

# Overview of the PRISM R&D model

## What is the PRISM Review Board?

Stipulated the establishment of the PRISM Screening Board consisting of more than three Governing Board members, Executive Director, and Executive Members under the Governing Board to enhance the evaluation and management process by the Governing Board in “the Public/Private R&D Investment Strategic Expansion Program Operational Guideline” (the Governing Board decided on May 25, 2017).

Chaired by a Governing Board Committee member, currently operated with five members.

as of April, 2021

Committee Name	Affiliation, etc.	Remark
HASHIMOTO Kazuhito	CSTI Executive Member (President, National Institute for Materials Science)	Chair
UEYAMA Takahiro	CSTI Executive Member (Full-time)	Deputy Chair
KYUMA Kazuo	President of the National Agriculture and Food Research Organization	External Executive Member
SHINOHARA Hiromichi	CSTI Executive Member (Chairman of the Board of NIPPON TELEGRAPH AND TELEPHONE CORPORATION)	
SUDO Ryo	Policy Advisor & Executive Director in Charge of PRISM, Cabinet Office	

## What is the SIP-type management?

Stipulated the posting of Program Directors that each ministry and agency appoints per target measure (PD of each ministry) in “the Public/Private R&D Investment Strategic Expansion Program Operational Guideline” and implemented the SIP-type management.

### <Requirements of “the SIP-type management”>

- ① Each ministry and agency appoints Program Directors (PDs) per measure and concentrates the establishment/change of the overall research plan and authority for allocating budgets, etc., to PDs.
- ② Clear R&D objectives, establishment of milestones, detailed progress management, and flexible plan change
- ③ Implementation of each year’s evaluation and budget allocation that reflects it
- ④ Construction of an industry-academia-government collaboration system that industry, universities, etc., integrally promote.

### <Recommended conditions>

- ① Emphasize implementation/commercialization and an exit strategy toward market creation or acquisition
- ② Promote R&D thoroughly considering fields from fundamental study to commercialization
- ③ Promote R&D in “cooperative areas” that require public/private collaboration and inter-company collaboration and distinguish them from “competitive areas” where individual companies conduct R&D.
- ④ For measures where cross-ministerial collaboration, joint implementation, etc., are effective, the relevant ministries and agencies construct a system that promotes them comprehensively and integrally and propose it to the Cabinet Office. At that time, for PDs, appoint a person that supervises the overall relevant collaboration measure (Each ministry and agency that collaborates with each other on the relevant collaboration measures appoints the same PD).
- ⑤ Introduction of private research funds (matching fund, construction of a private-sector-led commercialization structure after completion, etc.)

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## Solve new social issues and strengthen competitiveness in Japan

### HASHIMOTO Kazuhito

President, National Institute for Materials Science  
Executive Member, Council for Science, Technology and Innovation,  
Cabinet Office

#### PRISM is the program that induces private R&D investment

**Q:** Could you tell us about the background of PRISM being established and the social conditions back then?

**HASHIMOTO Chair:** The Public/Private R&D Investment Strategic Expansion Program (PRISM) is the program that was established in 2018 to aim at guiding R&D measures of the government ministries and agencies to the areas that are supposed to have a great effect on inducing private R&D investment, expanding public/private R&D investment, and optimizing government expenditures. In order to further promote Science, Technology and Innovation, the growth engine in Japan, it is important to expand R&D investment in public and private sectors. The 5th STI Basic Plan back then set the object of expanding government R&D investment as a percentage of GDP by one percent and expanding private R&D investment as a percentage of GDP by three percent. Public and private sectors were supposed to make efforts to achieve this goal. It was important to create a situation that would let industry actively invest in R&D in addition to expand the government budget. So, we established this program (PRISM) promoting R&D by setting areas which industry cooperates to invest and intensively allocating budgets to such areas. I remember that I participated in the meeting to establish PRISM and held discussions as an executive member of the Council for Science, Technology and Innovation (CSTI).

#### Innovation occurred in measures of each ministry and agency

**Q:** Three years have passed since the PRISM was established. What do you think about the progress and its achievements so far?

**HASHIMOTO Chair:** The purpose of PRISM is to “induce private R&D investment”. I think that this has produced certain results. Furthermore, I found PRISM brought about unexpected effects besides these. Innovation occurred in measures of each ministry and agency.

For example, the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) previously checked whether there was any danger of river flooding visually. Now, however, MLIT has implemented measures to monitor in real time by deploying water gauges that measure automatically in order to respond to local heavy rainfall. In PRISM, the water level prediction model has been researched focusing on “when

water reaches the water level where residents have to evacuate” by utilizing the information collected from this measure and worked on developing the water level information supply system to help residents evacuate.

Although original measures started as an extension of previous measures, PRISM transformed them into innovation-oriented measures.

If each ministry implements measures with its budget, innovation rarely occurs because the ministry tends to follow precedents. However, by using PRISM to allocate the budget of the Cabinet Office to the measures where innovation is likely to occur, new potential is created to change the direction of the measures.

#### Greatly contribute to Japanese science, technology and innovation

**Q:** As you mentioned, the potential of PRISM has rapidly widened. Could you tell us about your future vision?

**HASHIMOTO Chair:** The mechanism of PRISM is unique: CSTI acts as the control tower to add budgets to R&D-related measures implemented by ministries and agencies and guide the measures of the government ministries and agencies. If PRISM facilitates innovation transformation, private investment is induced and the realization of sustainable innovation creation can be expected.

On the other hand, as PRISM is a short-term program, it is necessary to promote original measures with the budgets of each ministry and agency after R&D of each ministry and agency is accelerated with the PRISM budget. Allocating budgets to the measures which consider the exit strategy and realization of business model well can contribute to solving social issues and strengthening competitiveness in Japan, I think. In the R&D model, the direction for guiding measures is clearer, because the government reviewed the target areas as necessary and the target areas are proposed based on each area's strategy that the Integrated Innovation Strategy Promotion Council established. Also, constructing the structure of the system reform model including the Project for Strengthening the Innovation Creation Environment in National Universities in order to promote innovation through not individual areas but system reform widens the scope of measures that can be implemented in PRISM. In addition, we are going to improve its recognition by holding symposiums and preparing brochures. We expect the future development of PRISM by continuing these reviews and improvements.