Summary of the PRISM R&D Models

2018 PRISM R&D Model   Budget allocation target measures

Area name	Ministry/agency name	PRISM target measure name
Innovative Cyber Space fundamental technology (Current AI technology area) (Eight measures)	Ministry of Agriculture, Forestry and Fisheries	Development of an efficient distribution support system for food products utilizing AI
	Ministry of Internal Affairs and Communications	Establishment and demonstration of common IoT fundamental technology
	Ministry of Economy, Trade and Industry	Optimizing production and distribution of food using AI technology among the development of core technologies for next-generation artificial intelligence and robots
	Ministry of Economy, Trade and Industry	Establishment of a Japanese model of community-based comprehensive care in the development of core technologies for next-generation artificial intelligence and robots
	Ministry of Education, Culture, Sports, Science and Technology	AIP: Artificial intelligence/Big data/IoT/Cyber security integration project
	Ministry of Health, Labour and Welfare	Development of AI to accelerate drug discovery
	Ministry of Internal Affairs and Communications	Advanced multilingual speech translation technology
	Ministry of Economy, Trade and Industry	Exploratory IT human resources discovery and training project (exploratory target business)
Innovative physical space Fundamental technology area (abolished) (Four measures)	Ministry of Agriculture, Forestry and Fisheries	Development of cultivation and labor management optimization technology utilizing AI
	Ministry of Education, Culture, Sports, Science and Technology	Innovative Materials Development and Capability Enhancement Programs (M-cube Program)
	Ministry of Education, Culture, Sports, Science and Technology	Quantum Leap Flagship Program (Q-LEAP)
	Ministry of Economy, Trade and Industry	Innovation promotion business for accelerating AI chip development

Area name	Ministry/agency name	PRISM target measure name
Technical area of innovative construction and infrastructure maintenance/ innovative disaster prevention and disaster mitigation (Nine measures)	Ministry of Agriculture, Forestry and Fisheries	Development of technology to reduce the risk of mountain disasters
	Ministry of Agriculture, Forestry and Fisheries	Development of field drainage/water retention function utilization methods to cope with heavy rain
	Ministry of Education, Culture, Sports, Science and Technology	Development of disaster prevention/mitigation technology that realizes high "business continuity" competency
	Ministry of Land, Infrastructure, Transport and Tourism	Promotion of i-Construction
	Ministry of Land, Infrastructure, Transport and Tourism	Realization of efficient and effective infrastructure maintenance and renewal
	Ministry of Land, Infrastructure, Transport and Tourism	Promotion of emergency response by early development of temporary/reconstruction housing
	Ministry of Land, Infrastructure, Transport and Tourism	Promotion of emergency response by providing weather and water level information
	Ministry of Land, Infrastructure, Transport and Tourism	Improvement of inspection/diagnosis efficiency by 3D/4D conversion of maintenance data for marine and coastal structures
	Ministry of Land, Infrastructure, Transport and Tourism	Research on enhancement of measures against typhoons and torrential rains

Summary of the PRISM R&D Models

2019 PRISM R&D Model　Budget allocation target measures

Area name	Ministry/agency name	PRISM target measure name
AI Technology area (11 measures)	Ministry of Health, Labour and Welfare	Construction and expansion of the disease database to accelerate drug discovery
	Ministry of Education, Culture, Sports, Science and Technology	Development of algorithms to infer drug targets
	Ministry of Health, Labour and Welfare	Building a platform for realizing smart care
	Ministry of Health, Labour and Welfare	Building a smart preventive Long-term care platform
	Ministry of Agriculture, Forestry and Fisheries	Smartification of large-scale facility production and cultivation utilizing AI
	Ministry of Education, Culture, Sports, Science and Technology	Development of odor sensors and moisture sensors for agriculture and livestock
	Ministry of Internal Affairs and Communications	Development of trusted mesh network technology
	National Police Agency	Research and development to utilize traffic signals for building 5G networks
	Ministry of Land, Infrastructure, Transport and Tourism	Productivity revolution based on the development of logistics data platform
	Ministry of Internal Affairs and Communications	Development of cyberattack countermeasure technology utilizing AI
	Ministry of Internal Affairs and Communications	Advancement of translation technology and promotion of private utilization
Technical area of innovative construction and infrastructure maintenance/innovative disaster prevention and disaster mitigation (11 measures)	Ministry of Land, Infrastructure, Transport and Tourism	[Data infrastructure] Establishment of "Data platform for the entire infrastructure sector"
	Ministry of Land, Infrastructure, Transport and Tourism	[Research/Survey/Design] 3D design system development that can be used for advanced laser surveying and construction maintenance
	Ministry of Land, Infrastructure, Transport and Tourism	[Construction/supervision inspection] Automatic control/group control of construction machinery for the realization of unmanned construction sites, 3D construction of construction data, and development of inspection technology based on such data
	Ministry of Land, Infrastructure, Transport and Tourism	[Maintenance] Research and development related to early detection, cause analysis, and repair of parts requiring repair by AI analysis of infrastructure data

Area name	Ministry/agency name	PRISM target measure name
Technical area of innovative construction and infrastructure maintenance/ innovative disaster prevention and disaster mitigation (11 measures)	Ministry of Education, Culture, Sports, Science and Technology	Construction of disaster prevention information service platform through public-private partnership and promotion of appropriate disaster response *Original measure name: Analysis of long-period seismic motion, detailed seismic intensity distribution, etc., and promotion of emergency response based on such analysis results
	Ministry of Land, Infrastructure, Transport and Tourism	Development of automatic detection and course prediction system for tornadoes, etc.
	Ministry of Agriculture, Forestry and Fisheries	Development of flood prevention system utilizing the water retention function of the field
	Ministry of Land, Infrastructure, Transport and Tourism	Promotion of emergency response by providing weather and river water level information
	Ministry of Agriculture, Forestry and Fisheries	Development of forest land collapse prediction system
	Ministry of Land, Infrastructure, Transport and Tourism	Development of housing damage (usability) judgment system using 3D laser scanners
	Ministry of Internal Affairs and Communications	Coordination of local government/lifeline information utilizing L alert
Bio technology area (Five measures)	Ministry of Health, Labour and Welfare	Building an infrastructure for diabetes-related healthcare information and building an infrastructure for healthcare information for industrial use
	Ministry of Agriculture, Forestry and Fisheries	Development of "pathway-type simulator" and construction of bio data federation
	Ministry of Agriculture, Forestry and Fisheries	Construction of centralized database of existing breeding data and development of genome editing target sequence prediction tool
	Ministry of Education, Culture, Sports, Science and Technology	Facilitating equipment sharing in basic biotechnology research
	Ministry of Land, Infrastructure, Transport and Tourism	Research and Development (R&D) Project for Implementation of Large-scale Timber Construction Contributing Wood Demand

*"Bio technology area": Bio Strategy 2019 was formulated in June 2019 and established in September 2019