Overview of the Space Strategy Fund (SSF)

Space Strategy Fund Department
Japan Aerospace Exploration Agency
(JAXA)

Dec 2026

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- This presentation material is available at JAXA Space Strategy Fund website.

or

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https://fund.jaxa.jp/content/uploads/Overview_of_The_SpaceStrategy_Fund.pdf

The Space Strategy Fund (SSF)

SPACE STRATEGY FUND

Japanese Government

CAO | METI | MEXT | MIC

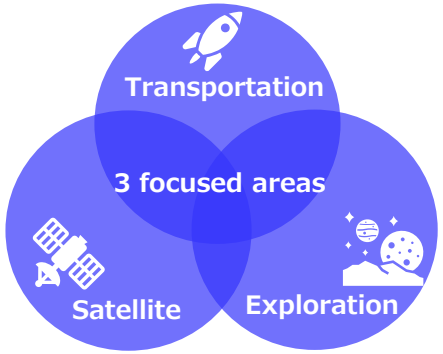
Fund Creation

Funding Agency

JAXA

Grant Allocation/ Entrustment (Not equity)

Private companies, Startups, Universities, Research Institutions



- Commercialization
- Solving Social Issues
- Frontier Technology Development

Aiming at securing 1 trillion yen (approx. 7.0 billion $) in total up to 10 years

	1st Phase (FY2024-)	2nd Phase (FY2025-)	3rd Phase (FY2026-)
Fund Size	**300 B JPY**	**300 B JPY**	**200 B JPY**
Number of Themes	22 themes	24 themes	19 themes

3 Goals

Expanding the space market
Double the size of Japanese domestic space market 4T JPY→ 8T JPY (approx. 60B USD) in the early 2030s

Solving global and social issues
Contribute to solve global and social issues by utilizing space

Pioneering frontier
Deeper exploration of knowledge in the universe, and stronger basic and fundamental technologies

Management Structure of the Space Strategy Fund at JAXA

SPACE STRATEGY FUND

- In managing the Space Strategic Fund, **JAXA has cooperation of leading experts**, both within and outside the agency.

(As of January 2026)



President



PD (Program Director)

SPACETIDE Foundation
President & CEO
Masayasu Ishida

- ✓ The Steering Board, chaired by the PD, manages the program as a whole
- ✓ Comprehensive coordination of overall program, including overall policy and cross-domain matters
- ✓ Management of the fund program as a whole to achieve its goals and generate outcome



Vice President
(Okuno)



PO (Program Officer)

External experts
including university professors

- ✓ A Program Officer (PO) is assigned to each domain, (transportation, satellites, science / exploration, etc.)
- ✓ The Chair operates review committees composed of external experts serving as POs
- ✓ Final decisions are made on project selection and stage-gate evaluations for each technology theme

Review Committee for Each Theme



Space Strategy Fund Department

Director
(Naiki)

- ● Public calls, screening, selection and evaluation
- ● Contracting / grant awards / fairness assurance
- ● Progress monitoring, technical advice and support
- ● Business development support, research, and information dissemination

Coordination / Cooperation

Other Directorates / Departments / Centers

- • Space transportation • Satellites • Human spaceflight & exploration • R&D
- • Space science • Safety & reliability technologies • Satellite tracking
- • International affairs, etc.



GP (General Producer)



P (Producer)



FE (Facilitation Engineer)

SSF Direction of Technology Development

SPACE STRATEGY FUND

Space Transportation

- ✓ Establish low-cost space transportation systems that can accommodate the diversifying launching needs for satellites manufactured both in Japan and overseas.
  KPI: Improve Japan's rocket launching capabilities by securing approx. 30 flagship and private rocket launches annually by the first half of 2030s.
- ✓ Establish industrial infrastructure to achieve the above target and ensure its independence and autonomy, while acquiring the technology required to realize new space transportation systems and enhance Japan's overall international competitiveness.

Satellite

- ✓ Realize autonomous satellite systems that will increase international competitiveness of Japanese private companies (including startups) providing small to large-scale satellite services (communications, observation, etc.) and on-orbit servicing.
  KPI: Establish more than five satellite systems through domestic private companies by early 2030s.
- ✓ Establish the domestic industrial infrastructure to achieve the above target and ensure its independence and autonomy, while acquiring innovative satellite infrastructure technologies to improve Japan's overall international competitiveness.
- ✓ Expand space-related markets through the use of satellite systems, including those mentioned above.
  KPI: By the early 2030s, complete implementation of more than 30 major communications and satellite data utilization services by domestic private companies, etc. in Japan and overseas.

Exploration

- ✓ Ensure Japan's international presence in space explorations to the Moon, Mars and beyond, and initiatives to expand realms of human activity.
  KPI: By the early 2030s, ensure that domestic private companies, universities, etc. will participate in more than 10 new missions and projects to explore the Moon, Mars and beyond.
- ✓ Create and expand post-ISS businesses initiated by Japanese private companies from 2030 onwards.
  KPI: By the early 2030s, create more than 10 new business projects by Japanese companies utilizing low Earth orbit.
- ✓ In addition, leverage these opportunities to accomplish exceptional scientific results in fields such as solar system science and astrophysics, and contribute to large-scale international projects.

SSF Basic Policy and Implementation Policy

SPACE STRATEGY FUND

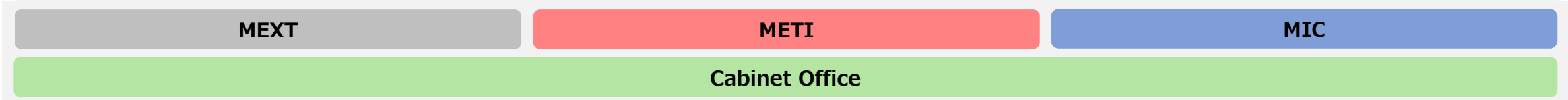
- The Ministries set the overall system design of the entire project as "Basic Policy" and specific details of the goals and content of each technology development theme as "Implementation Policy."
- In setting the technology development themes, reference is made to the technology items identified in the Space Technology Strategy.
- Themes that can be more effectively promoted by private companies and universities, rather than by JAXA itself, will be set as technology development themes.

Basic Policy

- Objectives and overview
- Goals, direction of technological development
- Setting of technological development themes and concept of goals
- Method of implementing technological development
- Technology development management
- Economic security considerations

Implementation Policy

- Technology development theme name
- Theme goal
- Technology development implementation content
- Technology development implementation structure
- Support method
- Evaluation and review points
- Technology development management



Overview of SSF Phase 1-3

SPACE STRATEGY FUND

	1st Phase （FY2024-）	2nd Phase （FY2025-）	3rd Phase （FY2026-）
Size	**300 B JPY**	**300 B JPY**	**200 B JPY**
Transportation Satellites etc. Exploration etc. Cross-Cutting Areas	Approx. 36 B JPY Approx. 165 B JPY Approx. 74 B JPY Approx. 16 B JPY	Approx. 63 B JPY Approx. 134 B JPY Approx. 50 B JPY Approx. 44 B JPY	Approx. 48 B JPY Approx. 96 B JPY Approx. 32 B JPY Approx. 24 B JPY
Number of Themes	**22 themes**	**24 themes**	**19 themes**
Number of Funded Projects	**55 projects**	**112 projects**	**Approx. 80 projects (Scheduled)**
Approach	Themes are formulated for technology development projects for which plans and funding needs have already been clearly identified and which should be initiated promptly.	New themes are formulated that are expected to particularly contribute to expanding involvement in the space sector and broadening its base.	Themes are formulated to promote the acceleration of demonstration, social implementation, and commercialization of space technologies by leveraging collaboration and integration with technologies from other fields.
Key Features	・Accelerating Private-Sector Initiatives ・Accelerating the Transfer of Technologies to the Private Sector Across Various Fields ・Enhancing Japan’s “Strength” technologies	・Creation of New Services ・Promotion of Entry from Non-Space Sectors and Expansion of the Industry Base ・Acceleration of Initiatives Toward High Frequency Launches	・Demonstration in the Space Domain through Collaboration and Integration with Technologies from Other Fields ・Acceleration of Demonstration through the Integration of Space Technologies ・Acceleration of Transportation Technology Demonstration and Support for Commercialization

SPACE STRATEGY FUND

Summary of 1st Phase (FY2024-)

and 2nd Phase (FY2025-)



Selection Results – 1st Phase – Transportation

SPACE STRATEGY FUND

Domain	Technology Development Themes		Representative Organization	selection date
Transportation	【MEXT】Innovative Technology for Light Weight - High Performance and Lower Cost of Space Transportation Systems**(Up to Approx. 12 B JPY)**	A	MARUHACHI	January 30, 2025
		B-1)	Nikon	October 25, 2024
		B-2)	SHIMIZU CORPORATION	October 25, 2024
			Mitsubishi Heavy Industries	October 25, 2024
	【MEXT】Ground Systems for Future Transportation **(Up to Approx. 15.5 B JPY)**	Recovery	Nippon Yusen Kabushiki Kaisha	December 20, 2024
		Ground	SPACE COTAN	January 17, 2024
	【METI】Development of Integrated Navigation System for Space Transportation**(Up to Approx. 3.5 B JPY)**		Mitsubishi Precision	November 15, 2024
	【METI】Mass Production Technology Development for Main Materials of Solid Rocket Motors**(Up to Approx. 4.8 B JPY)**		IHI Aerospace	January 31, 2025

Selection Results – 1st Phase – Satellites

SPACE STRATEGY FUND

Domain	Technology Development Themes		Representative Organization	selection date
Satellites	【MEXT】 High Accuracy Satellite Formation Flight Technology**(Up to Approx. 4.5 B JPY)**		Interstellar Technologies	December 20, 2024
			The University of Tokyo	December 20, 2024
			Nagoya University	December 20, 2024
	【METI】 Accelerating Commercial Satellite Constellation Deployment**(Up to Approx. 95 B JPY)**		ArkEdge Space	November 29, 2024
			iQPS	November 29, 2024
			Synspective	November 29, 2024
			NEC	November 29, 2024
	【METI】 Development/Verification of Parts/Components for Establishing Satellites Supply Chain **(Up to Approx. 18 B JPY)**	(A)	WEL Research	February 28, 2025
			NEC Space Technologies	
			NU-Rei	
			Composite Tailors	
			SHARP ENERGY SOLUTIONS	
			GS Yuasa Technology	
			Mitsubishi Electric	
			Idemitsu Kosan	March 13, 2026
			Taiyo Wire Cloth	
		(B)	Mitsubishi Electric	February 28, 2025
			NanoBridge Semiconductor	March 13, 2026
		(C)	INDUSTRIAL-X	February 28, 2025
			ASTEC	
	【MEXT】 Optical Observation Satellite System with High Resolution/High Frequency**(Up to Approx. 28 B JPY)**		Marble Visions	November 29, 2024
	【MEXT】 Innovative Satellite LiDAR Technology Utilizing High Power Lasers**(Up to Approx. 2.5 B JPY)**		Kyoto University	November 29, 2024
	【METI】 Feasibility Study of Overseas Demonstration of Satellite Data Utilization System. **(Up to Approx. 1 B JPY)**	(A)	UMITRON	February 7, 2025
			Ocean Eyes	
			OCEAN SOLUTION TECHNOLOGY	
			Space Tech Accelerator	
			Solafune	
			PACIFIC CONSULTANTS	
		(B)	Japan Space Forum	
	【MIC】 Development/Verification of Satellite Communication Technology with Quantum Cryptography **(Up to Approx. 14.5 B JPY)**		National Institute of Information and Communications Technology	December 20, 2024
	【MIC】 Supporting Implementation of Communication Technology (Optical Router) Required for Satellite Constellation**(Up to Approx. 1.9 B JPY)**		NEC	November 22, 2024

Selection Results - 1st Phase - Exploration/Cross-cutting

SPACE STRATEGY FUND

Domain	Technology Development Themes		Representative Organization	Selection date
Exploration	【MEXT】Lunar Positioning System Technology**(Up to Approx. 5 B JPY)**		ArkEdge Space	November 22, 2024
	【MIC】Development/Verification of Technology for Lunar Water Resource Exploration（Sensing Technology）**(Up to Approx. 6.4 B JPY)**		Institute of Science Tokyo	February 14, 2025
	【MIC】Development/Verification of Lunar-Earth Communication System（FS）**(Up to Approx. 0.5 B JPY)**		KDDI	November 15, 2024
			Fukui University of Technology	November 15, 2024
	【MEXT】Technology for LEO Universal Experiment System **(Up to Approx. 2 B JPY)**		Space BD	November 22, 2024
	【MEXT】Technology for LEO Autonomous Flying Module System **(Up to Approx. 10 B JPY)**		Japan LEO Shachu	November 15, 2024
	【MEXT】Technologies Related to Internationally Competitive, Self-Reliant, and Flexible Material Supply Systems**(Up to Approx. 15.5 B JPY)**	A)	Japan LEO Shachu	December 13, 2024
		B)	IHI Aerospace	December 13, 2024
	【MEXT】Regenerative Fuel Cell Systems**(Up to Approx. 23 B JPY)**		TOYOTA MOTOR	November 29, 2024
	【MEXT】Fundamental Low Cost Technology for Atmospheric Entry/Aerodynamic Damping**(Up to Approx. 10 B JPY)**		Next-generation Space system Technology Research Association	January 10, 2025
	【MEXT】Fundamental Technology for Semi-Permanent Power Supply Systems **(Up to Approx. 1.5 B JPY)**		Japan Atomic Energy Agency	January 10, 2025
Cross Cutting	【MEXT】SX Research and Development Site**(Up to Approx. 11 B JPY)**		National Astronomical Observatory of Japan	January 31, 2025
			The University of Tokyo	
			The University of Tokyo	
			Nagoya University	
			Ritsumeikan Trust	

Selection Results – 2nd Phase – Transportation

SPACE STRATEGY FUND

Domain	Technology Development Themes		Representative Organization	Selection date
Transportation	【MEXT】Core Technologies for Ensuring Safety in Human Space Transportation Systems A. Development of Foundational Technologies to Realize Life Support and Environmental Control Functions, as well as Pressurization Functions B. Verification of Foundational Technologies to Realize “Anomaly Detection Functions” and “Abort / Escape Functions” **(Up to Approx. 10 B JPY)**	A	Iwaya Giken	February 20, 2026
			Space System Development	
		B	Innovative Space Carrier	
			Mitsubishi Heavy Industries	
	【MEXT】Core System Technologies Toward the Realization of Smart Launch Site **(Up to Approx. 8.5 B JPY)**		N/A	March 23, 2026
	【METI】Development of Rocket Parts and Components to Enable High-Frequency Launch Operations**(Up to Approx. 19.5 B JPY)**		NEC Space Technologies Eagle Industry Space BD Air Water Symphonia Technology MJOLNIR SPACEWORKS SUIHO SPACE INNOVATIONS	November 21, 2025
	【METI】Feasibility Study on the Design and Deployment of General-Purpose Facilities to Enable High-Frequency Launches at Spaceports**(Up to Approx. 0.5 B JPY)**		IHI Aerospace	November 21, 2025
	【METI】Transformation of Rocket Manufacturing Processes to Enable High-Frequency Launches**(Up to Approx. 24.5 B JPY)**		UACJ Toray Carbon Magic Tokuda Kogyo Fuji Seiko Hikari Seisakusho Space One Hokuto Akahoshi Kogyo IHI Corporation	December 19, 2025

Selection Results – 2nd Phase – Satellites

SPACE STRATEGY FUND

Domain	Technology Development Themes		Representative Organization	Selection date
Satellites	【MEXT】Technologies for Realizing Flexible Utilization of Space A. Development of On-Orbit Manufacturing and Assembly Technologies B. Development of On-Orbit Object Removal Technologies C. Development of Space Situational Awareness Technologies **(Up to Approx. 16.5 B JPY)**	(A)	Mitsubishi Electric	November 28, 2025
			Toray Industries	
		(B)	Power Laser Technology	
		(C)	Star Signal Solutions	
			IHI Corporation	
			Power Laser Technology	
	【MEXT】Advanced Technology to Accelerate the Use of Earth Observation Data **(Up to Approx. 4 B JPY)**		Preferred Networks Tellus Space Data	December 19, 2025
	【MEXT】Technologies for Realizing Flexible Mobility in Space A. Development of Inter-Orbit Transportation Vehicles B. Development of Core Technologies for On-Orbit Refueling C. Research and Development of Space Logistics **(Up to Approx. 30 B JPY)**	(A)	NEC Pale Blue Mitsubishi Electric	January 23, 2026
		(B)	Astroscale	
		(C)	Yokohama National University	
	【MEXT】Technologies to Enhance Observation Capabilities for Next-Generation Earth Observation Satellites A. Development of New Markets B. Expansion of the Scale of Market Acquisition in Existing Markets **(Up to Approx. 10 B JPY)**	(A)	Axelspace	March 23, 2026
		(B)	Synspective	
	【METI】Support for Demonstration of Innovative Satellite Mission Technologies **(Up to Approx. 12 B JPY)**	(C)	Sarmony	March 23, 2026

Selection Results – 2nd Phase – Satellites

SPACE STRATEGY FUND

Domain	Technology Development Themes		Representative Organization	Selection date
Satellites	【METI】 Acceleration of Implementation of Satellite Data Utilization Systems A. Development and Demonstration of Satellite Data Utilization Systems B. Overseas Development, Demonstration, and Social Implementation Infrastructure for Satellite Data Utilization Systems C. Development of Development and Demonstration Environments for Satellite Data Utilization Systems **(Up to Approx. 17.6 B JPY)**	(A)	Sumitomo Forestry Tokio Marine Resilience Archeda Kokusai Kogyo Green Carbon Wesco Remote Sensing Technology Center of Japan Space Tech Accelerator Oki Electric Industry LocationMind	March 13, 2026
		(B)	Japan Space Forum Advanced Satellite Systems Technology Center Cross U Mitsubishi Research Institute Nomura Research Institute Deloitte Tohmatsu Space & Security	
		(C)	Remote Sensing Technology Center of Japan	
	【MIC】 Feasibility Study for Satellite Bus and Terminal for Optical Communications **(Up to Approx. 0.4B JPY)**		NEC Mitsubishi Electric National Institute of Information and Communications Technology	October 10, 2025
	【MIC】 Research, Development, and Demonstration toward the Realization of Data Relay Services Utilizing Satellite Optical Communications **(Up to Approx. 23.5 B JPY)**		Space Compass	November 21, 2025
	【MIC】 Development and Demonstration of Technologies for Internationally Competitive Communications Payloads**(Up to Approx. 5.8 B JPY)**		Mitsubishi Electric	December 19, 2025
	【MIC】 Development of Inter-Terminal Interconnection Technologies and Related Technologies to Promote the Introduction and Expanded Use of Satellite Optical Communications**(Up to Approx. 3 B JPY)**		Warpspace	December 19, 2025
	【MIC】 Development and Demonstration of Frequency Sharing Technologies and Related Technologies toward the Realization of Integrated Operations between Satellite Communications and Terrestrial Networks**(Up to Approx. 11 B JPY)**		Rakuten Mobile	January 16, 2026

Selection Results – 2nd Phase – Exploration

SPACE STRATEGY FUND

Domain	Technology Development Themes	Representative Organization	Selection date
Exploration	【MEXT】Elemental Technologies for Lunar Infrastructure Development **(Up to Approx. 8 B JPY)**	Tohoku University Ritsumeikan University The University of Tokyo	October 10, 2025
	【MEXT】Technologies for High-Frequency Cargo Recovery Systems **(Up to Approx. 2.5 B JPY)**	ElevationSpace	November 7, 2025
	【MEXT】Technologies to Enhance the Efficiency of External Use in Space **(Up to Approx. 6.5 B JPY)**	Japan LEO Shachu	November 28, 2025
	【MEXT】High-Precision Landing Technologies in Lunar Polar Regions **(Up to Approx. 20 B JPY)**	ispace	January 16, 2026
	【MEXT】Technologies for the Construction of On-Orbit Data Centers **(Up to Approx. 13.5 B JPY)**	SpaceBlast	January 16, 2026

Selection Results – 2nd Phase – Cross-cutting

SPACE STRATEGY FUND

Domain	Technology Development Themes		Representative Organization	Selection date
Cross Cutting	【MEXT】 Space Diversion and New Space Industry Seeds Creation Site “SX-CRANE” **(Up to Approx. 11 B JPY)**		Institute of Science Tokyo (Project Title: Development Hub for Environmental Sensors and Small Payloads for the Era of Human Missions to Mars) Tokyo University of Marine Science and Technology Yamagata University Waseda University Institute of Science Tokyo (Project Title: Development Hub for Integrated Living Spaces and Medical Care in Space)	February 6, 2026
	【METI】 Solutions for Spacecraft Environmental Testing Challenges A. Addressing Challenges in Various Environmental Tests (Excluding Radiation Testing) B. Addressing Challenges in Radiation Testing I. Development of Facilities to Address Challenges in Radiation Testing II. Development of Systems and Other Measures to Address Challenges in Radiation Testing (Excluding Facilities) **(Up to Approx. 23 B JPY)**	(A)	IMV	February 13, 2026
		(B) I.	High Energy Accelerator Research Organization Japan Atomic Energy Agency (Project Title: Development of a Spacecraft Radiation Testing Facility Using the Proton Beam of the J-PARC Linac) Japan Atomic Energy Agency (Project Title: Development of Radiation Testing Facilities at the JAEA Tokai Tandem Accelerator) RIKEN National Institutes for Quantum Science and Technology	
		(B) II.	SEESE Corporation	

Selection Results – 2nd Phase – Cross-cutting

SPACE STRATEGY FUND

Domain	Technology Development Themes	Representative Organization	Selection date
Cross Cutting	【MEXT】 SX-Advanced Research Kick-starter "SX-ARK" Thermal and Devices Domain Motion and Control Domain **(Up to Approx. 10 B JPY)**	**【Thermal and Devices Domain】** Nagoya University Nagoya Institute of Technology Kioxia Hokkaido University Daikin Industries, Technology and Innovation Center EneCoat Technologies Ehime University Iwate University Chemitox Ookuma Diamond Device National Institute of Advanced Industrial Science and Technology Osaka University **【Motion and Control Domain】** Patched Conics Shimane University SteraVision National Institute of Advanced Industrial Science and Technology Nagoya University The University of Tokyo Yokohama National University Fukoku Sanyo Chemical Industries Tokyo University of Science National Astronomical Observatory of Japan, National Institutes of Natural Sciences NEC Space Technologies Kyushu University Kobe University Tohoku University Nippon Kayaku Kyoto University Hatta–Yamamoto Space Propulsion Systems	March 13, 2026

1 Page Overview of the Projects (PR-sheet)

- **1 page overview of each project (PR sheet) is available at the JAXA SSF website.**

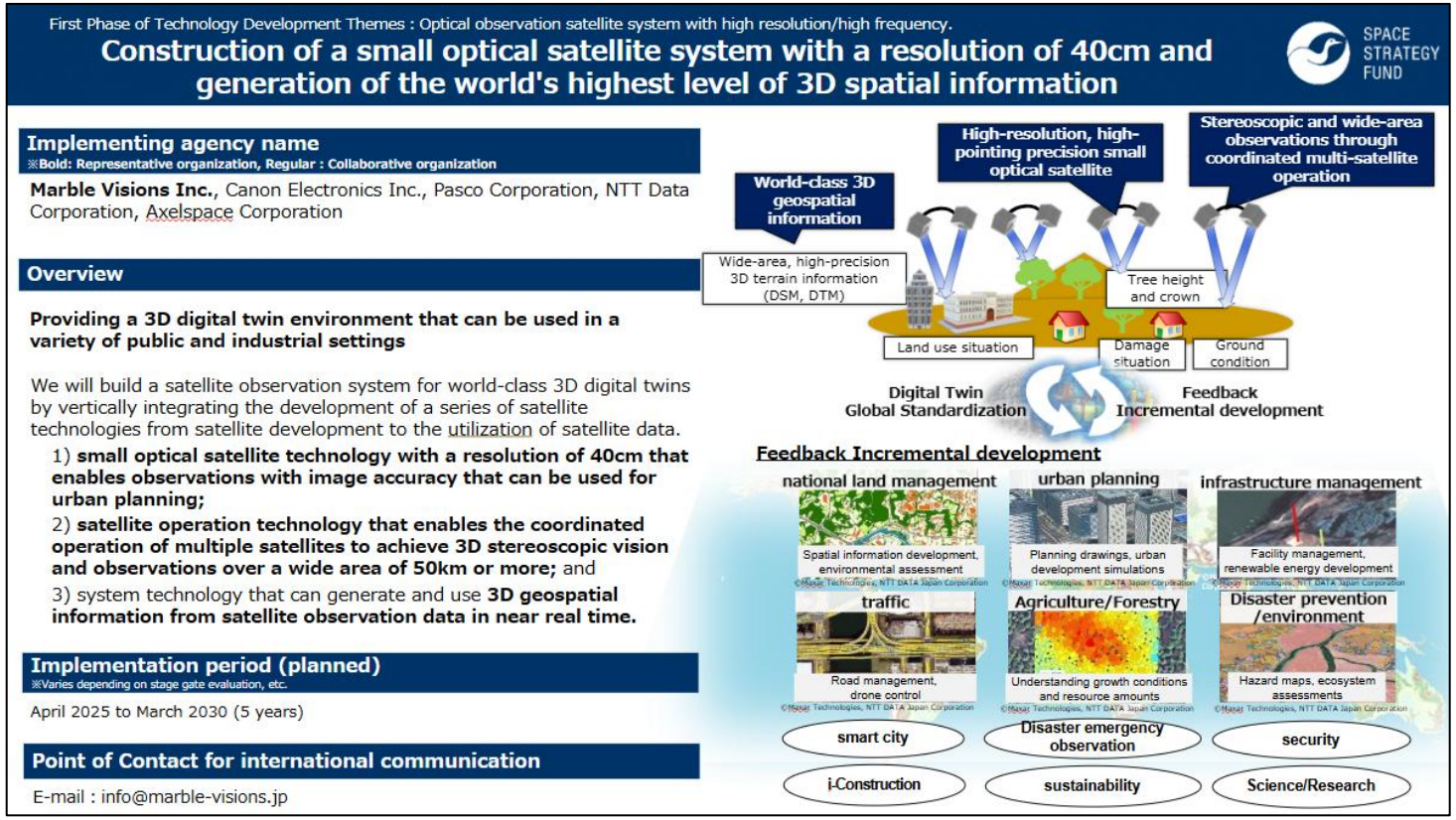
SSF Web Site: Click here





These are the PR Sheet files

PR sheet (example)

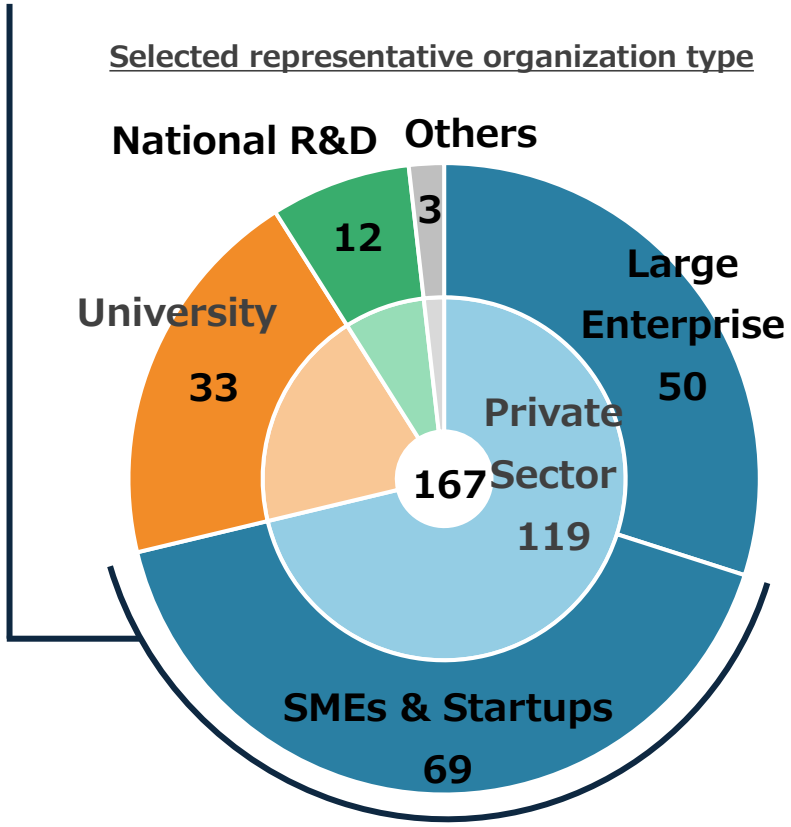


The Overall Trend of the Selected Organizations

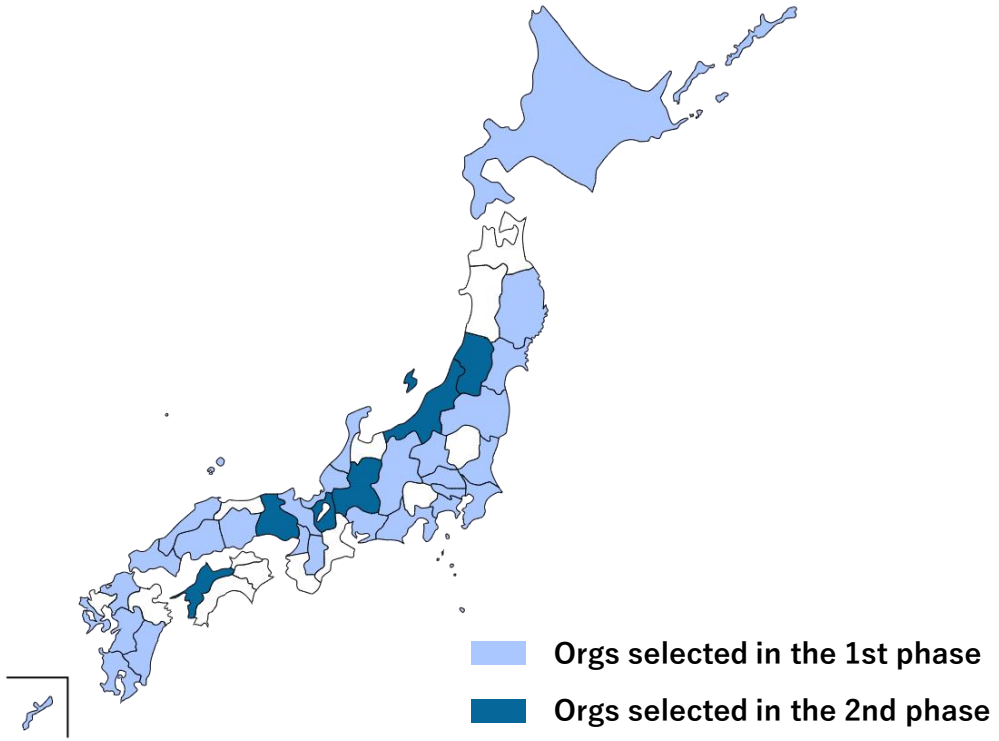
SPACE STRATEGY FUND

- **The selected organizations were from various sectors across the country.**

■ More than 40% of representative organizations were SMEs & Startups



■ The location of the selected organizations covers 72% of the country (34/47 prefectures)



Key progress and achievements of SSF 1st phase Projects

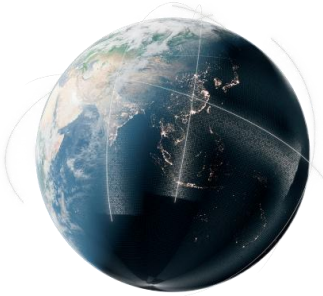
SPACE STRATEGY FUND

- Concrete progress and achievements including the following are emerging in each area.

Satellite

- **Synspective and iQPS were both selected by the EO satellite constellation project of Ministry of Defense in December 2025**. Satellites developed and manufactured under this subsidized project are scheduled to enter service in stages. Between May and September 2026, **Synspective successfully launched five satellites** supported by SSF, while **iQPS successfully launched one satellite** in August 2026.

- **Mitsubishi Electric and PXP** have achieved **world-class conversion efficiency** (as of May 2025) **of perovskite solar cells** using materials expected to offer high durability in space environments. **They also successfully produced prototype CIGS cells**.



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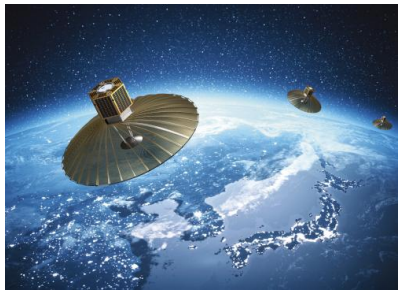
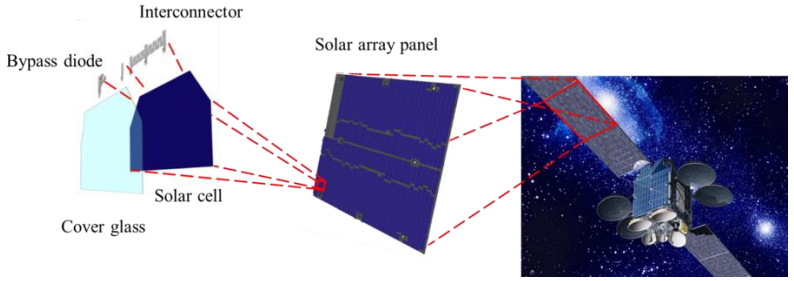


©iQPS



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Key progress and achievements of SSF 1st phase Projects

Satellite (Contd.)

- **Pacific Consultants is conducting a series of analyses using a prototype platform—including satellite image acquisition and analysis, damage assessment, identification of flood control facilities, flood flow analysis, and identification of damage causes.** Development is underway, with a target completion date of December 2026. As part of their exit strategy, the company is considering refining the tool based on an analysis of customer needs and establishing an operational framework. They are also conducting sales and public relations activities aimed at securing overseas partners.



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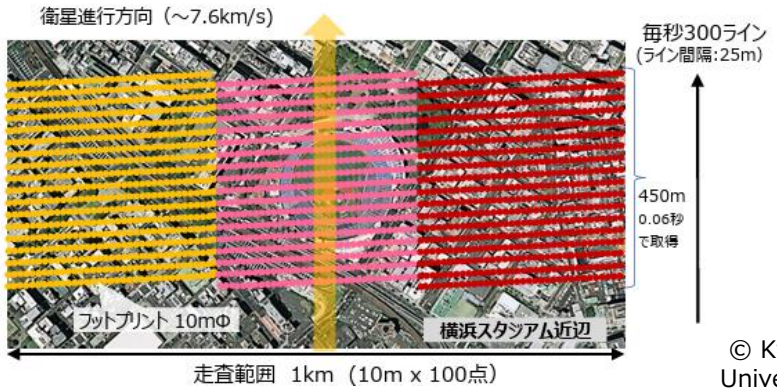
- **Kyoto University has achieved a power conversion efficiency of approximately 30% with its "Photonic-Crystal Surface-Emitting Laser (PCSEL)"—a compact semiconductor laser light source designed for satellite-borne altimeter lidar systems.** Furthermore, the university has completed the design and prototyping of a thermal management structure tailored to the heat dissipation requirements of the space environment.



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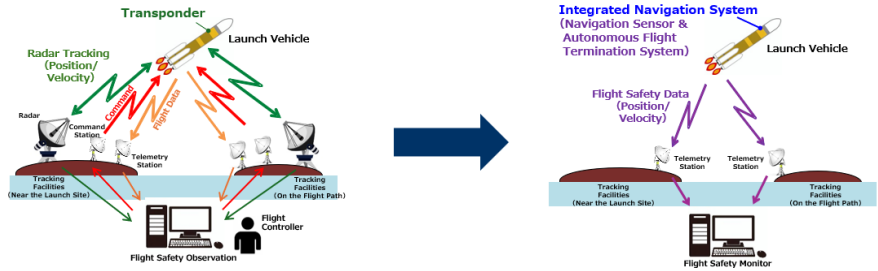
Key progress and achievements of SSF 1st phase Projects

SPACE STRATEGY FUND

Transportation

- **Mitsubishi Precision has completed the fabrication of a Breadboard Model (BBM) of a compact, low-cost, high-performance integrated navigation system for autonomous flight safety** and has begun its evaluation. The hardware for a vehicle simulator (used for ground-based verification) has also been completed, and the software to be installed on this simulator is currently under design. Furthermore, the company secured an opportunity to conduct a flight demonstration of the system aboard a rocket operated by a launch service provider.



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Key progress and achievements of SSF 1st phase Projects

SPACE STRATEGY FUND

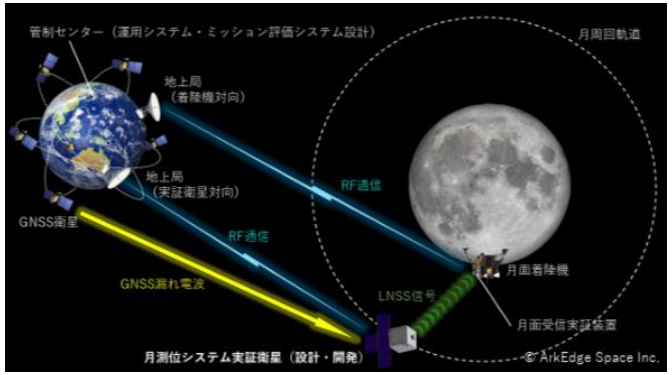
Exploration etc.

- **Japan LEO Shachu, Inc. has completed the system definition review for its Japanese module system and HTV-XC system** definition review and commenced preliminary design. Regarding the technology development theme, "technologies for a resupply system possessing international competitiveness, autonomy, and operational flexibility", the company has completed the system definition review for the HTV-XC and has commenced basic design. Furthermore, capital contributions from Mitsubishi Heavy Industries and Mitsubishi Electric have been finalized to accelerate this technology development.



- **Toyota Motor Corporation has completed the conceptual design for a regenerative fuel cell system and has begun basic design work**; the company has also commenced construction of a domestic evaluation facility to conduct energy-cycling tests (with operations scheduled to begin in fiscal year 2027).

- **ArkEdge Space has established the “Shinkiba Lab,” a manufacturing facility for a 100-kg-class lunar positioning demonstration satellite** and moved into the satellite manufacturing phase.



© ArkEdge Space

Key progress and achievements of SSF 1st phase Projects

SPACE STRATEGY FUND

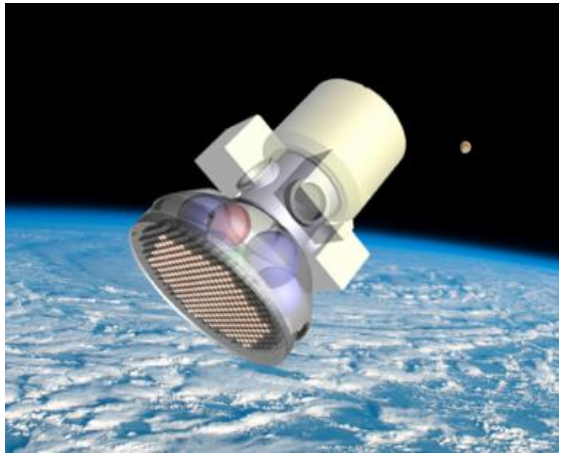
Cross-cutting

- **Nagoya University conducted combustion experiments on a stably operated liquid-propellant detonation engine* in September 2025 and a clustered detonation engine featuring multiple combustion chambers, paving the way for future demonstration tests**. A research paper on this work was selected by the American Institute of Aeronautics and Astronautics (AIAA) for inclusion in a collection of 100 landmark papers on the history of rocketry.

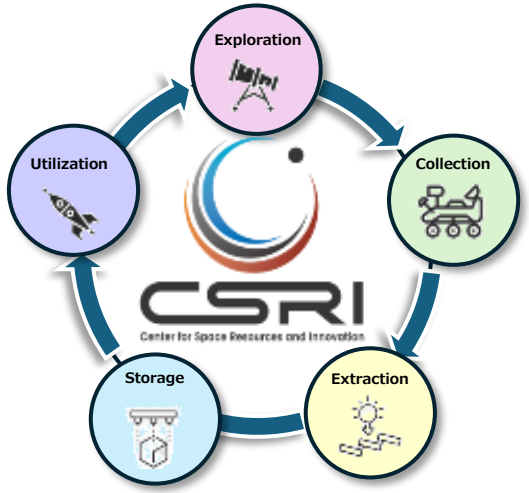
  *A high-efficiency engine that generates propulsion by sustaining a continuous, rotating detonation (explosion).

- **The University of Tokyo established the "Center for Space Resources and Innovation**" in October 2025.

- **The University of Aizu** (with Ritsumeikan University as the lead institution) **will launch public access to the "Hakoniwa Chamber"—a large-scale test facility** that replicates the electrically charged, dusty environment of the lunar surface—in April 2028. Trial operations, including the control of temperature and electric fields, are scheduled to begin in April 2026.



© Nagoya University



© University of Tokyo

SPACE STRATEGY FUND

Summary of 3rd Phase (FY2026-)

- Under the Selection Process



3rd Phase: 19 Technology Development Themes
(FY2025 Supplementary Budget: Total of 200 Billion JPY)

SPACE STRATEGY FUND

Transportation

【MEXT】Offshore Utilization Technologies for Launch Systems *(Up to Approx. 9 B JPY)*

-Developing technologies adaptable for offshore deployment of launch systems, with the aim of establishing a technological foundation to support diverse future space transportation and accelerating the demonstration of launch systems in offshore environments.

【MEXT】Thermal Protection Technologies for Atmospheric Reentry of Space Transport Vehicles *(Approx.9.5 B JPY)*

-Developing new thermal protection components and core thermal protection systems that excel in low cost, reusability, and maintainability—key technologies essential for realizing space transport vehicles capable of atmospheric reentry.

【METI】Acceleration of Commercial Rocket Launch Demonstrations *(Up to Approx. 24 B JPY)*

-Developing and demonstrating system functionalities to expand launch services through multiple launches of private rockets in the early commercialization phase, as well as improvements in design and manufacturing processes to enhance reliability, aimed at promoting the early commercialization of internationally competitive transport services.



Image of a Space Transport Vehicle During Atmospheric Reentry

【METI】Enhancement and Optimization of Rocket Flight Operations *(Up to Approx. 5 B JPY)*

-Aiming to enhance and optimize rocket flight operations by improving the efficiency of flight analysis and flight safety assessment, as well as expanding the coverage and reducing the cost of rocket tracking.

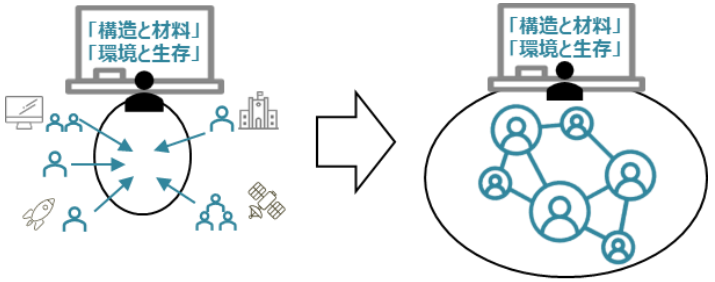
Cross Cutting

【MEXT】Integration of SX Technology Seeds and Human Resource Development Hub *(Up to Approx. 11 B JPY)*

-Creating innovative outcomes and distinctive technologies by establishing a framework centered on researchers from universities and other institutions, deepening collaboration among diverse communities in the space sector to drive its continuous development, and aiming to form an internationally competitive space cluster with this framework at its core.

【MEXT】Advanced Research for the Development of the SX Foundational Domain *(Up to Approx. 10 B JPY)*

-Developing challenging and emerging elemental technologies in the designated fields of “Structures and Materials” and “Environment and Sustainability,” areas established to overcome bottlenecks in future space development and utilization, with participation from diverse private companies, universities, and other stakeholders.



Conceptual Image of the SX Foundational Domain Development Research Program (Prepared by MEXT)

3rd Phase: 19 Technology Development Themes
(FY2025 Supplementary Budget: Total of 200 Billion JPY)

SPACE STRATEGY FUND

Exploration

Lunar Development ・ Deep Space Exploration

【MIC】 Development and Demonstration of Ground Station Systems Required to Realize a Communication Infrastructure between the Moon and Earth *(*Up to *Approx. 5 B JPY)*

-Developing ground station systems capable of supporting high-capacity communications between the Moon and Earth in order to facilitate lunar surface activities, ensure operational autonomy, and secure market opportunities.

【MEXT】 Technologies for the Utilization of Space Resources, Including Those on the Moon and Asteroids *(*Up to *Approx. 9.5 B JPY)*

-Developing innovative technologies that enable high-frequency, rapid-response rendezvous with and mining of arbitrary asteroids and other celestial bodies. Additionally, developing elemental technologies required for lunar surface sample return missions.

Low Earth Orbit Utilization･ISS

【MEXT】 Development of Technologies to Promote the Utilization of Low Earth Orbit (LEO) *(*Up to *Approx. 11.2 B JPY)*

-Developing technologies to expand and promote the utilization of low Earth orbit (LEO), including accelerating space demonstration through research and equipment development for space experiments, as well as enabling low-orbit experiment simulations and other utilization-promoting capabilities.

【MEXT】 LEO Hub Reboost Technologies *(*Up to *Approx. 6 B JPY)*

-Developing reboost capabilities that can be provided to commercial space stations, along with the autonomous control technologies required to implement them.



Thruster Firing (Russian Progress Cargo Spacecraft)

3rd Phase: 19 Technology Development Themes
(FY2025 Supplementary Budget: Total of 200 Billion JPY)

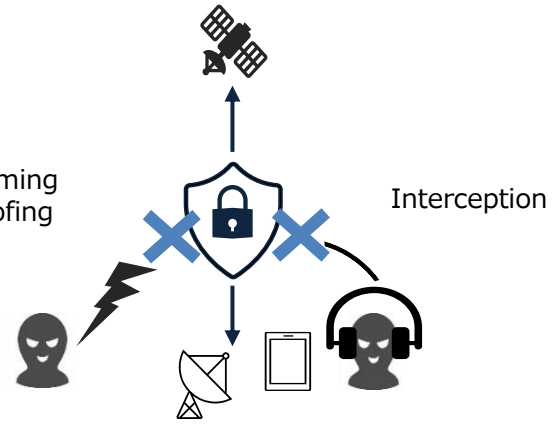
SPACE STRATEGY FUND

Satellites

Satellites Common Technologies・On-orbit Servicing

【MIC】Development and Demonstration of Security Technologies for Satellites, Including Countermeasures against Signal Jamming and Interception *(Up to Approx. 2.5 B JPY)*

-Developing communication equipment capable of countering threats such as satellite communication jamming and interception, with the aim of capturing growing demand in the expanding satellite security market.



Conceptual illustration of countermeasures against threats (Prepared by MIC)

【MEXT】Development of Optical and Quantum Sensing Technologies for Satellite Applications *(Up to Approx. 15 B JPY)*

-Implementing technology development to accelerate the study, research and development, and demonstration of optical and quantum sensing technologies for satellite applications, which are expected to achieve performance improvements of two or more orders of magnitude over conventional sensors in terms of accuracy, sensitivity, dynamic range, and other parameters.

【MEXT】Development of Innovative Space System Technologies Leveraging Physical AI and Related Advanced Approaches *(Up to Approx. 8 B JPY)*

-Developing AI models and hardware for application to on-orbit services using advanced AI technologies. In addition, developing a shared on-orbit module that enables companies, universities, and other entities to widely conduct experiments and demonstrations using AI.

【METI】Development and Demonstrating Technologies to Modernize Satellite Development and Manufacturing Processes Based on Digital Technologies, and to Enhance Their Functional Capabilities *(Up to Approx. 23 B JPY)*

-Promoting the standardization of architectures, interfaces, and models across multiple types of satellites, as well as advancing the standardization of development processes utilizing digital technologies and conducting technology development that contributes to cost and labor-hour reductions, thereby enhancing the efficiency of satellite development and manufacturing processes.

[METI] Development and Demonstration of Low-Cost, High-Frequency On-Orbit Demonstration Technologies Using Satellites to Expand *Opportunities* for On-Orbit Demonstration *(Up to Approx. 4.8 B JPY)*

-Through the development of technologies that enhance the efficiency and rapidity of on-orbit demonstration service processes, low-cost and high-frequency on-orbit services delivered by satellites will be realized.

[METI] Acceleration of Commercialization to Ensure Autonomy in Anticipation of Space Traffic Management *(Up to Approx. 15 B JPY)*

-Through support for the development and implementation of a commercial SSA (Space Situational Awareness) data infrastructure, an integrated satellite operations platform, and cybersecurity infrastructure underpinning satellite operations, the initiative aims to ensure autonomy in anticipation of Space Traffic Management (STM).



Image of STM (Space Traffic Management) and SSA (Space Situational Awareness)
(Generated by Microsoft Copilot)

3rd Phase: 19 Technology Development Themes

(FY2025 Supplementary Budget: Total of 200 Billion JPY)

SPACE STRATEGY FUND

Satellites

Communications・Earth Observation

【MIC】Development and Demonstration of a General-Purpose Ground Antenna and Use Cases to Broaden the Application of Satellite Communications (Up to *Approx. 7 B JPY*)

-By developing antennas capable of supporting multiple services and, for example, establishing technologies for integration with vehicle bodies, the use of satellite communications will be expanded to applications such as autonomous driving, thereby promoting the growth of the space-related market.

【MIC】Development and Demonstration of Q/V-Band and Related Communications Equipment (Up to *Approx. 9.3 B JPY*)

-As the number of satellite launches increases and radio frequency resources become increasingly congested, advanced communications equipment for Q/V bands and related frequencies will be developed ahead of the rest of the world in order to meet growing communication demand.

【MIC】Development and Demonstration of Innovative Onboard Satellite Antennas to Realize Next-Generation Satellite Communications (Up to *Approx. 6.3 B JPY*)

-Developing an innovative satellite-mounted antenna that enhances the functionality of onboard antennas supporting communications between satellites and the ground.

※Note: This also includes common environment development costs for launch and on-orbit demonstration under 2nd Phase of the Space Strategy Fund “SX Core Area Breakthrough Researches” (approx. 3 B JPY), as well as management costs for this fund program (approx. 5.8 B JPY).

SPACE STRATEGY FUND

How international partners can work together with the SSF funded organizations



Treatment of Foreign Organizations under the SSF

SPACE STRATEGY FUND

- **Space Strategy Fund supports organizations incorporated under the laws of Japan and having its R&D place in Japan**. In addition, **only residents of Japan are qualified** to be applicants.
- **Foreign company can be a Partner Organization** of a Japanese company for the application.
- **Since Partner Organization is expected to conduct R&D without receiving funding from SSF, we would like them to receive funding from their own country, if necessary.**

■ Participating organization category of SSF

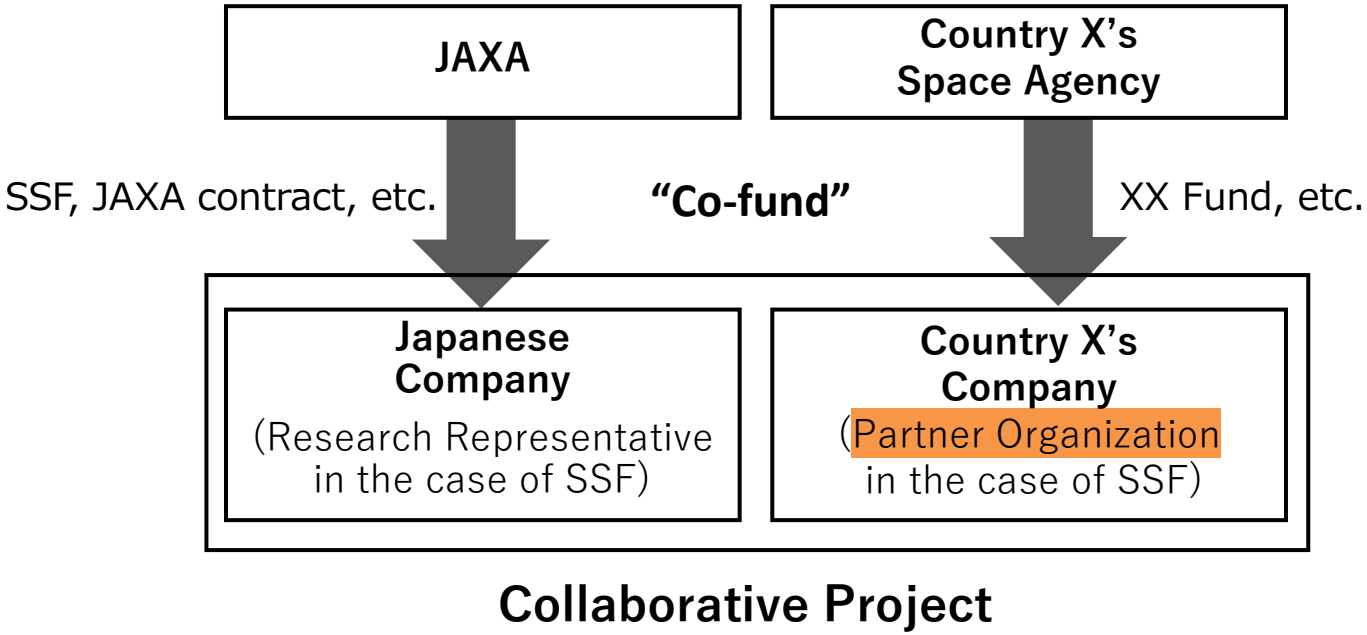
	Receive Subsidy (基金の受領)	Conduct R&D (研究開発行為)	Japanese Legal Status (日本法人要件)
Research Representative Organization (RRO) (研究代表機関)	Receive directly from JAXA	Yes	Required
Collaborative Organization (CO) (連携機関)	Receive through RRO	Yes	Required
Partner Organization (協力機関)	**No**	**Yes, but not funded by SSF**	**Not Required**
Supplier (外注先)	Receive contracted amount from RRO or CO	No (RRO cannot outsource R&D)	Not Required

Co-funded Business Promotion Framework (CBPF)

SPACE STRATEGY FUND

- JAXA published CBPF for encouraging co-funded business by **enabling information sharing and utilizing it for the evaluation process of both space agencies' funding programs**.
- JAXA is exploring partnerships with foreign space agencies under this framework.

■ Image of Co-funded business



■ Cooperating Countries under CBPF

UK UKSA
in 2025 Oct.

UK SPACE AGENCY

France CNES
in 2026 Apr.

cnes

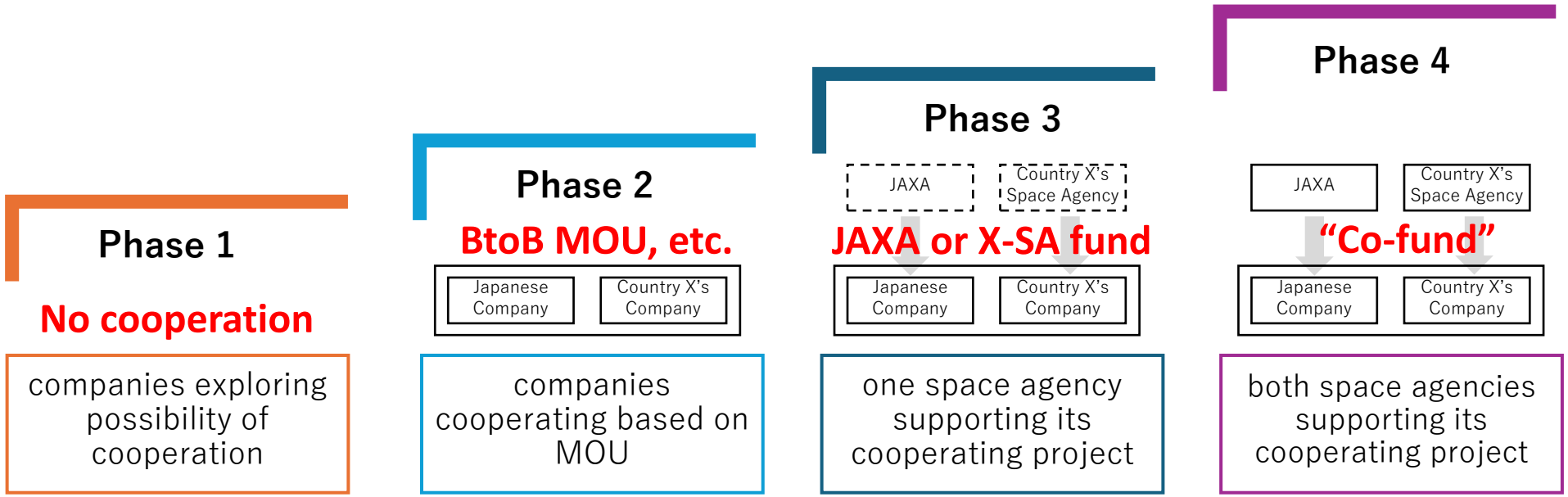
Singapore NSAS
in 2026 July.

National Space Agency of Singapore

Co-funded Business Promotion Framework (CBPF)

SPACE STRATEGY FUND

- In CBPF, we defined the cooperation status of companies in 4 phases.
- **CBPF expects both space agencies to work together for the following items.**
  - Both Space Agencies provide **B2B matching opportunities** <Phase 1 → Phase 2>
  - **Collect information** of Phase 2, 3, 4 cooperation and **share** it between space agencies
  - **Reference the above information in selection process** of support programs to phase up if desired <Phase 2 → 3, Phase 3 → 4>
  - Phase 3 allows autonomous and flexible decision for both, not need to pursue Phase 4 for everything



■ **Detailed Document**

"Co-Funded Business Promotion Framework"

Published in 2025 Sep. from JAXA

In English

Opportunities to meet with Japanese companies in 2026

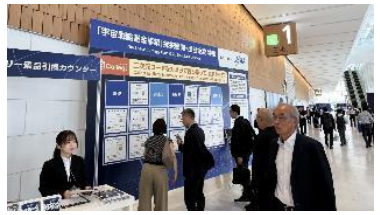
SPACE STRATEGY FUND

- **JAXA is planning booth exhibitions and events with Japanese companies** at major trade shows in Japan and abroad, cooperating with CAO, MOFA, METI, JETRO, etc.




Japanese space industry booth

Space Symposium 2026
Colorado Springs, USA
Held in April 2026

SSF featured event

SPEXA 2026
Tokyo, Japan
Held in May 2026

JAXA's 2027 tentative schedule

- Dec 1-4: **NIHONBASHI SPACE WEEK 2026**, Tokyo, Japan – **SSF featured panel**
- Feb 25-26: **Singapore Space Summit**, Singapore – **Japanese Companies Delegation [TBD]**
- April 12-15: **Space Symposium 2027**, Colorado Springs, USA -- **Japanese companies booth**
- May 12-14: **SPEXA 2027**, Tokyo, Japan -- **SSF featured event**
- July: **SPACETIDE 2027**, Tokyo, Japan -- **SSF featured event [TBD]**
- Aug 1-4: **Small Sat Conference 2027**, Utah, USA -- **Japanese company booth**
- Sep 27 – Oct 1: **IAC 2027**, Poznan, Poland -- **Japanese company booth**
- Nov 23 – 26: **APRSAF-33**, Fukuoka, Japan –- **B2B Matching Event [TBD]**
- Nov 30 – Dec 2: **Space Tech Expo Europe 2027**, Frankfurt, Germany -- **Japanese companies booth**

Japanese Space Industry Catalog (JSIC)

SPACE STRATEGY FUND

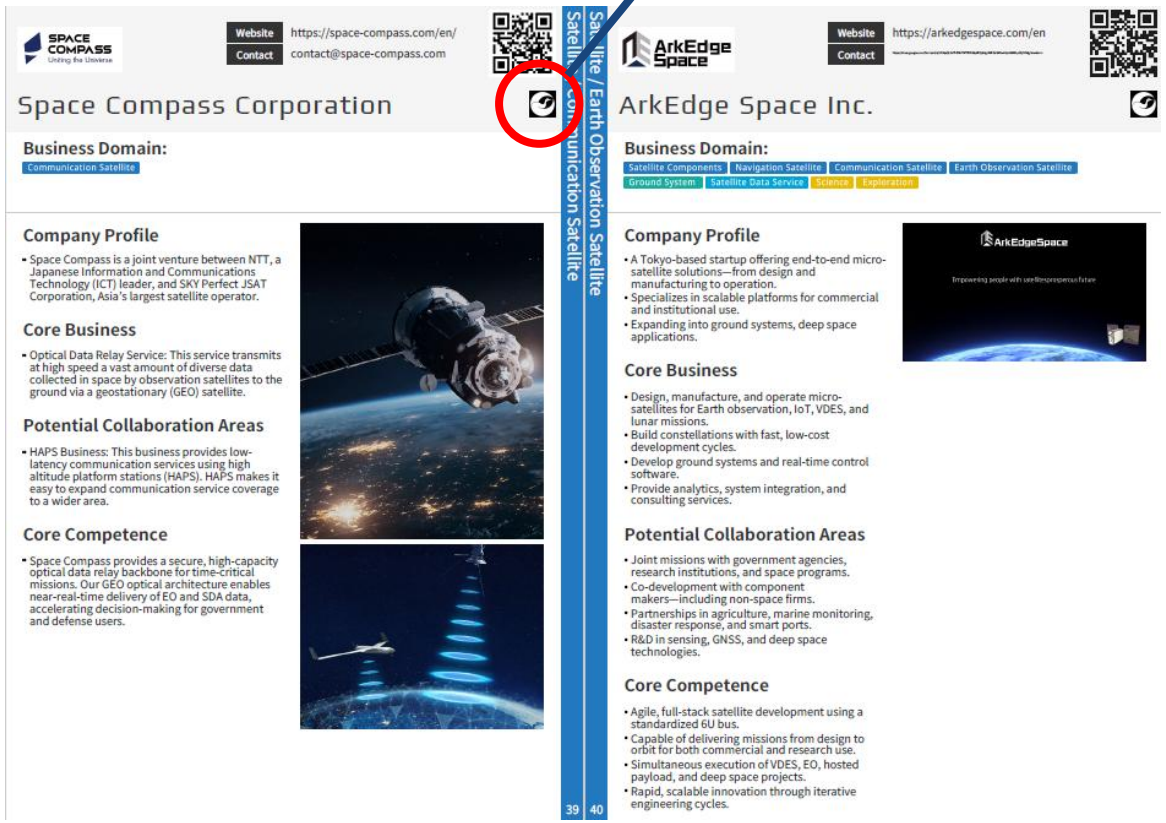
- **You can access to the web version of JSIC from the following URL or QR code.**
  https://aerospacebiz.jaxa.jp/japanese-space-industry

Catalog



Page layout

Companies selected by the SSF are marked with this logo



SPACE COMPASS

Website https://space-compass.com/en/
Contact contact@space-compass.com

Space Compass Corporation

Business Domain:
Communication Satellite

Company Profile
- Space Compass is a joint venture between NTT, a Japanese Information and Communications Technology (ICT) leader, and SKY Perfect JSAT Corporation, Asia's largest satellite operator.

Core Business
- Optical Data Relay Service: This service transmits at high speed a vast amount of diverse data collected in space by observation satellites to the ground via a geostationary (GEO) satellite.

Potential Collaboration Areas
- HAPS Business: This business provides low-latency communication services using high altitude platform stations (HAPS). HAPS makes it easy to expand communication service coverage to a wider area.

Core Competence
- Space Compass provides a secure, high-capacity optical data relay backbone for time-critical missions. Our GEO optical architecture enables near-real-time delivery of EO and SDA data, accelerating decision-making for government and defense users.

Satellite / Earth Observation Satellite

ArkEdge Space

Website https://arkedgespace.com/en
Contact

ArkEdge Space Inc.

Business Domain:
Satellite Components | Navigation Satellite | Communication Satellite | Earth Observation Satellite | Ground System | Satellite Data Service | Science | Exploration

Company Profile
- A Tokyo-based startup offering end-to-end micro-satellite solutions—from design and manufacturing to operation.
- Specializes in scalable platforms for commercial and institutional use.
- Expanding into ground systems, deep space applications.

Core Business
- Design, manufacture, and operate micro-satellites for Earth observation, IoT, VDES, and lunar missions.
- Build constellations with fast, low-cost development cycles.
- Develop ground systems and real-time control software.
- Provide analytics, system integration, and consulting services.

Potential Collaboration Areas
- Joint missions with government agencies, research institutions, and space programs.
- Co-development with component makers—including non-space firms.
- Partnerships in agriculture, marine monitoring, disaster response, and smart ports.
- R&D in sensing, GNSS, and deep space technologies.

Core Competence
- Agile, full-stack satellite development using a standardized 6U bus.
- Capable of delivering missions from design to orbit for both commercial and research use.
- Simultaneous execution of VDES, EO, hosted payload, and deep space projects.
- Rapid, scalable innovation through iterative engineering cycles.

39 40

QR Code

Japanese Satellite Component Catalog

SPACE STRATEGY FUND

- **A catalog of Japanese satellite subsystems, components, and parts**
- **Discover Japanese suppliers for your next satellite mission**

50+
Component categories

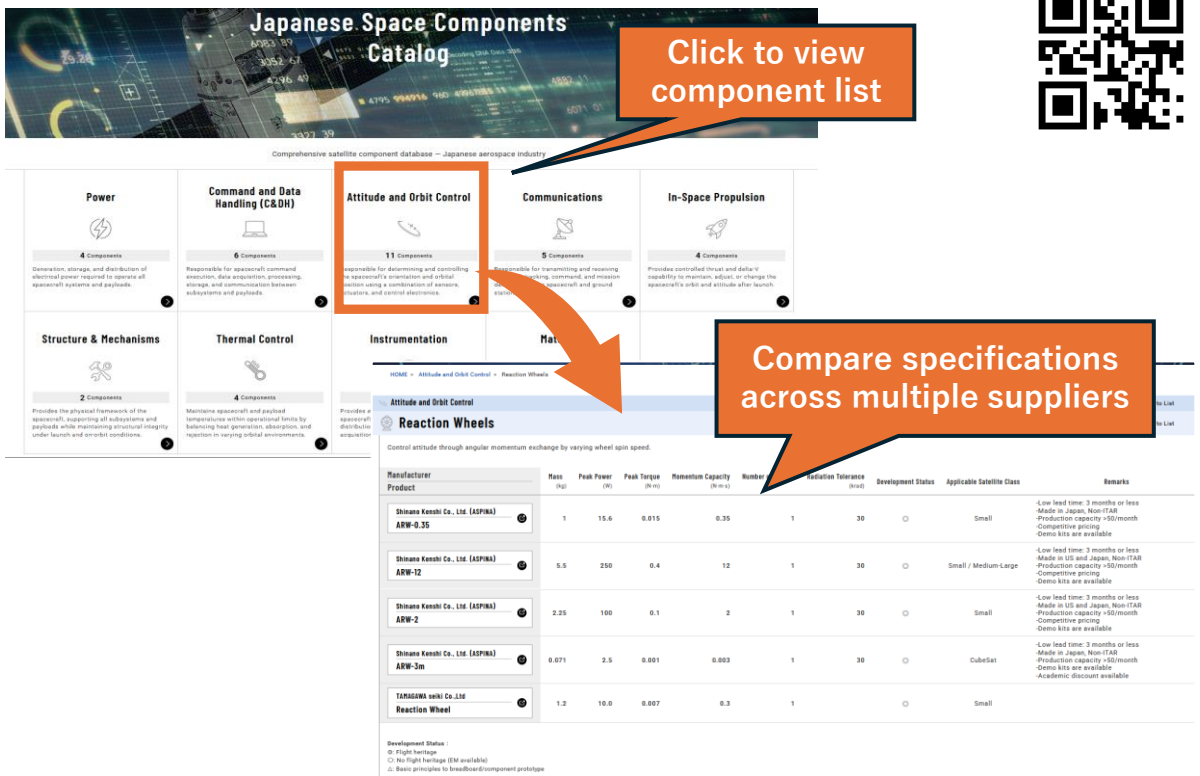
■ Component–Supplier Matrix

Japanese Satellite Component Catalog

Products: Subsystem	Component		Supplier: ADDNICS Corp.	Alouette Technology	ArkEdge Space Inc.	ArumoTech Corp.	Astrex	Composite Tailors Co., Ltd.	cosmobloom Inc.	EAGLE INDUSTRY CO., LTD.	GENE
<Bus>											
Power	Power Generation	Solar Cells									
		Solar Panels & Arrays							□		
	Energy Storage	Batteries					○				
	Power Management and Distribution	Power Conditioning & Distribution Unit (PCDU)					○				
Command and Data Handling (C&DH)	Onboard Computer (OBC)	OBC Module									
		Processing & Memory Unit									
		Interface & Power Board									
		Flight Software									
	Communications Interfaces										
	Memory / Data Recorder										
Attitude and Orbit Control	Integrated Units				○						
	Sensors	Sun Sensors									
		Magnetometers									
		Earth Sensors									
		Star Trackers									
		Gyroscope / Inertial Measurement Unit (IMU)									
		GPS Receivers									
	Actuators	Magnetic Torquers									
		Reaction Wheels									
		Control Momentum Gyroscopes									
	Drive/Control Electronics										

Click a symbol where a component row meets a supplier column.
You will jump to that supplier's webpage for the product.

■ Web-based Component Catalog (Beta)



Choose a category to see its component list and compare specifications across multiple suppliers.

Detailed Information of SSF (Sorry, Japanese only)



Cabinet Office HP
The Space Strategy Fund



JAXA The Space Strategy Fund
website

JAXA

SPACE
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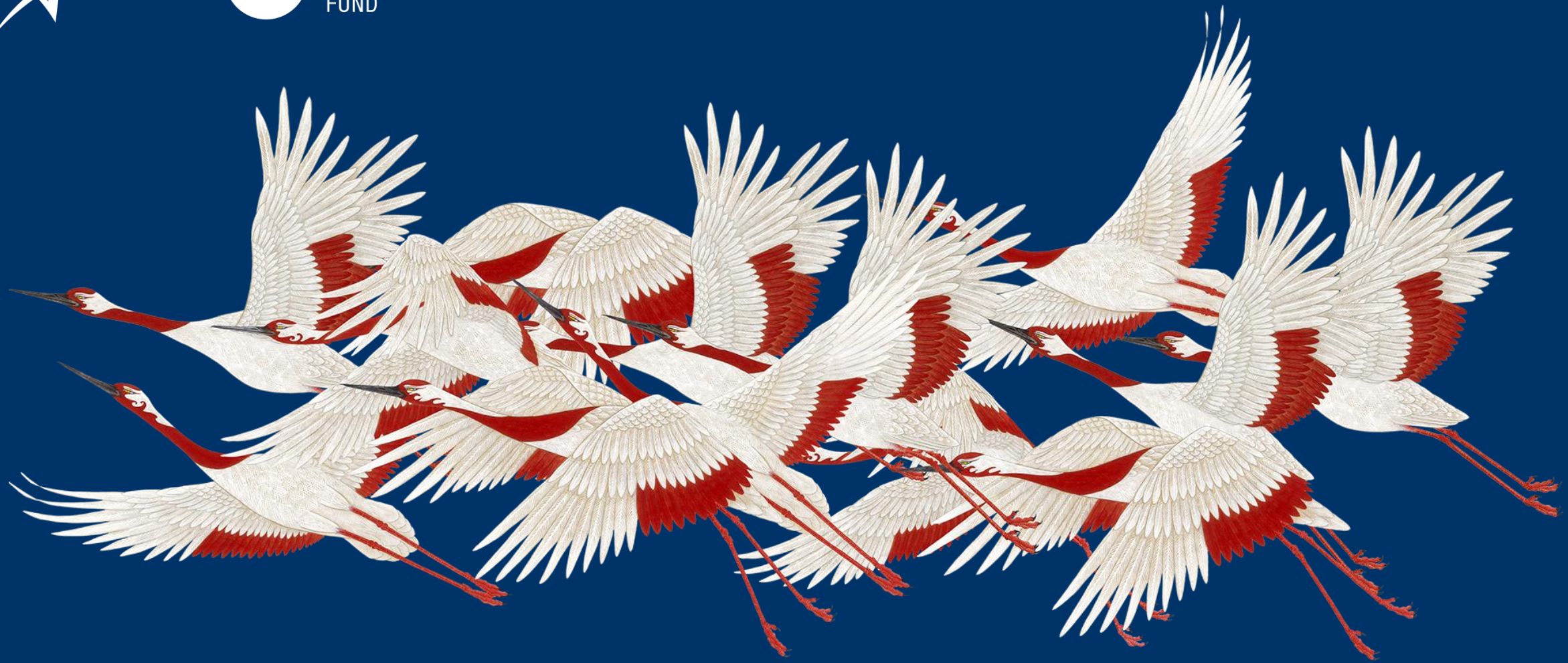

Cranes have been loved as a good-luck charm in Japan since ancient times, and in winter they migrate to faraway wintering grounds. When they do so, **they fly in formation**, and it is said that they can fly farther as a flock by riding the air currents created by the flapping wings of the bird in front. **Three birds can fly farther than one.**

This overlaps with the Space Strategy Fund's desire to “catapult Japan's space industry forward" as a hub for industry, academia, and government.