Japan's Latest Science and Technology Policies

— Aiming to Make Japan the World's Most AI-Friendly Country and the Most Attractive Destination for Researchers —

July 30, 2025

Minoru Kiuchi
Minister of State for Science and Technology Policy, Cabinet Office

Benefits and risks of AI

- Generative AI is expected to bring about dramatic innovations in fields such as manufacturing, finance, healthcare, education, and administration. At the same time, addressing risks associated with AI is becoming increasingly important for both the public and private sectors.
- From the perspective of strengthening the competitiveness of Japan's AI-related industries, it is necessary to address both the benefits and risks.

Benefits of AI

Resolving labor shortages

- AI replaces some tasks such as inquiry response, inspection, and monitoring, allowing people to focus on creative work.

Streamlining administrative work

- Literature review, summary
- Proofreading and translation
- Preparation of meeting minutes, etc.
- Drafting of materials

Improving service quality

- Early detection of disease
- Provision of educational materials tailored to each student

Creating innovation

- Development of new materials
- Development of new drugs and treatments

Solving global issues

- Disaster prediction and countermeasures
- Highly profitable agriculture
- Pandemic countermeasures
- National security

Risks of AI

- Leakage of confidential information, Improper use of personal information
- Increasing sophistication and ease of crime
- Social concerns caused by disinformation and misinformation
- Sophistication of cyber attacks
- Impact on education
- Concerns about copyright infringement
- Impact on employment

AI Strategic Council / AI Institutional Study Group Overview of Interim Report

Background

- **While AI has the potential to greatly contribute to Japan's development, various risks are becoming apparent.**
- There are many concerns over AI, and **its development and use are not progressing** as quickly in Japan as in other countries.

▶ It is necessary **to ensure appropriate usage,** such as transparency, and **advance the development and use of AI**.

Basic Approaches

- **Promotion of innovation while mitigating risks (Ⅱ.3.)**
  - Promoting innovation including support for research and development, expert training, and expansion of data and computing resources
  - Appropriate combination of laws and guidelines
  - Use of common principles such as the OECD AI principles and Hiroshima Process International Guiding Principles with individual existing laws

- **International cooperation** (Ⅱ.4.)
  - Leading discussions to shape AI governance
  - Ensuring international consistency and interoperability

Specific Directions for Systems and Policies

- **Overall items** (Ⅲ.1.)
  - **Strengthening the government's strategic leadership**
  - **Formulating AI strategy**
    - **Strengthening AI strategic leadership** to oversee the whole picture
    - **Formulating AI strategy (AI Basic Plan)** to promote safe and secure research and development, and use of AI
  - **Improving AI safety**
    - **Establishing government guidelines (in accordance with the Hiroshima AI Process) and securing cooperation from business operators.**
    - **Conducting surveys and collecting information, and providing guidance, advice and information, etc. to business operators and residents**

Aiming to be the most AI-friendly country in the world

「The Act on Promotion of Research and Development, and Utilization of AI-related Technology」(AI Act)

- **Use of AI by the Government** (Ⅲ.2.)
  - Appropriate AI government procurement and use, etc.

- **Use in infrastructure services** (Ⅲ.3.)
  - Response based on laws for each field, etc.

Outline of the Act on Promotion of Research and Development, and Utilization of AI-related Technology (AI Act)

Basic Principles

- **AI is a foundation for economic and social development and an important technology for security.**
  →**Maintaining research and development capabilities, enhancing international competitiveness**
- **Promoting comprehensive and systematic research from basic research to utilization**
- **Ensuring transparency for appropriate research, development, and utilization**
- **Playing a leading role in international cooperation on research, development, and utilization under international coordination.**

Strengthening Leadership

- **Establishment of AI Strategic Headquarters (Chairman: Prime Minister, members: all cabinet ministers)**
  →Requesting necessary cooperation from relevant administrative agencies, etc.

Basic Measures

- **Formulating AI Basic Plan**: Establish basic policies that the government will implement to promote research, development, and utilization
- Establishing **guidelines in accordance with international norms**: Ensure the appropriateness of research, development, and utilization of AI-related technologies
- **Gathering information**, **analyzing cases** in which rights and interests are infringed, considering countermeasures, and **investigating**
- Providing **guidance, advice, and information** to businesses and residents

Responsibility

- **Business operators shall cooperate with measures implemented by the national government.**

Integrated Innovation Strategy 2025（measures concerning AI）

● Promoting R&D for AI ①

- **Strengthening foundation of scientific research data**
- Accelerating AI for Science
- Promoting **R&D of multimodal or physical AI**
- Promoting R&D or implementation of AI robots or platforms

● Promoting Expansion and Shared use of AI-related Facilities and Equipment ②

- Promoting expansion and sharing of research data platforms
- **Expanding data centers efficiently by coordinating power supply and communications infrastructure**
- Promoting **development and evaluation of trustworthy AI based on Japanese culture and habits**

● Promoting AI Utilization ③

- Promoting AI utilization in critical fields of **medical care, healthcare and robotics**
- Promoting **development and introduction of high-performance AI such as agentic AI**
- Appropriate procurement and utilization of AI by the government, sharing of knowledge

● Ensuring the Appropriateness of AI ④

- **Investigating and analyzing AI appropriateness and developing tools at AISI**
- Establishing **Chief AI Officer（CAIO）** in each ministry

● Promoting Education and Securing AI-related Talents ⑤

- **Educating students and young researchers involved in development of** next-generation semiconductors and **AI**
- **Securing and supporting workers with AI skills**

● Research and Studies Concerning AI ⑥

- Collecting information on safety measures by Big Tech
- Collecting information on real cases of AI utilization in critical businesses
- Surveying best practices on R&D and utilization
- **Analyzing and considering measures in cases where citizens' rights and interests are infringed** by developing or utilizing AI

● Promoting International Cooperation in the Field of AI ⑦

- **The outcomes of the Hiroshima AI Process**
- Strengthening collaboration with developing countries through use of GPAI framework

G7 Hiroshima Summit

AI Safety Institute（AISI）

- With the growing importance of AI governance internationally, **the AI Safety Summit** (Nov 2023, UK) triggered **discussions to institutionally embody "AI safety,"** and the UK and the US established AI Safety Institutes (AISI).

  * The UK changed the name to AI Security Institute in February 2025, and the US changed the name to CAISI in June 2025.
- Japan also established an AI Safety Institute in February 2024.
- As a hub of AI safety knowledge, AISI is currently strengthening its connections with relevant organizations in Japan and abroad
- AISI is creating criteria and guidance for AI safety assessment as described below while developing its capabilities to perform such assessments
  - **Guide to Evaluation Perspectives on AI Safety** presents basic concepts to consider when conducting AI Safety evaluations. (Sep 2024)
  - **Guide to Red Teaming Methodology on AI Safety** concerns **a method for evaluating the safety of AI systems** by considering them from the viewpoint of attackers. (Sep 2024)

AISI Japan AI Safety Institute

Summary of the Japan AISI

Name Japan AI Safety Institute（Abbr. J-AISI）

Mission
- Studies and standards related to safety assessment
- Studies on the implementation of safety assessment
- International collaboration with related organizations in other countries (such as the AI Safety Institutes in the U.K. and the U.S.)

Related organizations

Ministries: CAO, NSS, NISC, NPA, Digital Agency, MIC, MOFA, MEXT, MHLW, MAFF, METI, MLIT and MOD

Organizations: NICT, RIKEN, NII and AIST *** as of Apr 2025**

Executive Director of J-AISI

Akiko Murakami

Executive Officer, Chief Digital Officer, Sompo Japan Insurance Inc.

Former researcher of IBM Japan.

J-RISE Initiative

(Japan Research & Innovation for Scientific Excellence)

The J-RISE Initiative is…

an initiative aimed at making Japan the most attractive country in the world for researchers. Related ministries and agencies are working together to implement measures such as the creation of a world-class research environment and enhancing the appeal of invitations to overseas researchers, on a 100-billion-yen scale.

3 key points of the Initiative

1. To establish a world-class research environment including cutting-edge research facilities.
2. To invite researchers by offering support and benefits on par with global standards.
3. To promote attractive aspects of Japan, including its culture and living environment

J-RISE Initiative
(Japan Research & Innovation for Scientific Excellence)

○ Japan has continuously achieved high research results and has some of the world's most advanced research infrastructure.

- This century, Japan has boasted the second highest number of Nobel Prize winners in the natural sciences, following the United States.

Examples of Japanese Nobel Prize winners

○**Shinya Yamanaka**
(Nobel Prize in Physiology or Medicine 2012)

○**Hiroshi Amano**
(Nobel Prize in Physics 2014)

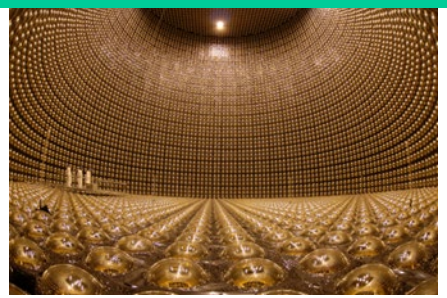
○**Takaaki Kajita**
(Nobel Prize in Physics 2015)

○**Akira Yoshino**
(Nobel Prize in Chemistry 2019)

https://www.nobelprize.org/prizes/lists/all-nobel-prizes/

Examples of Japanese research infrastructure and research environment

NanoTerasu（3 GeV Synchrotron Radiation Facility in Japan）



Copyright Kamioka Observatory, ICRR (Institute for Cosmic Ray Research), The University of Tokyo

The Institute of Transformative Bio-Molecules (ITbM)

J-RISE Initiative

(Japan Research & Innovation for Scientific Excellence)

○ Researchers, if you are interested in enriching your life as well as your research, Japan is the ideal place to make that a reality.

○ Japan has many attractions that support diverse lifestyles.
- ➢ Rich natural environment of Japan such as hot springs, and food culture
- ➢ Efficient transportation infrastructure including the bullet train
- ➢ Living in a safe and secure society

○ Life in Japan will meet the expectations of researchers who wish to enhance the quality of their lives while deepening their research.

For more information on the Initiative, various grant programs, and job opportunities for researchers,

please visit the **J-RISE Website**

https://pitmc.go.jp

Information on this initiative will be updated as it becomes available. Please check our website for the latest information.