Outline of 2026 White Paper on Science, Technology and Innovation (Annual report on promotion of science, technology and innovation creation in FY2025)
(Provisional Translation)

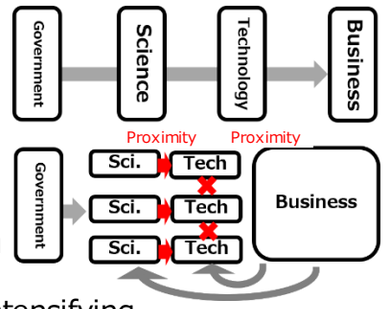
- The white paper is an annual report on measures implemented by the Government of Japan to promote science, technology and innovation in accordance with the Basic Act on Science, Technology and Innovation.
- It consists of two parts: **Part 1: Highlight topics for the respective fiscal year** (as Special Feature) **and Part 2: Annual report** (as per previous fiscal year)

- This year marks the first year of the 7th Basic Plan. The Special Feature for 2026 outlines the direction of science, technology, and innovation policy envisioned under the plan, using "**proximity between science and business**" as a key perspective, in addition to incorporating interviews with Nobel Prize laureates and others.

【Special Feature】 Science and Innovation Paving the Way for Our Nation's Future

Chapter 1 Nobel Prize-Winning Research in 2025 and Initiatives Toward Its Societal Implementation

Proximity between Science and Business



- The expansion of public and private investment in science has accelerated proximity between science and business. A paradigm in which research and development are conducted in parallel—from basic research through to commercialization and societal application—is becoming predominant, thereby increasing the intrinsic importance of basic research itself.
- Amid growing uncertainty in the international order and intensifying competition in research and development, outstanding scientific capabilities —combining strategic foresight attuned to a changing world with the diversity required to address an uncertain future—are indispensable to ensuring Japan's future autonomy and indispensability and creating promising growth industries.

The Creation of Knowledge Leading to Nobel Prizes and Innovation

Examples of 2025 Nobel Prize laureates are presented.

Prof. Shimon Sakaguchi

1979 (age 28) Initiated research on regulatory T cells

1995 (age 44) Discovered regulatory T cells

2003 (age 52) Identified the gene responsible for regulating regulatory T cells

2016 (age 65) Founded the startup company RegCell Inc.

2025 (age 74) Awarded the Nobel Prize in Physiology or Medicine

Prof. Susumu Kitagawa

1990 (age 39) Began research on porous materials

1997年 (age 46) First synthesis of gas-adsorbing porous coordination polymers

2013 (age 62) Appointed Director of the Institute for Integrated Cell-Material Sciences at Kyoto University

2015 (age 64) Founded the startup company Atomis Inc.

2025 (age 74) Awarded the Nobel Prize in Chemistry

- As results may take decades, **support for diverse research, including basic research**, is essential.
- Knowledge generated through basic research is delivered to society as products and services through **industry collaboration**, technology transfer via Technology Licensing Organizations (**TLOs)**, and startup creation.
- The government supports the application of basic research and will further strengthen such efforts under the 7th Basic Plan.

(Special Column) Science–Business Interface: Views from Nobel Laureates and Entrepreneurs

- Interviews with Nobel laureates and startups applying their research (RegCell, Atomis).
- The column features motivations for outstanding research, triggers and challenges for startup business based on research achievement, insights on proximity between, and messages for future entrepreneurs.

RegCell

atomis

Chapter 2 The Vision for Science, Technology and Innovation Policy Under the 7th Basic Plan

Trends in Science, Technology and Innovation Policy

- Significant changes in the global competitive landscape due to the three major trends below, in addition to proximity between science and business.
  ① Intensifying international competition over **disruptive technologies**
  ② Integration of Science and technology policies with **"national security"**
  ③ Paradigm shift in scientific research driven by AI **(AI for Science)**
- Transformation of science, technology, and innovation policy based on the **six pillars identified** as priority areas in the 7th Basic Plan.
  ① **Revitalization of Science as the Foundation of Knowledge** : Fundamental Enhancement of Research Capacity in pursuit of Strengthening Basic Research Capabilities
  ② **Strategic Prioritization of Technology Fields** : Targeted Allocation of Policy Resources to Key Technology Areas
  ③ **Harmonized Integration of S&T and National Security** : R&D and Societal Implementation of Dual-Use Technologies
  ④ **Enhancement of Innovation Ecosystems Connecting Industry, Academia, and Government** : Creating New Industries Based on New "Knowledge" and Solving Global/Regional Challenges
  ⑤ **Promotion of Strategic S&T Diplomacy**: Realizing National Interests by Diplomacy Utilizing Science and Technology, and by Enhancing Scientific and Technological Capabilities through Diplomacy.
  ⑥ **Reform of Promotion Systems and Governance** : Setting the goals for R&D investment at 60 trillion yen for the government and 180 trillion yen for the public and private sectors; securing basic expenses to simultaneously reform the university system and strengthen the function of the Council for Science and Technology Innovation (CSTI).

Strengthening Basic Research Capabilities for the Fundamental Enhancement of Knowledge

- Focus on **reforming research behavior, implementing reforms aimed at establishing a group of world-leading research universities, fundamentally expanding investment in universities and national research institutes,** and reflecting past research achievements which have been supported by the dedicated efforts of individual researchers.
- Sharing case studies from the Universities for **International Research Excellence, Program for Forming Japan's Peak Research Universities (J-PEAKS),** and **Empowering Research Platform for Outstanding Creativity & Harmonization (EPOCH)** as leading examples.

New Innovation Policies in the Era of "Proximity between Science and Business"

- Identifying 17 key technology areas to further advance public-private investments in science and technology fields that will serve as the seeds for the next generation of industries from the perspective of economic growth and national security.
- Creating an innovation ecosystem that connects industry, academia, and government including the establishment of globally competitive innovation hubs ; creating a startup ecosystem; promoting regional innovation and strategies for intellectual property and standards; and building on these efforts. Building on these efforts under the Basic Plan, we aim to realize "a new kind of technology-driven nation" that forms the foundation of a "strong economy."