Bioplastic Feedstocks

ANMD-MRS21-205 · Industrial & Environmental Biotechnology

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

Bioplastic feedstocks are the renewable carbon sources and monomers — from sugar, starch, lignocellulosic and waste streams — that supply PLA, PHA/PHB and bio-PE/bio-PET production, displacing fossil feedstocks at the base of the plastics value chain. Feedstock choice determines cost, carbon footprint and end-of-life behaviour, making it the decisive lever for bioplastics' competitiveness. This decision-grade study sizes the global market in value and volume (with bio-content as a sustainability lens), across feedstock type, generation, 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. Beyond fossil substitution, bioplastic feedstocks deliver measurable renewable-carbon content, life-cycle-emission reduction and waste-stream valorisation, strengthening the circular-plastics story.

Mapped Sustainable Development Goals:

SDG 12	SDG 13	SDG 14
Responsible Consumption	Climate Action	Life Below Water

Measurable sustainability outcomes assessed:

- Renewable-carbon content displacing fossil feedstock
- Life-cycle-emission reduction and waste-stream valorisation
- Compostable and marine-degradable polymer routes
- Land-use and food-competition, end-of-life claims and bio-content substantiation 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 leads on regulation (Italy, Germany, Netherlands) on single-use-plastics rules and packaging directives; Asia Pacific is the production engine (China, Thailand, Japan); North America accelerates on brand commitments; other regions assessed on their own merits.

MARKET OVERVIEW

From first-generation crops toward waste-derived and lignocellulosic carbon.

Bioplastic feedstocks are moving from first-generation crops toward waste-derived and lignocellulosic carbon. Demand is driven by plastics-regulation, brand decarbonisation pledges and packaging circular-economy mandates, against feedstock-versus-fossil cost, food-versus-feedstock tension and end-of-life infrastructure gaps. The market is read in value and volume — with bio-content as a sustainability lens — and forecast under four scenarios, each region reported separately.

- **Europe leads on regulation** — single-use-plastics rules, packaging directives and bio-based-content targets
- **Asia Pacific is the production engine** — China, Thailand and Japan supplying PLA and PHA capacity and feedstock
- **North America is accelerating** — brand commitments, compostable-packaging demand and feedstock availability
- **Feedstock-driven footprint is the differentiator** — waste and second-generation carbon cut both cost exposure and life-cycle emissions versus food-crop routes

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	Regulation leader	Italy, Germany, Netherlands — SUP rules, packaging directives, bio-content targets
Asia Pacific	Production engine	China, Thailand, Japan — PLA / PHA capacity, feedstock supply
North America	Accelerating	United States — brand pledges, compostable demand, feedstock base
Latin America	Emerging	Brazil — sugarcane bio-PE, feedstock advantage
Africa	Frontier	South Africa — agricultural-residue feedstock potential
Middle East	Frontier	UAE, Saudi Arabia — diversification, bio-based investment

KEY MARKET DRIVERS & RESTRAINTS

Drivers	Restraints
• Single-use-plastics & packaging regulation • Brand decarbonisation & bio-content pledges • Circular-economy & compostability mandates • Fossil-feedstock price & carbon exposure • Second-generation & waste-feedstock advances	• Feedstock cost vs fossil parity • Food-versus-feedstock land-use tension • Lignocellulosic conversion cost & maturity • End-of-life infrastructure & compost access • Bio-content verification & certification

SEGMENTATION SNAPSHOT

By Feedstock Type	Sugar / starch · lignocellulosic · waste / sidestream · oil-based
By Generation	First-generation · second-generation · advanced / waste
By Application	PLA · PHA / PHB · bio-PE / bio-PET · other biopolymers
By End User	Polymer producers · packaging · converters · brands
By Business Model	Feedstock sale · offtake / supply · managed-service · licensing
By Deployment Scale	Pilot · demonstration · commercial

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 dedicated biotech specialists, established industrial-biotech majors and integrated producers. 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:

Total Corbion PLA (TotalEnergies Corbion) · Novamont S.p.A. · Braskem S.A. · BASF SE · Kaneka Corporation · and further profiled feedstock and polymer players incl. Carbios SA, Avantium N.V. and Roquette Frères S.A.

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 bioplastic-feedstocks market, and how fast will it grow to 2032?
- ? Which regions, feedstock types and generations offer the strongest risk-adjusted opportunity?
- ? How do lignocellulosic and waste-stream routes change cost and life-cycle carbon?
- ? 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, land-use and bio-content substantiation?

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$) and volume (tonnes), with bio-content (%) as a sustainability lens) 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, feedstock and polymer producers, packaging converters and brands, conversion-technology developers, recyclers, 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.