



NEW ZEALAND  
FOREIGN AFFAIRS & TRADE  
Manatū Aorere

NOVEMBER 2024

# Blastoff! Japan's growing space sector

MARKET INTELLIGENCE REPORT

# Summary

- Japan has set a government target to double its domestic space market from JPY 4 trillion (NZD 43 billion) in 2020 to JPY 8 trillion (NZD 87 billion) by the early 2030s. The Japanese government is setting up a number of programmes and initiatives, with the aim of expanding its space sector ecosystem to include not just its traditional, well-established big players but also more startups. While overseas entities are not directly eligible for Japan's government funding, growth in Japan's private sector presents commercial opportunities for New Zealand space sector companies to become partners with Japanese companies and form part of the wider supply chain.

# Report

## Overview of Japan's space sector

Japan's space sector has traditionally revolved around the Japan Aerospace Exploration Agency (JAXA) and a handful of primary contractors. However, Japan is now shifting the dial and trying to bring in the private sector. The main reason is the rapid development and competition in the sector worldwide, and the reality that public sector demand on its own is not enough to sustain or expand the space supply chain network.

Two keywords underpin Japan's approach: "indispensability" and "autonomy". Japan aims to develop and maintain a technological edge in key areas and also possess the ability to carry out necessary space activities on its own. Japan outlined these aims in its Basic Plan on Space Policy (adopted June 2023), which includes a target to double its domestic space market from JPY 4 trillion (NZD 43 billion) in 2020 to JPY 8 trillion (NZD 87 billion) by the early 2030s.

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## Japan's growing private sector

A growing number of startup companies are emerging in the Japanese space sector. According to SPACETIDE Foundation – a Tokyo-based non-profit organisation that hosts an annual business conference attracting space companies in Japan and beyond – there are now over 100 startup companies domestically. This number has nearly doubled since 2020.

The current space sector can be divided largely into six segments. The following are just a few such companies in each segment.

Segments	Companies
Satellite data/Space tech application	DigitalBlast, Synspective, TENCHIJIN, Yamap
Launch services	Innovative Space Carrier, Interstellar Technologies, MJOLNIR SPACEWORKS, SPACE ONE
Satellite infrastructure deployment and operation	ArkEdge Space, Axelspace, Infostellar, iQPS, Pale Blue, Space Compass, Synspective

In-orbit services	Astroscale, BULL, ElevationSpace, Space quarters, SpaceBD
Space tourism/migration	ONETABLE, Yspace
Space exploration/space mining	Space exploration/space mining

A number of private sector players are also highlighted on JAXA’s website:

[JAPAN's SPACE INDUSTRY | JAXA Business Development and Industrial Relations Department](#)

[SPACE COMPANY | JAXA Business Development and Industrial Relations Department](#)

Some recent international partnerships or deals involving Japanese space companies include:

- Cross U signed preliminary agreements with three leading organisations in the European space industry – the European Space Agency, National Centre for Space Studies (CNES), and Harwell Science and Innovation Campus – to encourage cooperation across the space sectors in EU and Japan (Nov 2024)
- Synspective signed a deal for 10 Electron launches with Rocket Lab (Jun 2024)
- Astroscale launched world’s first debris inspection spacecraft, ADRAS-J, from Rocket Lab’s Launch Complex 1 in Mahia, New Zealand
- ispace signed MOUs with mu Space towards future lunar orbiting missions (Feb 2024)

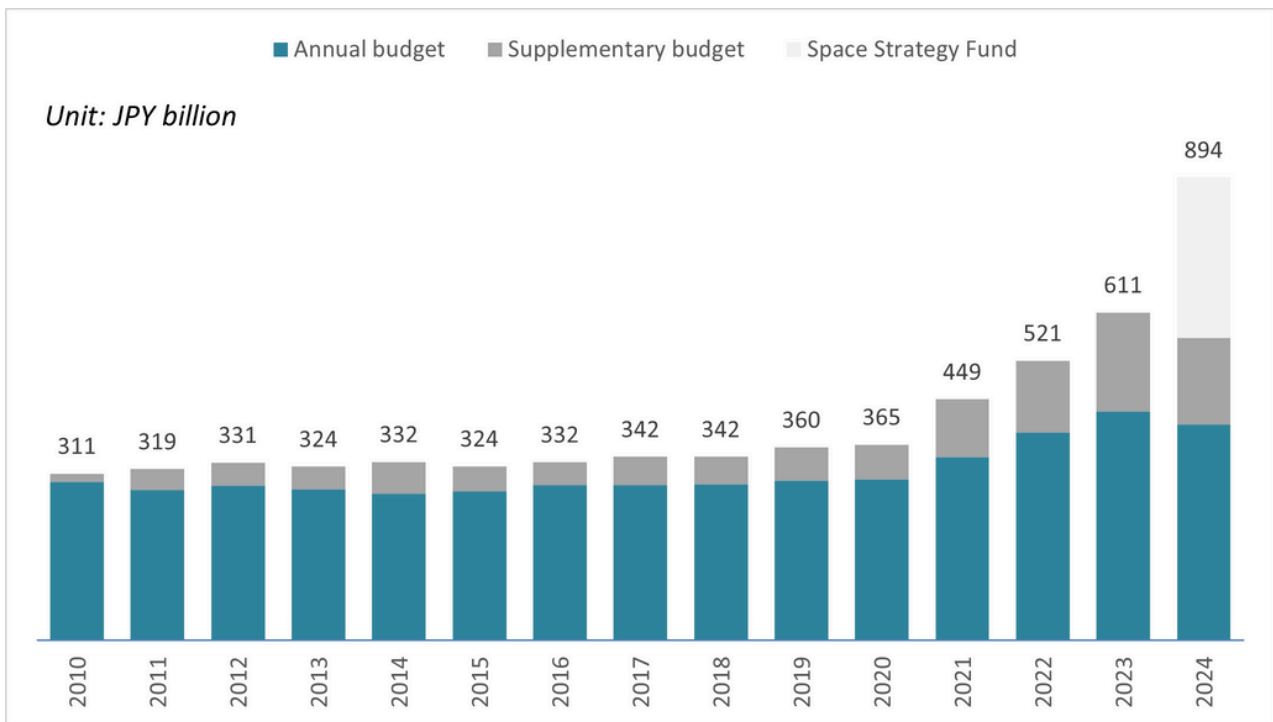
## Government budget

Japan’s government space budget has been growing in recent years. This year, with the start of the Space Strategy Fund (see below for more details), Japan is injecting significantly more funding to boost the space sector.

**Figure 1 below: Japan’s space budget since FY2010.**

**The supplementary budget approved in a given fiscal year is reflected in the chart below in the following fiscal year. (For example, the supplementary budget approved in FY2023 is reflected in FY2024 in the chart below.)**

**The Space Strategy Fund was included in the FY2023 supplementary budget.**



## Japan's space technology strategy

Japan formulated a space technology development strategy in March 2024, based on the Basic Plan on Space Policy adopted in June 2023. The strategy reaffirms the goals of strengthening Japan's technological superiority and securing autonomy of the supply chain.

The strategy focuses on four areas:

- Space transportation – Enhanced space transportation capabilities, lower space transportation prices, higher launch frequencies, and meeting diverse space transportation needs.
  - Systems technology
  - Structural technology
  - Propulsion technology
  - Other core technology
  - Transport services technology
  - Launchpad and spaceport technology
- Satellites etc. – Disaster prevention and mitigation, solving global issues including national land resilience and climate change, creating innovation in the private sector, achieving the UN Sustainable Development Goals, realising Society 5.0.
  - Communications
  - Satellite measurement system
  - Remote sensing
  - Orbital services
  - Satellite infrastructure technology

- Space exploration – To create common human knowledge on the origins of the universe and the possibility of life on other planets, to expand the domain of human activities into deep space beyond the Moon, and to promote industry in lunar exploration and low Earth orbit activities.
    - Astrophysics
    - Solar system science/exploration
    - Lunar exploration/development etc.
    - Low earth orbit/international space exploration
  - Cross-area/sector technologies – Continuous development of technologies common to the above-mentioned satellite, space science and exploration and space transportation sectors is essential to ensure supply chain autonomy and strengthen international competitiveness.
    - Hardware technology to support advanced functional performance and flexibility (e.g. digital devices)
    - Core mechanical technology to reduce size and weight while increasing mission sophistication (e.g. 3D printing)
    - Core software technology to support increasing mission sophistication and flexibility (e.g. AI, machine learning)
    - Transformation of development and manufacturing processes and supply chains that contribute to faster development cycles and mass production
    - High-precision co-operative operation technology for multiple spacecrafts
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## Ongoing government-led initiatives

Below are some ongoing initiatives led by the Japanese government. With the exception of S-Booster (see below), overseas entities are not directly eligible for Japan's government funding. However, these initiatives may offer opportunities for New Zealand space sector companies to partner with Japanese companies and form part of the wider supply chain. Opportunities may potentially include provision of hardware and components, partnerships in research and development, and launch services. Long term partnerships and integration into supply chains are important ways in which New Zealand companies can form connections into the Japanese market and develop a reputation as a reliable partner.

### **Space Strategy Fund**

Last year, Japan announced the establishment of a Space Strategy Fund and plans to inject JPY 1 trillion (NZD 10.9 billion) across 10 years into the space sector. The funding is expected to be dispensed more in the initial years and gradually decrease in scale over time. JAXA, which has traditionally been an R&D institution and implementation agency, is taking on a funding agency role for the first time.

The fund has three goals:

- Double the domestic space market from 4 trillion yen in 2020 to 8 trillion by the early 2030s
- Contribute to finding solutions for global, societal issues using space
- Cultivate knowledge of space and strengthen core technological capabilities

The three focus areas correspond with those outlined in the Space Technology Strategy:

- Space transportation
- Satellites etc.
- Space exploration

The Ministry of Education, Culture, Sports, Science and Technology (MEXT), Ministry of Economy, Trade and Industry (METI), and Ministry of Internal Affairs and Communications (MIC) have each identified thematic areas and JAXA, as the funding agency, made calls for the first round of proposals in July and August. Announcements on successful proposals have just begun. Private companies, universities and other organisations that have R&D and legal corporate status in Japan are eligible for funding.

### **Small/Startup Business Innovation Research (SBIR) Programme**

Modelled after the SBIR programme in the US, Japan established its own SBIR programme in 1999. However, the programme failed to produce innovation or so-called “unicorn companies” like it did in the US, and Japan revamped the programme in 2021.

Several themes under this support scheme target the space sector, including:

- Development and demonstration of launch vehicles in the private sector (MEXT)
- Development and demonstration of technology necessary for reducing space debris (MEXT)
- Development and demonstration of a lunar lander (METI)
- Demonstration of increased sophistication of satellite remote sensing business (METI)

On private launch vehicles, MEXT set up a three-stage funding competition. In September 2023, four companies were selected for funding in the first round. In September this year, MEXT announced the results of stage two, and among the four selected in the first round, Interstellar Technologies, Innovative Space Carrier, and SPACE ONE have proceeded to the final round.

### **Tellus**

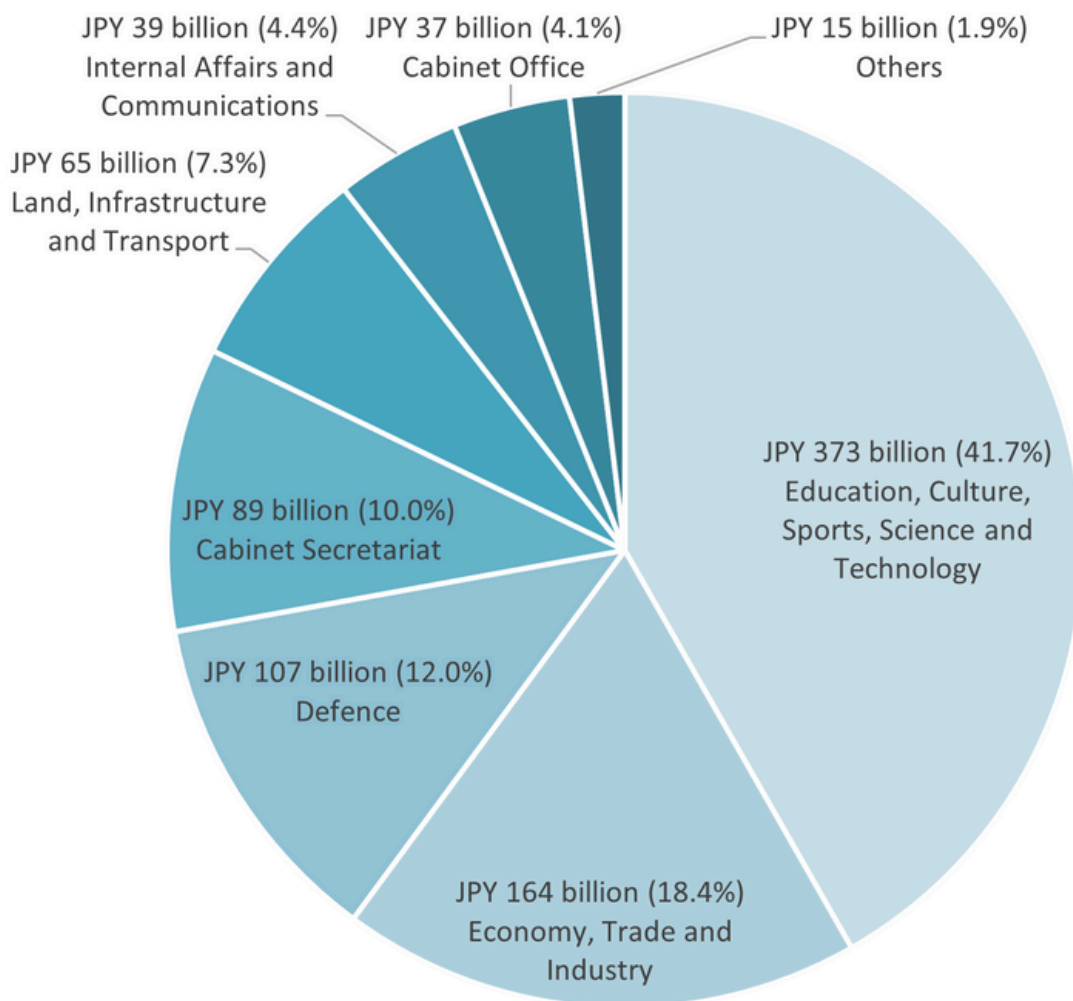
Tellus (pronounced Te loose) is a satellite data platform designed to promote the open and free use of government satellite data. Developed by METI, it is now operated by Tellus Inc.

For more, please visit: [Top Page](#) | [Tellus \(tellusxdp.com\)](https://tellusxdp.com)

## S-Booster

[S-Booster](#) is an annual spaced-based business idea contest hosted by the Cabinet Office. Winners receive support to commercialise their ideas, including receiving advice from experts, business matching opportunities, and prize money to fund activities in the initial period. Initially launched as a domestic contest in 2017, the Cabinet Office has invited overseas entities in the Asia-Oceania region to take part since 2019.

## Appendices



**Figure 2. Breakdown of FY2024 space budget by government agency**

For a further breakdown of projects/programmes by ministry, see table below. (Note: The table below covers items/projects that have been allocated over JPY 10 billion.)



Government agency	Project/ programme	Funding amount (JPY billion)
Ministry of Education, Culture, Sports, Science and Technology (MEXT)	<ul style="list-style-type: none"> <li>• Space Strategy Fund</li> <li>• Development and sophistication of Japan's flagship <a href="#">H3 launch vehicle</a></li> <li>• <a href="#">R&amp;D towards the Artemis programme</a></li> <li>• <a href="#">GOSAT-GW (greenhouse gas emissions, water cycle observation)</a></li> <li>• <a href="#">GOSAT-GW (greenhouse gas emissions, water cycle observation)</a></li> </ul>	<ul style="list-style-type: none"> <li>• 150</li> <li>• 26</li> <li>• 26</li> <li>• 11</li> <li>• 11</li> </ul>
		<b>Total: 373</b>
Ministry of Economy, Trade and Industry (METI)	<ul style="list-style-type: none"> <li>• Space Strategy Fund</li> <li>• K programme and SBIR - Phase 3</li> </ul>	<ul style="list-style-type: none"> <li>• 126</li> <li>• 19</li> </ul>
		<b>Total: 164</b>
Ministry of Defence (MOD)	<ul style="list-style-type: none"> <li>• Acquiring data for image processing</li> <li>• Servicing Space Domain Awareness (SDA) satellites</li> </ul>	<ul style="list-style-type: none"> <li>• 23</li> <li>• 12</li> </ul>
		<b>Total: 107</b>
Cabinet Secretariat	<ul style="list-style-type: none"> <li>• Development and operation of <a href="#">information-gathering satellites</a></li> </ul>	<ul style="list-style-type: none"> <li>• 89</li> </ul>
		<b>Total: 89</b>
Ministry of Land, Infrastructure, Transport and Tourism (MLIT)	<ul style="list-style-type: none"> <li>• Development of the next generation geostationary meteorological satellite</li> </ul>	<ul style="list-style-type: none"> <li>• 21</li> </ul>
		<b>Total: 65</b>

Government agency (continued)	Project/ programme (continued)	Funding amount (JPY billion) (continued)
Ministry of Internal Affairs and Communication (MIC)	<ul style="list-style-type: none"> <li>• Space Strategy Fund</li> <li>• Development of 10 Gbps-class high-speed optical transmission technology</li> </ul>	<ul style="list-style-type: none"> <li>• 24</li> <li>• &lt;30</li> </ul>
		<b>Total: 65</b>
Cabinet Office	<ul style="list-style-type: none"> <li>• Development, servicing, and operation of <a href="#">Quasi Zenith Satellite System</a></li> <li>• Promotion of space development and utilisation</li> </ul>	<ul style="list-style-type: none"> <li>• 24</li> <li>• 12</li> </ul>
		<b>Total: 37</b>

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