & INVESTMENT SNAPSHOT

The competitive field spans modular-capture specialists, capture-technology licensors, and engineering and industrial-gas majors. Deal activity — M&A, technology acquisition and platform expansion — signals a market consolidating around scalable, bankable, deployment-ready solutions.

Representative players profiled in the full report:

Carbon Clean Solutions Limited · Aker Carbon Capture ASA · Mitsubishi Heavy Industries, Ltd. · Shell plc (CANSOLV) · SLB Capturi AS · and further profiled specialists and licensors

Investment intelligence: venture, infrastructure, development, climate and blended finance, green bonds and sustainability-linked loans — culminating in a bankability assessment and a clear investment verdict.

KEY QUESTIONS THIS REPORT ANSWERS

- ? How large is the global point-source CCUS market, and how fast will it grow to 2032?
- ? Which regions, industries and configurations offer the strongest risk-adjusted opportunity?
- ? How do capture cost, process integration and storage dependency change the bankability case?
- ? Who leads, and where is the competitive and patent white space?
- ? Is the investment case bankable — and under what conditions?
- ? How does the category align with the SDGs, industrial decarbonisation and disclosure regulation?

WHY ANMD — THE DIFFERENCE

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

- **Triangulated sizing** — every market read three ways (value (US$), capture/abatement capacity ($MtCO_2$/yr) and units) so value, capacity and volume 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, conditions-based investment verdict.

WHO SHOULD BUY THIS REPORT

Investors and infrastructure / PE funds, cement / steel / chemical and refining emitters, capture-technology vendors and EPCs, project developers, CO_2-storage operators, policymakers, lenders and ESG teams, plus strategic corporate planners and decision-makers.

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.