Predictions for the space industry in 2025

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Christopher Baugh

Change was the main theme for space companies in 2024 as they adapted to a rapidly shifting environment for space infrastructure and services. The pace of change and transformation will undoubtedly continue to accelerate. Here are Analysys Mason's space team's top 10 predictions for the space industry in 2025.

A turning point for low-Earth orbit (LEO) satellites: brace for impact

We expect 2025 to be a turning point for non-geostationary orbit (NGSO) satellite companies; Amazon's Project Kuiper is expected to roll out services and Starlink will accelerate large-scale deal-making across all segments. Starlink's recent flagship deals with, and deployments on, airlines Air France, Qatar Airways and United Airlines after years of slow testing and adoption illustrate this well. Amazon Kuiper will be a catalyst for activity as it rolls out services and becomes commercially active, taking advantage of Amazon's unique strengths such as device manufacturing and cloud services. The race to secure all types of large satellite communications (satcom) customers for the long term will intensify and incumbent satellite operators may not be able to compete, which will require a new breed of solutions-focused market players.

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The number of multi-orbit deployments will surge

Leading players such as Eutelsat, Intelsat and SES are enhancing multi-orbit solutions to provide scalable and resilient satcom solutions. Multi-orbit strategies have improved at the end-user terminal level and we expect machine learning (ML) and artificial intelligence (AI) technology to improve the management of space assets and networks in 2025. Mobility, enterprise and government/military applications will increasingly adopt LEO/MEO/GEO hybrid networks. Pricing strategy and quality of service will be crucial for service penetration.

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Starlink will expand in enterprise and civil government markets

Starlink's next-generation satellites will extend its services from mobility and consumer broadbands markets to enterprise and civil government markets. Industry incumbents are already losing customers to Starlink in markets, where service-level agreements (SLAs) are not critical, particularly retail, hospitality, small and medium-sized enterprises (SMEs) and social inclusion applications. Starlink is expected to offer SLAs with its next-generation satellites in 2025. The uptime commitment will be lower than that for GEO services, but Starlink's services will be popular because the bandwidth is higher and prices are lower.

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Direct-to-device services will become widespread

The direct-to-device (D2D) ecosystem continues to develop; Apple has committed USD1.5 billion to Globalstar's next-generation constellation, AST and Starlink will continue to launch satellites and new devices such as Google's Pixel 9 will include satellite capabilities. Some D2D services have been launched commercially (for example, China Telecom is using the Tiantong satellite system and Huawei's Mate 60 Pro supports satellite connectivity), and we expect D2D messaging services ecosystem to develop significantly in 2025.

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Satellite operators and manufacturing vendors will adopt network virtualisation to deliver flexible next-generation services

It is essential for players in the space ground segment to move to software-defined technology to benefit from other innovations and developments. Major ground infrastructure vendors such as Comtech, Gilat and iDirect have each launched cloud-ready platforms that can adapt to serve multi-domain networks that use different orbits, waveforms and frequency bands. Several broadband and D2D operators are developing 5G services and adopting wider networking standards, such as MEF, TM Forum, DIFI and ETSI, to improve their ability to integrate with the telco ecosystem. They will need software-defined terminals, payloads and hubs that can be remotely updated to conform to evolving norms and regulations.

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Orbital refuelling will become a reality

Several in-orbit refuelling missions are scheduled to launch next year, after already passing significant engineering milestones. The market awaits the following demonstrations of refuelling assets in space: SpaceX's Starship-to-Starship refuelling test, the US government's Tetra-5 mission to refuel three GEO satellites and SpaceLogistics' plan to launch its Mission Robotic Vehicle. Even if there are delays and failures, these missions are likely to be successful because if they have strong support from the US government and will introduce another in-orbit service opportunity. Orbital refuelling will reshape satellite manufacturing, launch, in-orbit lifetime expectations and orbital capabilities, providing more flexibility to satellite operators and other market entrants.

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At least one Asian country will announce a constellation to respond to climate change, disaster monitoring and sustainability development goals (SDGs)

Many countries are seeking to get more involved in space activities to strengthen their sovereign space capabilities. Examples include the collaboration between UAE-based space companies Bayanat and Yahsat and Finland-based satellite manufacturer ICEYE, and Greece's purchase of wildfire monitoring satellites from Ororatech. Analysys Mason anticipates further announcements of sovereign capabilities for Earth observation (EO) solutions based on important use cases for civil and military governments in the region. Concurrently,

regional satellite operators or players are partnering with EO satellite operators-turned-manufacturers to offer solutions in new geographical regions, thereby increasing the overall utility of EO.

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SpaceX will enter the ground-segment-as-a-service (GSaaS) and data relay markets

SpaceX has entered adjacent opportunities with its in-house-built capabilities, such as optical communication terminals. Analysys Mason expects SpaceX to address data downlink through ground and data relay capabilities to support multiple missions, including EO. This expectation arises from SpaceX's historical plans to tackle larger challenges, with an ongoing push towards addressing the data downlink bottleneck as data traffic volume grows. Challenges such as regulatory delays continue to be an issue, but it is likely that SpaceX will overcome these and seize the opportunity.

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This will be the year of the drone

As drones continue to play a vital role in the war in Ukraine and geopolitical instability persists, unmanned aerial vehicles (UAVs), unmanned surface vehicles (USVs) and unmanned ground vehicles (UGVs) will become increasingly visible. Many governments will prioritise exploring options for military-related drone technology and drone manufacturers will increase the number of technology demonstration days. Ensuring sovereign security and the ability to respond to threats requires information. Expect unmanned vehicles to be an important element in national and regional strategies in 2025 and beyond.

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Multi-orbit satellite systems will transform the in-flight connectivity market

SpaceX secured substantial agreements with carriers such as Air France and United Airlines to offer LEO-only connectivity in 2024. The trend towards LEO-only systems will persist in 2025, but satellite operators are also expected to deploy multi-orbit satellite solutions. SES will finalise its acquisition of Intelsat in 2025 and is set to become a dominant force in the IFC market with its multi-orbit solution. Multi-orbit systems are expected to transform onboard internet services dramatically.

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