Special Report

The Growth of the Space Economy

aranca

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The Expanding Space Economy: Foundation for a Multi-Trillion Dollar Frontier

Key Trends in Private Equity for Space Economy

Market Outlook:

The global space economy is projected to grow from ~$600 billion in 2024 to $1.8 trillion by 2035, driven by the demand for space-based infrastructure, interconnectivity, sovereign autonomy, and digital transformation. This expansion is underpinned by commercial innovation, declining launch costs, and increased public-private collaboration. Applications across telecom, climate monitoring, mobility, and defense are reshaping economic dependencies in both developed and emerging markets.

Launch Activity:

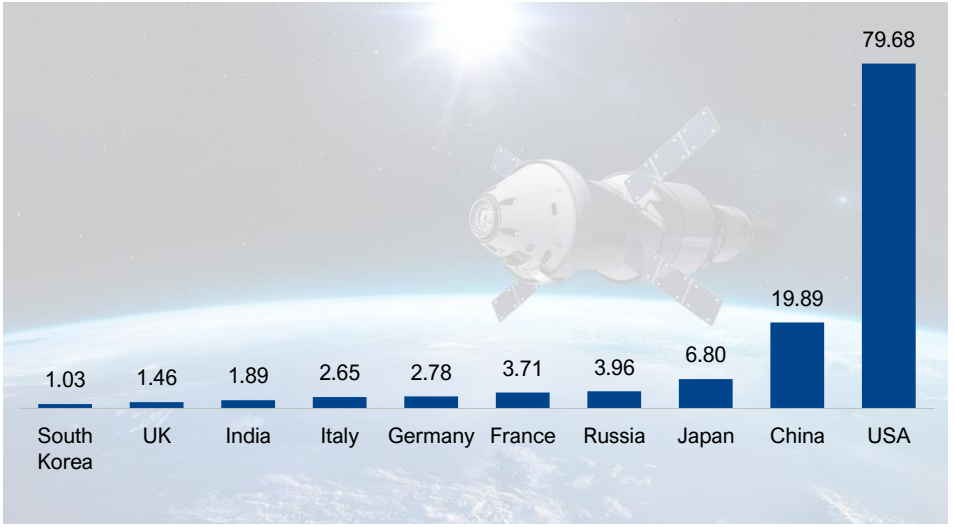
In 2023, over 1,500 tons of spacecraft were launched, up from 1,000 tons in 2022—representing a 50% YoY increase. Starlink alone accounted for 95% of this increase, while emerging constellations from China and other regional players expanded their presence. By Q1 2025, commercial constellations made up over 85% of total launch tonnage, highlighting a shift from government-led launches to scalable, low-orbit commercial networks.

Spacecraft Market Concentration:

The spacecraft manufacturing and launch services market is currently valued at $6–7 billion and projected to reach $9–11 billion by 2030. While the U.S. and China still account for ~70% of global government space budgets, commercial activity—particularly in the small-sat and constellation segment—is gaining traction. The market structure remains bifurcated: low-cost, high-volume commercial players dominate unit share, while value remains concentrated in large, specialized platforms.

Government Expenditure on Space Programs (2024) (USD Bn)

In 2024, the global space budget rose to $135 billion, a 10% YoY increase from 2023. The United States alone spent $79.7 billion, followed by China ($19.9B), Japan ($6.8B), and other emerging space powers. Cumulative global spending is forecast to surpass $144 billion by 2030, as more countries localize launch and satellite capabilities.



Satellite Outlook:

From 2024 through the early 2030s, an average of 3,700 satellites are expected to be launched annually—equating to ~7 tons per day. This implies a cumulative deployment of 37,000–40,000 satellites by 2033, driven by broadband access, Earth observation and IoT use cases. The satellite market—including hardware, services, and data—is expected to reach $100–450 billion by 2035, depending on adoption curves and satellite miniaturization technologies. While mega-constellations dominate volumes, larger institutional satellites will continue to command market value.

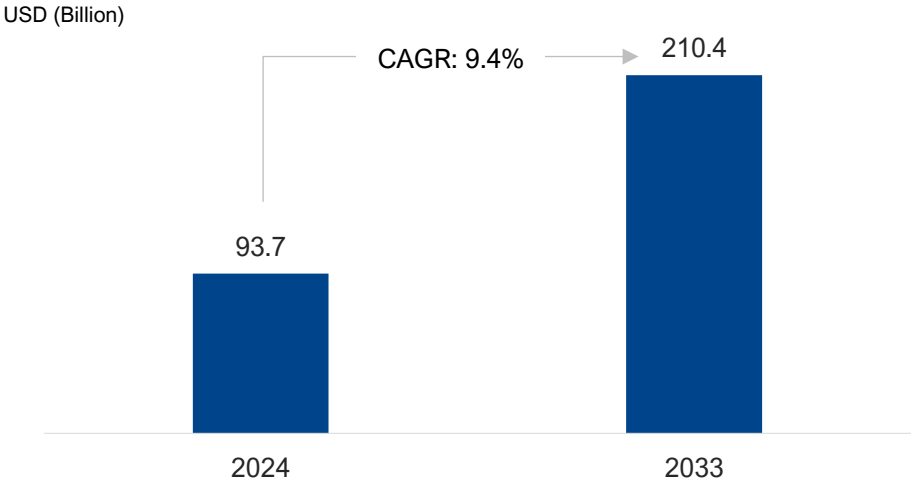
Source: *McKinsey & Company, Euroconsult Aranca Research*

Emerging Markets in the Space Economy

Satellite Communication Services: The Backbone of Global Connectivity

- Satellite communication remains the core infrastructure layer of the space economy. As of 2024, the SatCom market is valued at $93.7 billion and is projected to grow to $210.4 billion by 2033, representing a CAGR of over 9%. This rapid growth is being driven by the mass deployment of mega-constellations, including SpaceX's Starlink, Amazon's Kuiper, China's G60 and GuoWang, which together are expected to account for 65% of all satellites launched globally through 2033.
- According to Novaspace, an average of 3,700 satellites will be launched annually during this period. However, while these four mega-constellations dominate unit volumes, they contribute just 14% of the satellite manufacturing and launch market value, due to vertically integrated and highly optimized cost structures.
- In contrast, ~2,900 large satellites (above 500 kg), operated by 170 institutional and commercial players, will represent 70% of the market value but account for only 7% of satellite units.

Satellite Communication Services Market Size and Growth Forecast



Technology Trends & Strategic Outlook

- This fragmentation in volume vs. value is reshaping competitive dynamics. Incumbent satellite manufacturers face margin compression as constellation operators internalize key functions.
- Meanwhile, hybrid LEO–MEO–GEO architectures are gaining ground, driven by the emerging demand for multi-orbit, edge-compute-enabled, and software-defined satellites.
- SatCom use cases now extend far beyond fixed broadband. They include global 5G/6G backhaul, mobile connectivity for aviation and maritime sectors, satellite-to-device links, IoT grid infrastructure, and secure, defense-grade tactical relays.
- Government clients, accounting for 75% of market value, are increasingly demanding commercial-grade innovation integrated into secure national frameworks. As we approach 2030, SatCom will be an essential enabler of next-gen connectivity and global digital infrastructure.

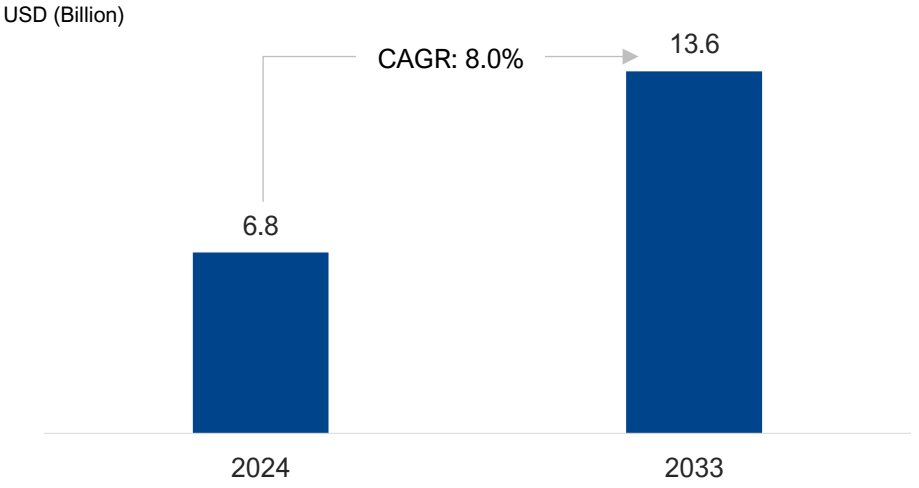
Source: *Novaspace, Grand View Research, Aranca Research*

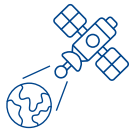
Emerging Markets in the Space Economy

Earth Observation Services: EO's Role in a Data-Driven World

- The Earth Observation (EO) market, valued at $6.8 billion in 2024, is expected to grow to $13.6 billion by 2033. The growth is driven by the expanding relevance of EO data in ESG disclosure, climate risk mitigation, precision agriculture, defense monitoring, and disaster response. Over 800 EO satellites were active as of 2023, and Novaspace projects this number will rise to ~1,430 by 2033, factoring in replenishments and system upgrades.
- The market is seeing a shift toward diversified sensing technologies, such as SAR (synthetic aperture radar), hyperspectral, thermal infrared, and GHG (greenhouse gas) detection sensors. These are enabling new verticals such as methane detection, soil moisture analytics, glacier melt forecasting, and maritime surveillance.

Earth Observation Services Market Size and Growth Forecast





Technology Trends & Strategic Outlook

- Crucially, EO revenue is transitioning from data sales to high-value analytics and software-as-a-service. Value-added services (VAS) now comprise over 45% of commercial revenue and include level 3/4 image processing, real-time change detection, and predictive anomaly monitoring. Major clients include sovereign agencies, ESG funds, insurers, agriculture majors, and climate-tech startups.
- Regional trends show that North America led EO revenues in 2023 with a 44% market share, followed by Europe (22%) and Asia (14%).
- By 2033, Asia's share is expected to rise to 23%, fueled by sovereign EO initiatives in India, Southeast Asia, and the MENA region.
- EO data is increasingly integrated into digital twin environments and MRV (measurement, reporting, and verification) models for climate finance. Platform-as-a-Service and Satellite-as-a-Service business models are rising, supporting real-time insights and secure mission-driven data fusion.
- With 150+ commercial EO constellations in development globally, the decade ahead will be defined by interoperability, analytics-driven delivery, and institutionalization of EO as a mainstream geospatial data layer.

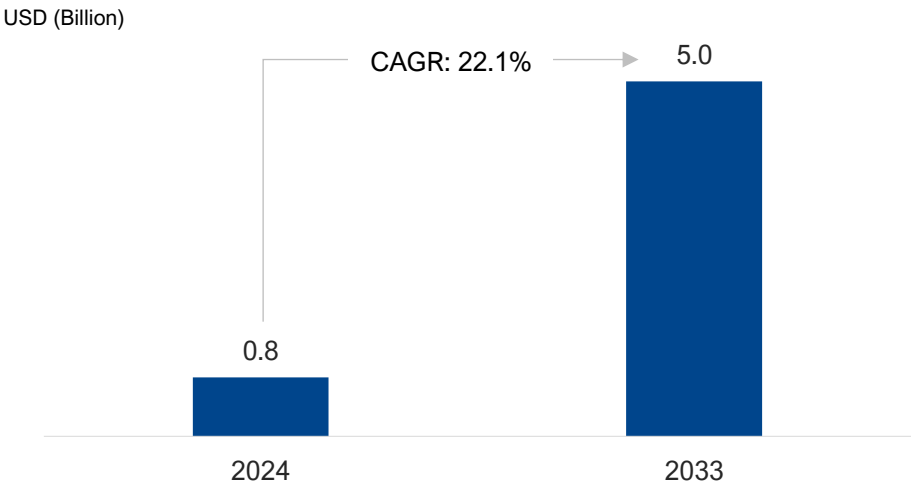
Source: *Novaspace, Grand View Research, Aranca Research*

Emerging Markets in the Space Economy

Space Tourism: From Orbital Luxury to Scalable Experience

- Space tourism has evolved into a formalized and investable segment of the commercial space economy. In 2024, the global space tourism market stood at $830 million. Projections indicate strong growth toward $5 billion by 2033. The industry's expansion is driven by falling launch costs, reusable vehicle economics, and a rising HNWI appetite for experiential ultra-luxury travel.
- The market is bifurcated into suborbital and orbital offerings. Suborbital flights, operated by Blue Origin and Virgin Galactic, are priced between $250,000–$450,000 and offer 10–15 minutes of weightlessness and Earth viewing. As of mid-2025, both companies have conducted dozens of commercial missions with a combined backlog of over 1,500 paying customers. Orbital flights, led by SpaceX and Axiom Space, range from $50 million to $70 million per seat, offering several days in orbit, often docked at the ISS or private stations.

Space Tourism Market Size and Growth Forecast



Technology Trends & Strategic Outlook

- Infrastructure for this industry is expanding quickly. Axiom and Vast are developing commercial space stations and orbital hospitality modules expected to be operational by 2027–2028. Spaceport America and commercial pads at Kennedy Space Center are also scaling capacity. Reusable launch systems—most notably Falcon 9 and New Shepard—have cut per-launch costs by over 80% compared to early 2000s levels.
- The industry is also developing around medical training protocols, insurance frameworks, orbital safety standards, and regulatory bodies. Investors include sovereign wealth funds, aerospace primes, and crossover VC funds. NASA and ESA are partnering with private players to send non-career astronauts on missions combining research and commercial objectives.
- Looking ahead, orbital leisure facilities, zero-gravity manufacturing, lunar flybys, and point-to-point Earth transport could further expand the space tourism opportunity set. As reliability improves and infrastructure matures, space tourism could evolve from a prestige product to a recurring high-value niche segment.

Source: *Novaspace, Grand View Research, Aranca Research*

Global Market Trends

Space Tourism: Space tourism is making significant progress with SpaceX, Blue Origin, and Virgin Galactic offering suborbital and orbital flights. Advances in reusable rockets are reducing costs, enabling a broader audience to experience space travel, and fostering new opportunities for luxury space tourism.

Integration of Artificial Intelligence (AI) in Space Operations: AI is transforming space missions by enabling autonomous spacecraft navigation, real-time data processing, and predictive maintenance of satellites. Its integration enhances mission efficiency and helps overcome challenges in deep-space exploration.

Proliferation of Small Satellites: The deployment of small satellites, including nanosatellites and CubeSats, is accelerating due to their cost-effectiveness and adaptability for diverse applications. These satellites are revolutionizing Earth observation, telecommunications, and IoT connectivity, with thousands being launched annually.

Focus on Space Debris Mitigation: With the increasing risk of space debris, innovative solutions such as debris-removal satellites and laser-equipped technologies are being developed. This ensures the sustainability of satellite constellations and reduces risks for active missions in low Earth orbit.

Development of Secure Satellite Constellations: Projects like the European Union's IRIS² are creating secure satellite networks to provide reliable communication services. These initiatives reduce the reliance on non-European providers, improving data security and supporting global connectivity.

Emergence of Space Logistics and In-Orbit Services: Space logistics is expanding with services like satellite refueling, in-orbit repair, and debris removal, ensuring the longevity of space infrastructure. Companies are exploring partnerships to demonstrate these capabilities and make space operations sustainable.

Private Equity in the Space Economy – Market Trends & Outlook

Key Trends in Private Equity for Space Economy

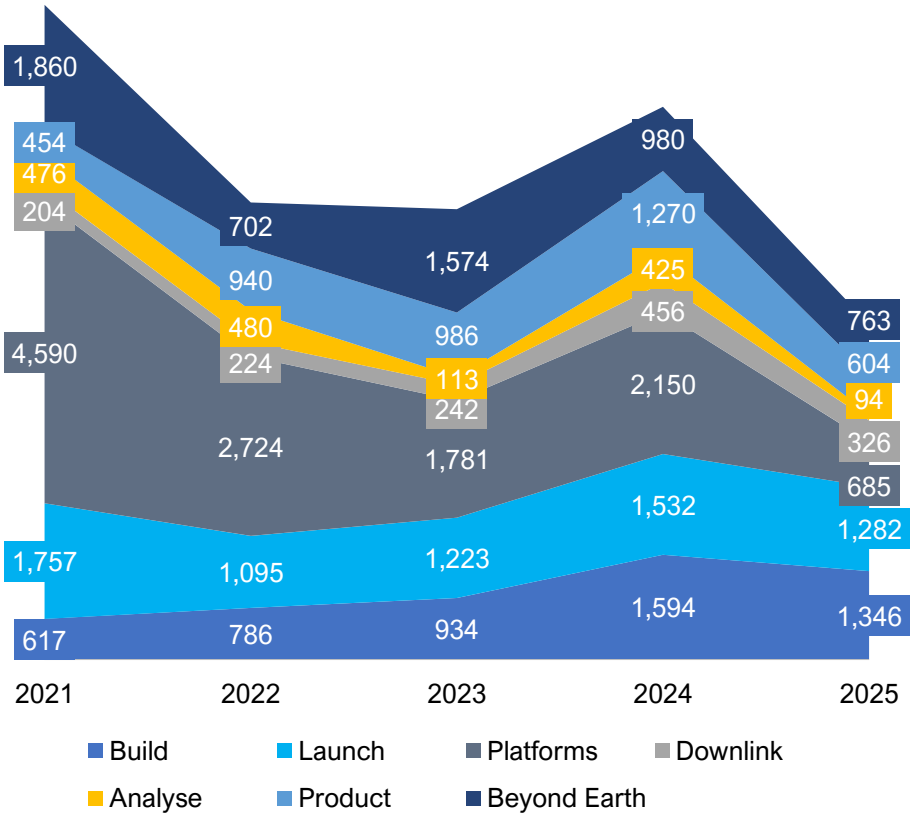
Investments - In 2024, global funding in the space sector **surpassed $5 billion**, driven by growing investor interest in satellite communications, launch services, and emerging technologies. Lower launch costs and increased demand for satellite data were key growth factors.

Build and Product segments led in both deal activity and capital deployed between 2021 and 2025, accounting for over 43% of all deals and regularly receiving the highest annual investments (e.g., Build peaked at ~$1.6B in 2024; Product exceeded $1.2B in 2024). This shows consistent investor confidence in hardware, manufacturing, and mission-critical solutions.

Platforms and Analyze together represented more than 27% of deals and attracted substantial funding, with Platforms alone drawing over $2.1B in 2024. This showcases a growing focus on digital infrastructure, analytics, and advanced data applications within the space sector.

Outlook - The space sector remains an attractive opportunity for private equity, with continued interest in high-growth areas like satellite constellations, space logistics, and in-space manufacturing. As the sector matures, PE firms are expected to focus on scalable business models, government-backed projects, and partnerships to mitigate risks and ensure long-term returns.

Investments by Taxonomy



Source: *Payload Space, Seraphim, Aranca Research*

Regional Investment Trends in the Space Economy

Regional Investment Breakdown – Q2 2025

North America

- North America maintained its leadership, attracting over $3.4 billion in H1 2025—on track to surpass 2024, driven by strong U.S. government, defense, and commercial sector funding.
- In Q2 2025, U.S. space startups raised $3.1 billion—the second-highest quarter on record—driven by strong private funding in launch, satellites, and defense-related ventures.

Europe

- Europe attracted a $954 million in investment in H1 2025, reflecting steady capital inflows since 2021.
- The EU and ESA are expanding sovereign space investments, including a €10.5 billion secure satellite constellation (IRIS²) and proposals for a €1 billion defense-focused Earth observation program.

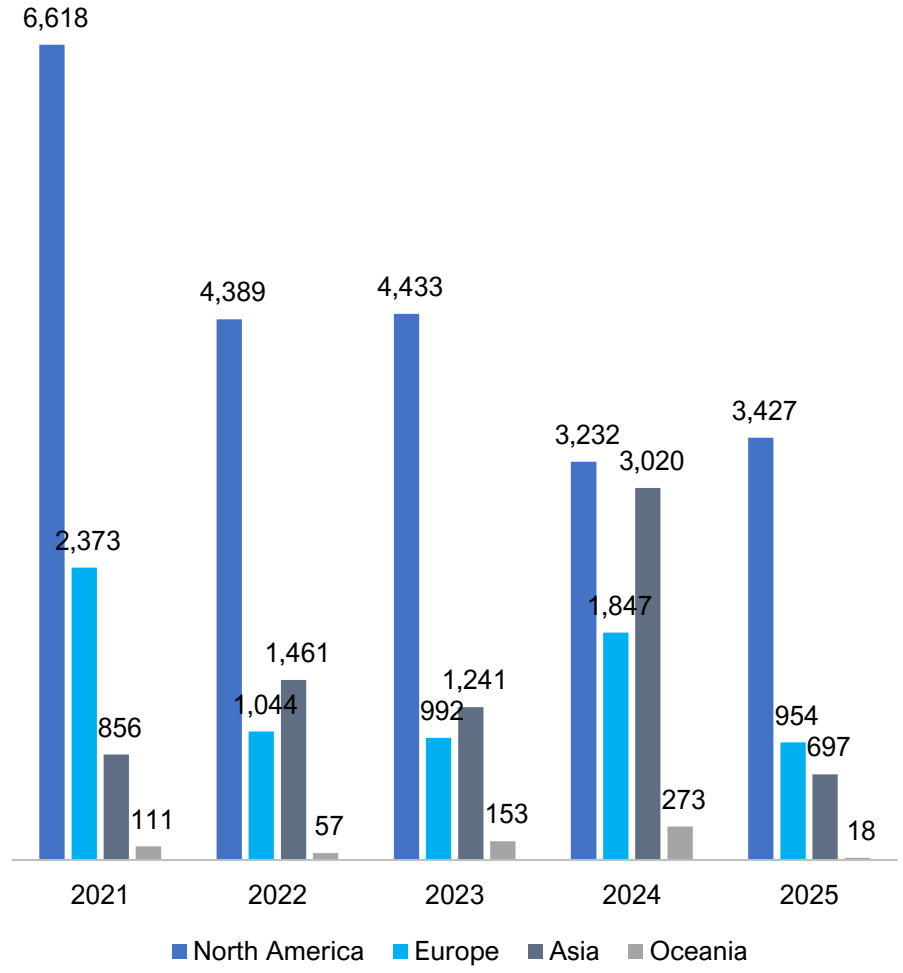
Asia

- Asia saw $697 million in space investment in H1 2025, following a record $3.02 billion in 2024.
- Analysts expect major new funding rounds from China and India later in 2025, as LEO satellite networks and national launch initiatives advance.

Oceania

- Oceania registered $18 million in space investment in H1 2025, down from $273 million in 2024, reflecting variability tied to large project cycles.

Regional Investment Breakdown – (2021-Q2'2-25)



Source: *Payload Space, Seraphim, Aranca Research*

Private Equity in the Space Economy – Key Deals

Top Global Space Sector Funding Deals – H1 2025				
Company	**Deal Size (USD Mn)**	**Round**	**Verticals**	**Lead Investor**
IMPULSE SPACE	300	Later Stage VC	Advanced Manufacturing, Space Technology	Linse Capital, DFJ Growth, Valor Equity, Founders Fund, Airbus Ventures
STOKE	260	Later Stage VC	Space Technology	Glade Brook Capital Partners, Breakthrough Energy Ventures, Industrious Ventures
True Anomaly	260	Later Stage VC	Manufacturing, Space Technology	Accel Management Company
LOFT ORBITAL	170	Later Stage VC	Space Technology	Axial Partners, Foundation Capital
K2 SPACE	110	Early-Stage VC	Manufacturing, Space Technology	Altimeter Capital Management, Lightspeed Venture Partners
AXIOM SPACE	100	PE Growth	Space Technology	Altimeter Capital Management
XONA space systems	92	Later Stage VC	IoT, Mobility Tech, Space Infrastructure	Craft Ventures
SPACEX	50	Later Stage VC	E-Commerce, Space Technology	1789 Capital, 2468 Ventures, A*, Abu Dhabi Catalyst Partners

Source: *Pitchbook, Aranca Research*

2500+
Global Clients

500+
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120+
Sectors and sub-sectors researched by our analysis

80+
Countries where we have delivered projects

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