Innovator Japan

～ Japan's new science and technology strategy～

Iwao Matsuda
Minister of State for Science and Technology Policy
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The Basics of Japan's Science and Technology Policy

The Council for Science and Technology Policy Members (Meets monthly)

	Name	Position, title, etc.
Cabinet Members	Junichiro Koizumi	Prime Minister
	Shinzo Abe	Chief Cabinet Secretary
	Iwao Matsuda	Minister of State for Science and Technology Policy
	Heizo Takenaka	Minister for Internal Affairs and Communications
	Sadakazu Tanigaki	Minister of Finance
	Kenji Kosaka	Minister of Education, Culture, Sports, Science and Technology
	Toshihiro Nikai	Minister of Economy, Trade and Industry
Executive Members	Hiroyuki Abe	Full-time member (Professor Emeritus, Tohoku University)
	Taizo Yakushiji	Full-time member (Visiting Professor, Keio University)
	Tadamitsu Kishimoto	Full-time member (Visiting Professor, Osaka University)
	Ayao Tsuge	Full-time member (Former Representative Director & Managing Director, Mitsubishi Heavy Industries, Ltd.)
	Reiko Kuroda	Professor, the University of Tokyo
	Etsuhiko Shoyama	President, Chief Executive Officer and Director of Hitachi, Ltd.
	Yuko Harayama	Professor, Graduate School of Engineering, Tohoku University
Head of Related Organization	Kiyoshi Kurokawa	President of Science Council of Japan

Major Events in Science and Technology Administration

- **1995** Science and Technology Basic Law enacted
- **1996–2000** 1st Science and Technology Basic Plan
- **2001** Cabinet Office and Council for Science and Technology Policy inaugurated
- **2001–2005** 2nd Science and Technology Basic Plan
- **2006–2010** 3rd Science and Technology Basic Plan

The Japanese Government's Stance Toward Science and Technology

"Without the promotion of science and technology, the nation will not develop. With the aim of realizing Japan as a "nation built on scientific and technological creativity," the Government will formulate its third-term basic plan for science and technology and will strategically prioritize support for research and development by increasing the budget for science and technology against the backdrop of a decrease in overall national expenditure."

~ Prime Minister Junichiro Koizumi 's General Policy Speech on January 20, 2006 ~

Building an advanced science- and technology-based nation

1st Basic Plan (FY 1996-2000)

●**Increasing R&D budget**

17 trillion yen (actual expenditure 17.6 trillion).

●**Structuring a new R&D system**

Support plan for 10,000 post-doctoral fellows, etc.

2nd Basic Plan (FY 2001-2005)

●**Key policies**

- **Prioritization of R&D on national/social subjects**
- **Doubling of competitive research funds**

・Total budget : **24 trillion yen (actual expenditure 21.1 trillion)**

3rd Basic Plan (FY 2006-2010)

●**Key policies**

- ✓**How to nurture creative S&T human resources?**
- ✓**Further reform of S&T systems, leading to higher performance,**
- ✓**Strategic prioritization of R&D themes.**

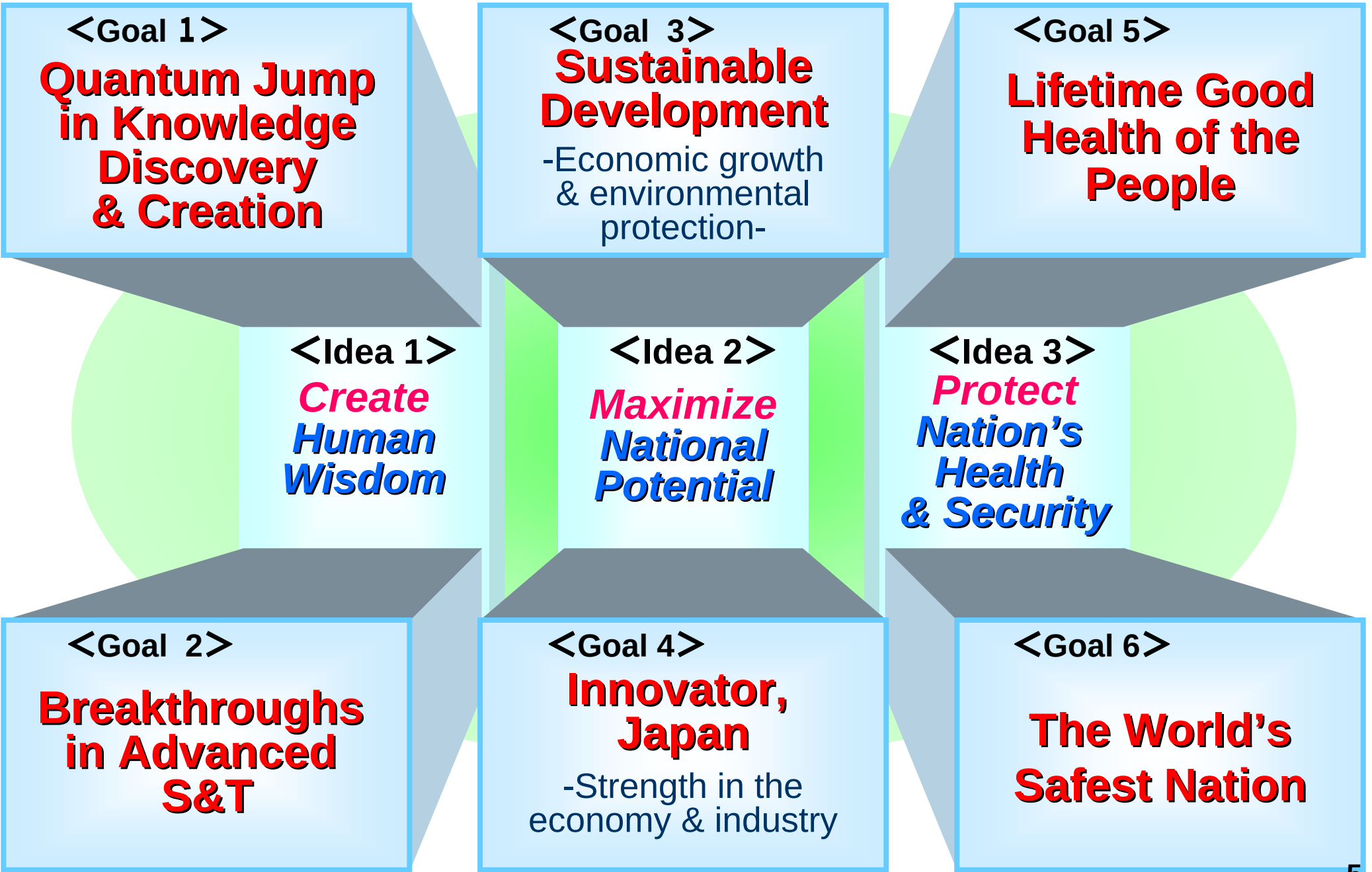
Basic Ideas (1)

【Basic stance】

① S&T should be supported by the public and return benefit to society.

② Fostering human resources and creating competitive research environments.

Science and Technology Policy Goals



Basic Ideas (2)

【Total amount of investment】

- **25 trillion yen (208 billion dollars) for 5 years.**
- **Ensuring steady growth of S&T investments considering severe fiscal conditions.**
- **Maximizing outputs by setting outcome targets for R&D, improving evaluation system, eliminating overlapping distribution of research funds, etc.**

Strategic priority setting in S&T (1)

Basic Research

~ Steady promotion ~

Policy mission-oriented R&D

Further Prioritization

4 priority promotion areas

(Life science, IT, Environmental science、Nanotech & materials)

4 promotion areas

(Energy, MONODZUKURI-tech、Social infrastructure、Frontier)

Promotion Strategies for R&D Areas

- **Background of the present situation**
- **Setting goals**
- **Important R&D themes**
- **Strategic S&T priorities**
- **Various measures for promoting S&T**

Strategic priority setting in S&T (2)

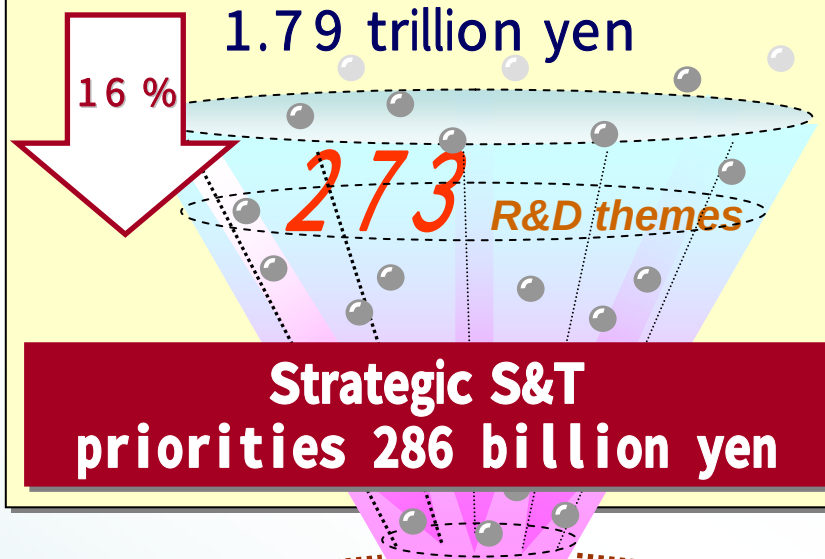
Total S&D budget for FY2006 3.57 trillion yen

Basic research and university education

1.42 trillion yen

Policy mission-oriented R&D

1.79 trillion yen



S&T systems reform and others 365 billion yen

62 Strategic S&T priorities were selected

Strategic priority setting in S&T (3)

Life science	**Connecting** basic research and the development of new drugs and other clinical technologies
IT	Winning international competition in **next generation-super computers** and in the IT industry
Environment	Taking **international leadership** for overcoming global warming
Nano & materials	**Making breakthroughs with innovative materials**
Energy	**Breaking the dependency on oil** in transportation services
MONODZUKURI	**Further strengthening Japan's MONODZUKURI-tech**
Social infrastructure	**Minimizing damages** in case of a catastrophic disaster
Frontier	**Transportation systems** for outer-space and deep-sea utilization

Bioinformatics

Nano -device sensors

Energy-saving MONODZUKURI-tech

** Other various integrated areas of S&T exist*

and others…

Systems reforms for upgrading S&T human resources

- **Encourage young researchers.**
- **Expand opportunities for female researchers.**
  (Setting a target of 25 % share)
- **Attract foreign researchers to Japan.**
- **New opportunities for excellent senior researchers.**
- **Make research environments more competitive.**
- **Better education for our children for developing diverse talents that can respond to social needs.**

Accelerating Innovation Is the Key to Growth

○ **Revolutionary changes in our society.**
○ **Various *innovations* have emerged in Japan.**
○ **Need for change in our strategy for R&D.**

/*Examples of Innovations Originating in Japan*/

・**Photocatalysts** (1967: Professor Emeritus Fujishima, University of Tokyo)
・**Electrically conductive plastics** (1967: Professor Emeritus Shirakawa, University of Tsukuba; 2000: Nobel Prize)
・**Chiral (enantiomer) synthesis technique** (1976: Special Visiting Professor Noyori, Nagoya University; 2001: Nobel Prize)
・**Perpendicular magnetic recording** (1975: Professor Emeritus Iwasaki, Tohoku University, Professor Nakamura, Tohoku University, and Assistant Professor Yamaguchi, Tohoku University)

Measures for Accelerating the Innovation Process

1. ***Attract excellent researchers*** **and reform research organizations.**
2. **Reform *research funding systems.***
3. **Strengthen technology dissemination and *utilization* policies.**
4. **Promote *industry-academia collaborations.***

My Final Message

Innovators of the world, come together in Japan!

Japan will provide the greatest environment for the creation of tomorrow's S&T.