Learn more about the SBIR Phase 3 projects!

Discover technologies that will change the world's future!
Inquiries are welcomed from anyone who is interested!
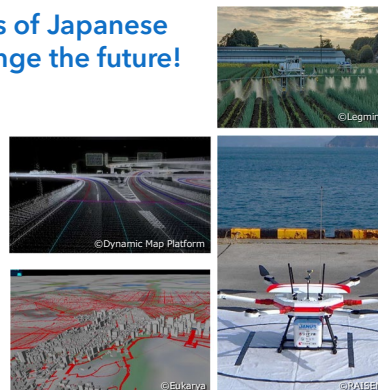
Preparation and release of the SBIR Demonstration Project Compendium

We have published the SBIR Demonstration Project Compendium to compile the large-scale technology demonstration projects undertaken by companies selected for SBIR Phase 3.

SBIR
Demonstration Project Compendium

The technologies of Japanese startups will change the future!

Cabinet Office
Ministry of Education, Culture, Sports, Science and Technology
Ministry of Health, Labour and Welfare
Ministry of Agriculture, Forestry and Fisheries
Ministry of Economy, Trade and Industry
Ministry of Land, Infrastructure, Transport and Tourism

Second edition (March 2025)

Small/Startup Business Innovation Research

The following information is provided for each demonstration project:

▶ Overview of large-scale technology demonstration
▶ Development schedule and targets for social implementation
▶ Developer's message (future vision)
▶ Company details and contact information

Available on the SBIR special site

https://sbir.csti-startup-policy.go.jp/phase3fund

Small/Startup Business Innovation Research

Publisher: Secretariat of Science, Technology and Innovation Policy, Cabinet Office
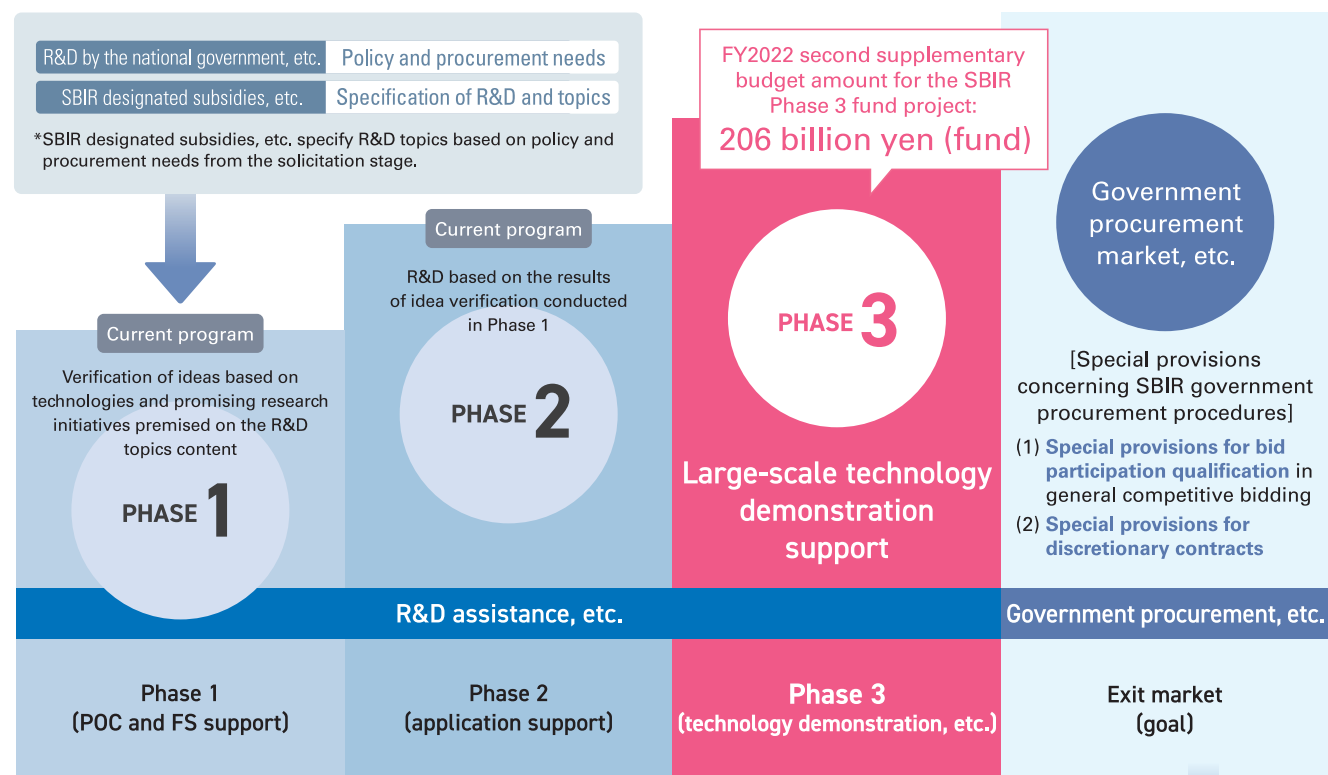
SBIR Phase 3 Projects

Create a Sustainable Future with Japanese Startup Technologies!

Small/Startup Business Innovation Research Program

What is the SBIR Program?

The Small/Startup Business Innovation Research (SBIR) Program is designed to encourage innovation creation in Japan through promoting R&D of startups and other small businesses and facilitating the implementation of their products in society.

At the same time, one of the program's objectives is to solve various social issues facing Japan through the social implementation of innovative technologies. Previously, the focus was on supporting technology development by SMEs with public procurement in mind, but now it has shifted to R&D support for startups. The scope and scale of subsidies under the system have also been drastically expanded.

In addition to the expansion of support for the feasibility study (FS) phase of business ideas (Phase 1) and the R&D phase toward practical application (Phase 2), a new phase (Phase 3) for large-scale technology development and demonstration in advanced technology fields has been added to the scope of support.

R&D by the national government, etc. — Policy and procurement needs
SBIR designated subsidies, etc. — Specification of R&D and topics

*SBIR designated subsidies, etc. specify R&D topics based on policy and procurement needs from the solicitation stage.

FY2022 second supplementary budget amount for the SBIR Phase 3 fund project:
206 billion yen (fund)

Government procurement market, etc.

PHASE 3
Large-scale technology demonstration support

[Special provisions concerning SBIR government procurement procedures]
(1) **Special provisions for bid participation qualification** in general competitive bidding
(2) **Special provisions for discretionary contracts**

Current program
R&D based on the results of idea verification conducted in Phase 1

PHASE 2

Current program
Verification of ideas based on technologies and promising research initiatives premised on the R&D topics content

PHASE 1

R&D assistance, etc.	Government procurement, etc.
Phase 1 (POC and FS support)	
Phase 2 (application support)	
Phase 3 (technology demonstration, etc.)	
	Exit market (goal)

Promotion of government procurement of R&D achievements under SBIR

01 Expansion of bid participation opportunities: Special provisions for bid participation qualification
Regardless of bid participation qualification status or whether there is past provision experience, participation in all bids is basically allowed.

02 Procurement methods for R&D achievements: Special provisions for discretionary contracts
For R&D achievements, if it is confirmed at the time of announcing the final evaluation results that there are no equivalent technologies, procurement related to R&D achievements through discretionary contracts, technology studies (demonstration testing for procurement purposes), and other methods are possible.

Contributing to the promotion of social implementation of advanced technologies held by startups

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Examples of major technology demonstration projects

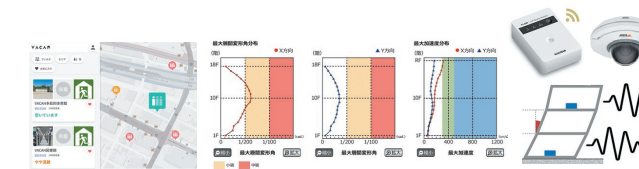### 01 Development and demonstration of private rockets
Assistance for startups developing and conducting flight demonstrations of internationally competitive rockets.

	(1) Suborbital space travel	(2) Orbital space travel	(3) High-speed point-to-point (P2P) passenger transportation
A. Vertical takeoff / Horizontal landing / Rocket engines only	Case A (1): Single-stage	Case A (2): Two-stage	Case A (3): Single-stage
B. Horizontal takeoff / Horizontal landing / Air-breathing engines, etc.	Case B (1): Single-stage	Case B (2): Two-stage	Case B (3): Single-stage

Practical satellite launch system technology

02 Disaster risk reduction technologies
The project aims to reduce the workload of local governments, unify the information infrastructure, provide real-time information to residents, and more by combining various solutions that automate and optimize shelter management tasks using digital technology.

Development and demonstration at local governments of sensing technologies, integration/analysis technologies, UI/UX, etc.

03 Demonstration of nuclear fusion technologies
Assistance for startups demonstrating the essential technologies required for achieving nuclear fusion power generation, aiming for implementation in domestic and international fusion-related equipment.
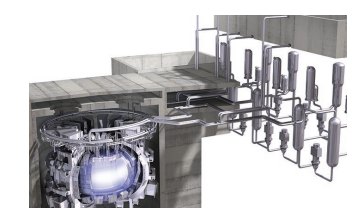
Implementation in fusion-related equipment

04 Digital twins
Acquisition of three-dimensional data of structures to monitor their conditions, use of that data to construct digital twins, and study of the results aiming for efficient maintenance and management.
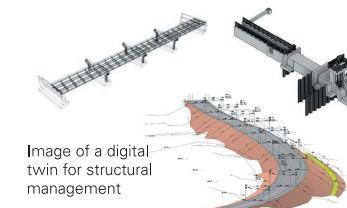
Image of a digital twin for structural management

05 Development and demonstration of key technologies for space debris mitigation
Assistance for startups that aim to commercialize services and expand them globally after developing and demonstrating innovative technologies and systems essential for the removal of satellites that have become space debris in orbit, as well as developing and demonstrating technologies and components that promote the post-mission disposal of small satellites and other objects.

Image of space debris mitigation
Astroscale Japan Inc.

06 Flying cars
Two aircraft manufacturers, SkyDrive Inc. and teTra aviation Corp., have been selected. SkyDrive Inc.: Development of multicopters for point-to-point flights at Expo 2025 Osaka, Kansai, Japan, implementation of tests necessary for obtaining type certification required for mass production of these aircraft, etc. teTra aviation Corp.: Development of a lift + cruise flying car equipped with fixed wings, implementation of flight tests aimed at obtaining early certification by leveraging U.S. regulations, etc.

Aircraft image — SkyDrive Inc.
Aircraft image — teTra aviation Corp.

07 Automated driving (public transportation)
A consortium comprising startups and other organizations has been formed to advance development of automated driving technologies by leveraging the results of SIP and the strengths of various companies. Feedback from demonstrations of automated driving in regional public transportation, etc. will be incorporated into development, accelerating automated driving technology development and promoting the widespread adoption of automated driving mobility services.

Automated driving program
Control of large vehicles

08 Use of SAR satellites
With a focus on future plans for new SAR satellite launches and advancements in utilization technologies, efforts will be made to combine these with ground-based data such as LP as needed. Through demonstrations conducted at sites such as directly-managed national highways and rivers as well as erosion control areas, the applicability of these technologies will be verified, and the use of SAR satellite image analysis tailored to field needs will be promoted.
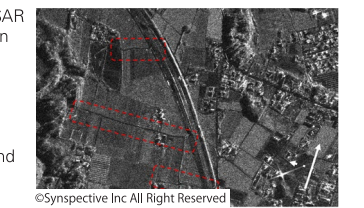
©Synspective Inc All Right Reserved
Ken-O Expressway near Narita Airport

09 Development and demonstration of smart agriculture, forestry, fisheries, and food sector technologies
Technology demonstrations aimed at improving productivity through the automation of work and the construction of precise production systems leveraging data in the food, agriculture, forestry, and fisheries sectors.
<Development items (examples)> Development and demonstration of harvesting and pesticide-spraying robots for horticultural crops, fully automated systems for manufacturing processes in prepared food factories, data management for overall rearing control of pig barns, automation of forestry logging work, AI-based fishing vessel operation monitoring systems, etc.

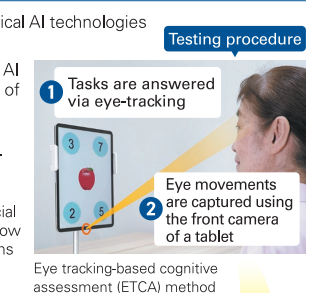Greenhouse demonstration of tomato harvesting robots
Digital transformation of pig barns

10 AI hospitals
<Development and demonstration of medical AI technologies aligned with healthcare needs>
Promotion of the social implementation of AI hospitals by accelerating the development of medical AI technologies aligned with healthcare needs through collaboration between startups and medical institutions.
<Development items (examples)>
Implementation of EHR-linked AI electronic medical questionnaires, development and social implementation of emergency medical workflow improvement tools, development of AI systems and devices for cognitive function and frailty assessment, etc.

Testing procedure
1 Tasks are answered via eye-tracking
2 Eye movements are captured using the front camera of a tablet
Eye tracking-based cognitive assessment (ETCA) method

Going forward, the Government of Japan plans to create a **roadmap outlining specific measures (government procurement, deregulation, standardization, etc.)** for the social implementation of technology demonstration results across all projects. This roadmap will be released during the technology demonstration period.