ANMD-MRS32-311 · Sustainable Aviation & Maritime

Sustainable Aviation Fuel

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

Sustainable aviation fuel (SAF) decarbonises flight by replacing fossil jet fuel with low-carbon pathways — HEFA / Bio-SAF, Alcohol-to-Jet (AtJ) and Power-to-Liquid (e-SAF). Drop-in compatible with existing engines and infrastructure, SAF is aviation's primary near-term lever to cut lifecycle emissions. This decision-grade study sizes the global market three ways — value, litres produced and tonnes CO2 avoided — across production pathway, sub-type, component 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 fuel performance, SAF delivers measurable lifecycle-emissions reduction, fossil-fuel displacement and aviation decarbonisation, while feedstock sourcing and land-use shape the natural-capital story.

Mapped Sustainable Development Goals:

SDG 7	SDG 9	SDG 12	SDG 13	SDG 15
Affordable Clean Energy	Industry & Infrastructure	Responsible Consumption	Climate Action	Life on Land

Measurable sustainability outcomes assessed:

- Lifecycle CO2 avoided versus fossil jet fuel
- Fossil-fuel displacement and aviation decarbonisation
- Feedstock sustainability, land-use and ILUC as material risks
- Pathway energy intensity and water footprint

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 mandates and e-SAF; North America scales on HEFA and incentives; Asia Pacific expands on feedstock and refining capacity.

MARKET OVERVIEW

From pilot volumes to mandated scale — where a drop-in molecule decarbonises a hard-to-abate sector.

The sustainable aviation fuel market is moving from pilot volumes to mandated commercial scale. Demand is driven by aviation-decarbonisation targets, blending mandates and corporate offtake, supported by maturing HEFA, AtJ and Power-to-Liquid pathways. The market is read three ways — value, litres produced and tonnes CO2 avoided — and forecast under four scenarios, each region reported separately.

- Europe leads on mandates, with the EU ReFuelEU blending trajectory and e-SAF ambition driving offtake
- North America scales on HEFA, with United States incentives and feedstock access anchoring supply
- Asia Pacific expands on feedstock and refining — China, Singapore and India building production capacity
- Production pathway and sub-type segment the value — across HEFA / Bio-SAF, AtJ and Power-to-Liquid e-SAF

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	Mandate leader	Germany, UK, France, Netherlands — ReFuelEU, e-SAF, corporate offtake
North America	Scaling	United States, Canada — HEFA capacity, tax incentives, feedstock access
Asia Pacific	Build & scale	China, Singapore, India, Japan — refining, feedstock, airline demand
Middle East	High-growth	UAE, Saudi Arabia — e-SAF, sovereign capital, energy diversification
Latin America	Emerging	Brazil, Panama — ethanol-to-jet, biofuel feedstock
Africa	Frontier	South Africa, Egypt, Morocco — feedstock, refining, export routes

KEY MARKET DRIVERS & RESTRAINTS

Drivers	Restraints
• Aviation-decarbonisation & net-zero targets • Blending mandates (ReFuelEU, national schemes) • Corporate & airline offtake commitments • Feedstock & refining capacity build-out • HEFA, AtJ & Power-to-Liquid technology gains	• Production cost vs fossil jet fuel • Feedstock availability & sustainability limits • Certification & blending-wall constraints • Green-hydrogen & e-SAF cost • Policy & incentive uncertainty

SEGMENTATION SNAPSHOT

By Production Pathway	HEFA / Bio-SAF · Alcohol-to-Jet (AtJ) · Power-to-Liquid (e-SAF)
By Application	Low-blend · high-blend · 100% (future)
By End User	Airlines · airports · fuel suppliers · corporate / SAF buyers
By Component	Feedstocks · catalysts · reactors · hydroprocessing · blending · logistics
By Deployment Scale	Pilot · distributed · utility-scale
By Business Model	Fuel supply · offtake contract · service · as-a-service

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 integrated energy majors, specialist biofuel and e-fuel producers and technology licensors. Deal activity — offtake agreements, capacity expansions and pathway-licensing deals — signals a market consolidating around bankable, certified production.

Representative players profiled in the full report:

Neste Oyj · World Energy, LLC · Gevo, Inc. · LanzaJet, Inc. · TotalEnergies SE · and 20+ further profiled players across feedstocks, pathways and refining.

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

KEY QUESTIONS THIS REPORT ANSWERS

- ? How large is the global sustainable aviation fuel market, and how fast will it grow to 2032?
- ? Which regions, countries and pathways offer the strongest risk-adjusted opportunity?
- ? How do production economics change returns across HEFA, AtJ and e-SAF?
- ? Who leads, and where is the competitive and patent white space?
- ? Is the investment case bankable — and under what conditions?
- ? How does the fuel align with the SDGs and emerging 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 adoption 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, evidence-based investment recommendation.

WHO SHOULD BUY THIS REPORT

Investors and infrastructure / PE funds, airlines and airports, fuel suppliers and energy majors, corporate SAF buyers, policymakers and lenders, and corporate strategy and ESG teams, alongside 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.