

Carbon and Soil-Health Quantification Platforms

ANMD-MRS11-110 · AI & Digital Agriculture 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

Carbon and soil-health quantification platforms are the measurement backbone of agricultural climate markets — the soil-carbon MRV (measurement, reporting and verification), remote-sensing models, sensor-plus-sampling hybrids and credit-origination systems that quantify soil carbon and health for carbon credits and sustainable-farming claims. This decision-grade study sizes the global market three ways — value, hectares/acres enrolled and credits/subscriptions — across platform type, output focus 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 — and the report's subject. These platforms quantify climate mitigation (soil-carbon sequestration), soil health, biodiversity co-benefits and the integrity of farm-level carbon claims.

Mapped Sustainable Development Goals:

SDG 2 Zero Hunger	SDG 8 Decent Work & Economic Growth	SDG 12 Responsible Consumption	SDG 13 Climate Action	SDG 15 Life on Land
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Measurable sustainability outcomes assessed:

- Climate mitigation via soil-carbon sequestration
- Soil-health and biodiversity co-benefits
- Integrity of farm-level carbon claims
- Additionality, permanence and equitable benefit-sharing 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. North America leads programmes and platforms; Europe drives regulation-aligned MRV; measurement-tech specialists add rigour; other regions assessed on their own merits.

MARKET OVERVIEW

From enrolment to defensible MRV — where credible measurement determines credit quality and trust.

Carbon and soil-health quantification is emerging with voluntary-carbon and regenerative-agriculture momentum. Demand is driven by carbon-credit markets, corporate scope-3 and supply-chain commitments, and regenerative-practice incentives — with MRV credibility and cost central to scalability. The market is read three ways — value, hectares/acres enrolled and credits/subscriptions — and forecast under four scenarios, each region reported separately.

- **North America leads programmes and platforms** — United States, anchoring carbon programmes and platforms
- **Europe drives regulation-aligned MRV** — Belgium, Denmark and the United Kingdom, on CAP/CSRD-aligned demand
- **Measurement-tech specialists add rigour** — advancing direct and remote quantification
- **MRV credibility is the differentiator** — defensible measurement and verification — not just enrolment — determines credit quality and trust

REGIONAL OUTLOOK

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

Region	Stage	Lead Markets & Drivers
North America	Programme leader	United States — carbon programmes & platforms
Europe	Regulation-aligned MRV	Belgium, Denmark, UK — CAP/CSRD-aligned MRV
Asia Pacific	Emerging	India, Australia — soil-carbon programmes
Latin America	Emerging	Brazil — smallholder carbon
Africa	Frontier	Kenya, South Africa — soil-carbon credits
Middle East	Emerging	UAE, Israel — arid-soil carbon & sovereign climate

KEY MARKET DRIVERS & RESTRAINTS

Drivers	Restraints
• Voluntary-carbon-market growth • Corporate scope-3 & supply-chain commitments • Regenerative-agriculture incentives • Remote-sensing & soil-measurement advances • Regulatory & disclosure alignment (CSRD)	• MRV credibility & additionality concerns • Measurement cost & accuracy trade-offs • Carbon-price volatility & market trust • Permanence & reversal risk • Farmer enrollment & data burden

SEGMENTATION SNAPSHOT

By Platform Type	Soil-carbon MRV · remote-sensing carbon models · sensor + sampling hybrid · carbon-credit origination · soil-health analytics
By Output Focus	Soil-carbon quantification · carbon credits · soil-health metrics
By Application	Row crops · specialty / horticulture · livestock
By End User	Farmers · agribusiness · co-operatives · agronomists
By Method	Direct sampling · remote-sensing model · hybrid
By Business Model	Hardware sales · SaaS subscription · services

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 — Carbon and Soil-Health Quantification Platforms
- › 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
- › Chapter 15. Latin America Market Intelligence
- › Chapter 16. Africa Market Intelligence
- › Chapter 17. Middle East Market Intelligence
- › 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

Part VI — Sustainability, ESG, SDG, Climate and Natural-Capital Intelligence

- › Chapter 28. Sustainability Intelligence Suite
- › Chapter 29. ESG Intelligence and Double Materiality
- › Chapter 30. ESG and Sustainability Framework Alignment
- › Chapter 31. SDG Intelligence
- › Chapter 32. Carbon, Net-Zero and Climate-Mitigation Intelligence
- › Chapter 33. Water, Biodiversity and Natural-Capital Intelligence
- › Chapter 34. Circular Economy and Resource-Security Intelligence
- › Chapter 35. Social Impact, Human Capital and Community Intelligence
- › Chapter 36. Climate Risk, Adaptation and Resilience Intelligence

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

- › Chapter 37. Value Chain, Supply Chain and Geopolitical Intelligence
- › Chapter 38. Policy, Regulation and Incentive Intelligence
- › Chapter 39. Legal, Contracting and Risk-Allocation Intelligence
- › Chapter 40. Unit Economics, CAPEX, OPEX and Return Analysis
- › Chapter 41. Investment, Sustainable Finance and Bankability Intelligence

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

- › Chapter 42. Scenario Analysis and Future Intelligence
- › 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 carbon-programme originators, MRV-tech specialists and soil-health analytics firms. Deal activity — protocol partnerships, measurement-tech acquisitions and offtake agreements — signals a market consolidating around credible, defensible MRV.

Representative players profiled in the full report:

Indigo Ag, Inc. · Bayer AG (Bayer Carbon) · Corteva, Inc. (Granular) · Nori LLC · Boomitra, Inc. · Regrow Ag, Inc. · Agreena ApS · and 20+ further profiled players across programme originators and MRV-tech specialists.

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

KEY QUESTIONS THIS REPORT ANSWERS

- How large is the global carbon and soil-health quantification market, and how fast will it grow to 2032?
- Which regions, countries and segments offer the strongest risk-adjusted opportunity?
- How does MRV credibility change credit quality and value?
- 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, carbon-claim integrity and benefit-sharing expectations?

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 view in a single architecture.

- **Triangulated sizing** — every market read three ways so value, volume and the physical-unit 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, conditional investment view.

WHO SHOULD BUY THIS REPORT

Investors, growers, agribusiness, co-operatives, OEMs, retailers, lenders and policymakers, and 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.