

ANMD-MRS31-307 · Space Sustainability & Applications

On-Orbit Servicing Satellites

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

On-orbit servicing satellites extend satellite life and refuel assets — the circular economy for orbit. Life-extension, refueling and repair/upgrade servicers use robotic arms, docking systems and refueling interfaces to keep valuable satellites operating longer, reducing replacement launches and waste. The pay-off is measurable: extended asset life, deferred replacement and reduced orbital waste. This report is a comprehensive, decision-grade study of that market across servicer type, sub-type, component, application, end user and business model, spanning history 2020–2024, a 2025 base year, a 2025–2032 forecast and long-term outlooks to 2035, 2040 and 2050.

SUSTAINABILITY & SDG IMPACT — THE ANMD LENS

The sustainability case is the report's backbone. Beyond operational performance, this market delivers measurable asset-life extension, replacement-launch avoidance and orbital circularity, while servicing governance shapes the social-licence story.

Mapped Sustainable Development Goals:

SDG 2 Zero Hunger	SDG 6 Clean Water	SDG 7 Affordable Energy	SDG 13 Climate Action	SDG 15 Life on Land
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Measurable sustainability outcomes assessed:

- Asset-life extension and on-orbit refuelling value
- Debris mitigation and active end-of-life management
- Material reuse and circular orbital economy
- Servicing-mission safety and orbital coordination 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. Across the seven reporting regions, the report separates commercial and institutional leaders from high-growth and emerging markets, profiling named country sub-markets, space programmes and project pipelines in each. North America and Europe anchor near-term value; Asia Pacific scales on national and NewSpace programmes; while the Middle East, Latin America and Africa are assessed on their own merits — for space-agency build-out, EO applications and development — rather than aggregated away.

MARKET OVERVIEW

From single-life assets to serviced fleets — where on-orbit servicing turns satellites into extendable, circular infrastructure.

On-orbit servicing is moving from demonstration to commercial operation. Demand is driven by asset-life value, GEO-fleet economics and circular-orbit goals, supported by maturing rendezvous and robotics. The market is read three ways — value, servicer missions and serviced assets — and forecast under conservative, base, accelerated and disruption scenarios, with every projection resolved to the 2025 base year and each region reported separately rather than folded into Rest of World.

- North America leads commercial servicing, anchored by the United States, where Northrop Grumman/SpaceLogistics and Maxar lead life-extension.
- Asia Pacific is advancing, with Japan's Astroscale pioneering servicing and debris missions.
- Europe is building capability, with France and Italy developing servicing and robotics.
- Servicer type and sub-type segment the value, across life-extension, refueling and repair/upgrade servicers, each with distinct 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
North America	Commercial leader	United States, Canada — NewSpace, commercial constellations, defense demand
Europe	Institutional anchor	France, Germany, Italy, United Kingdom — ESA, Copernicus, primes, sustainability rules
Asia Pacific	Growth engine	China, India, Japan, Australia — national programmes, NewSpace, manufacturing
Middle East	High-growth	UAE, Saudi Arabia — space agencies, sovereign investment, diversification
Latin America	Emerging	Brazil, Argentina — EO applications, NewSpace startups
Africa	Frontier	South Africa, Egypt, Nigeria — EO for agriculture, climate, development

KEY MARKET DRIVERS & RESTRAINTS

Drivers	Restraints
<ul style="list-style-type: none"> • Asset-life-extension & GEO-fleet value • Replacement-launch deferral & cost saving • Circular-economy & sustainability goals • Defense & resilience requirements • Rendezvous, robotics & docking technology gains 	<ul style="list-style-type: none"> • Rendezvous & docking complexity • Standardisation & interface gaps • High mission CAPEX & risk • Regulatory & liability uncertainty • Cooperative-vs-uncooperative target limits

SEGMENTATION SNAPSHOT

By Servicer Type	Life-extension · refueling · repair/upgrade
By Sub-Type	GEO servicing · LEO servicing · tug/relocation
By Component	Robotic arms · docking systems · refueling interfaces · sensors · propulsion
By Application	Life extension · refueling · repair & upgrade · relocation
By End User	Satellite operators · space agencies · defense · insurers
By Business Model	Servicing-as-a-service · mission contract · lease

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 — On-Orbit Servicing Satellites
- › 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 established space primes, NewSpace operators and specialist technology providers.

Representative players profiled in the full report:

Northrop Grumman Corporation / SpaceLogistics LLC · Astroscale Holdings Inc. · Maxar Intelligence Inc. · Airbus SE · Thales Alenia Space SAS · and further profiled players across the value chain.

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

KEY QUESTIONS THIS REPORT ANSWERS

- ? How large is the global On-Orbit Servicing Satellites market, and how fast will it grow to 2032?
- ? Which regions, countries and segments offer the strongest risk-adjusted opportunity?
- ? How do the category economics change returns versus incumbent approaches?
- ? Who leads, and where is the competitive and patent white space?
- ? Is the investment case bankable — and under what conditions?
- ? How does the technology 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 multiple ways so value, volume and 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, structured investment recommendation.

WHO SHOULD BUY THIS REPORT

Investors and infrastructure / PE funds, satellite operators, agencies, defence users, insurers, servicing providers, lenders, 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.