SCIENCE AND TECHNOLOGY POLICY OF JAPAN AND TECHNOLOGY FORESIGHT

Council for Science and Technology Policy,
Cabinet Office

HIROO IMURA

COUNCIL FOR SCIENCE AND TECHNOLOGY IN CABINET OFFICE (1959～2000)

Policies for Promoting S&T were Decided by Foreseeing about 10 years

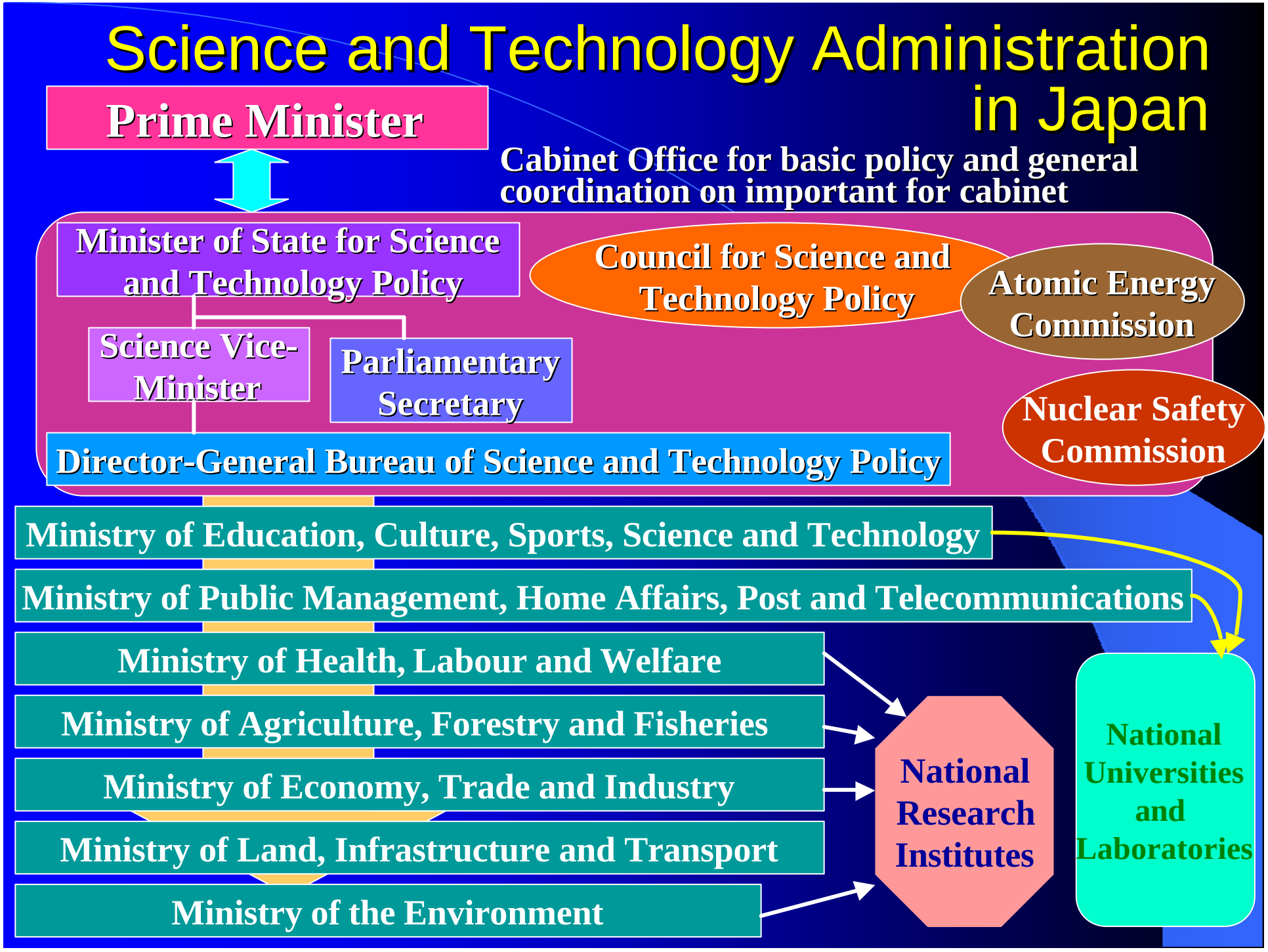
- First 1960
- Second 1972
- Third 1984
- Fourth 1992 for the Coming Century

TECHNOLOGY FORECAST (FORESIGHT)

- First Technology Forecast Based on a Delphi Questinnaire Method in 1970
- Second to the 7th Once Every 5 years

SCIENCE AND TECHNOLOGY POLICY OF JAPAN IN RECENT YEARS

- 1995 Science and Technology Basic Act
- 1996 Science and Technology Basic Plan (1996~2000)
- 2001 Council for Science and Technology Policy
- 2001 Science and Technology Basic Plan (2001~2005)


Science and Technology Administration in Japan
Prime Minister
Cabinet Office for basic policy and general coordination on important for cabinet
Minister of State for Science and Technology Policy
Council for Science and Technology Policy
Atomic Energy Commission
Science Vice-Minister
Parliamentary Secretary
Nuclear Safety Commission
Director-General Bureau of Science and Technology Policy
Ministry of Education, Culture, Sports, Science and Technology
Ministry of Public Management, Home Affairs, Post and Telecommunications
Ministry of Health, Labour and Welfare
Ministry of Agriculture, Forestry and Fisheries
Ministry of Economy, Trade and Industry
Ministry of Land, Infrastructure and Transport
Ministry of the Environment
National Research Institutes
National Universities and Laboratories

SCIENCE AND TECHNOLOGY BASIC PLAN (for 2001-2005)

Council for Science and Technology Policy

Strategic Promotion of S&T Research

Basic Research

Project-Oriented Research

(Life-Science)

(Information Technology & Communication)

(Environment)

(Nanotechnology and Materials)

Emerging Fields

Reform of R&D System

Increase Competitiveness

(Doubling Competitive Grants)

(Grants for Young Researchers)

(Increased Mobility of Researchers)

Improve Research Facilities

Reform Evaluation System

Reform Science Education

Reinforce University-Business Cooperation

Construct Channels with Society

ACHIEVEMENTS OF CSTP IN THE PAST YEAR

- **Science and Technology Basic Plan (2001-5)**
  - Major priority research projects in each area
- **Establishing Systems of S&T Budgetary Allocation**
- **Reform of R&D System**
  - Reform of funding system
  - Increasing mobility of researchers
  - Increasing grants for young investigators
  - Improving research facilities
- **Revision of General Code of R&D Assessment**
- **Facilitating Business-University-Government Cooperation and Promoting Regional R&D Activities**

WHAT WE SHOULD DO FURTHER

- Reform of Competitive Research Grant Systems
- Facilitating Research in Newly Emerging Areas
- Fostering Excellent Workforce, Especially in Emerging Areas
- Reform of Universities to Meet the Change of S&T

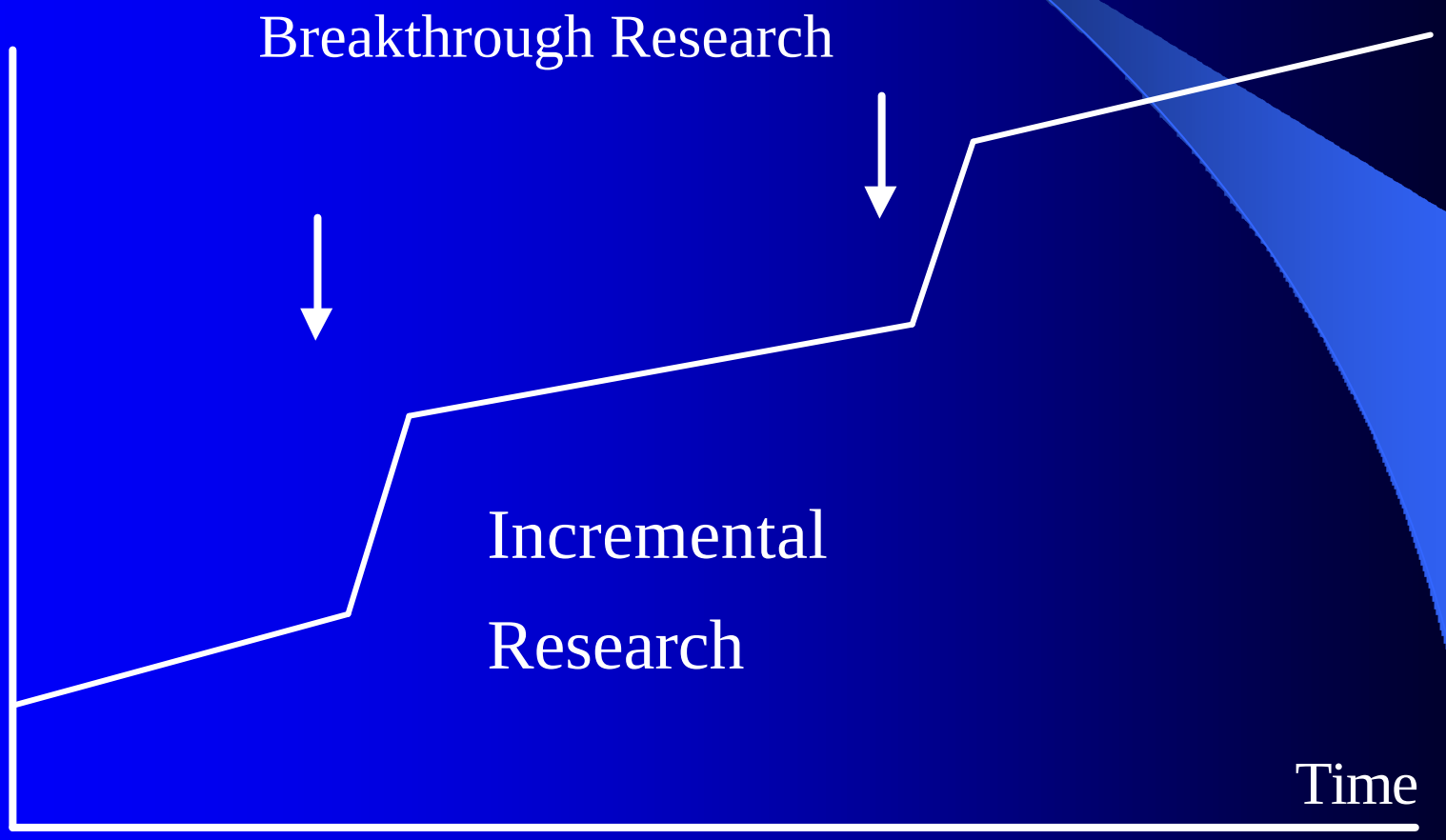
SCIENCE AND TECHNOLOGY FORESIGHT

develops visions of the future to guide decision-making, through providing knowledge and ideas about future possibilities, needs and requirements.

DIFFICULTIES OF S&T FORESIGHT

- Unexpected Breakthrough
  - Frequently Serendipitous Discoveries
- Emerging, Interdisciplinary Areas
  - Lack of Specialists
- Change of R&D Systems
  - International Consortium
  - Ventures

PROGRESS OF SCIENCE AND TYPE OF RESEARCH



HUMAN GENOME RESEARCH

- Bioethics Meeting of G8 Countries on Human Gene (1988)

  Sequencing of Human Genome by 2015

  Understanding of Function of Genes by 2100

  (by Gilbert)
- Human Genome Sequence

  Draft 2001

  Final 2003
- Progress of Technologies
- Venture (Celera Co.)

CONCLUSION

Despite difficulties, the S&T foresight is of great importance for policy decision in order to find emerging areas and to foster young people in proper disciplines. Methods of foresight must be studied further.