On the Science and Technology Policy in Japan

The 7th Int. Symp. Fusion Nuclear Technology
May 23, 2005

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1. Outline of S&T Policy

- **S&T Basic Law (95)**
- **S&T Basic Plan (1st, 96 - 00)**
  17 trillion yen for 5 years
- **CST→CSTP (01)**
- **S&T Basic Plan (2nd,01- 05)**
  24 trillion yen for 5 years

(under the assumption of nominal growth rate of GDP being 3.5 % during the period)

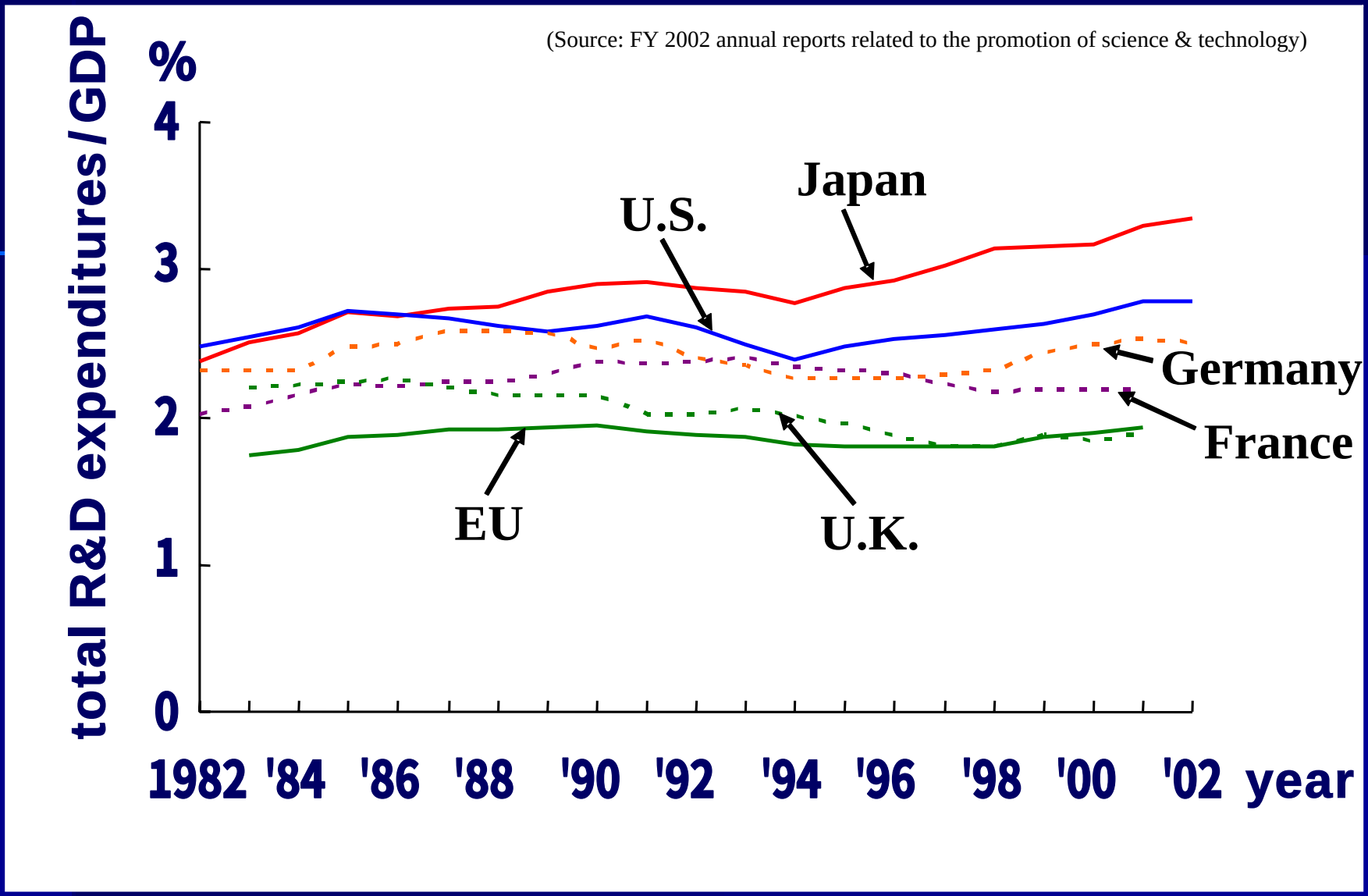
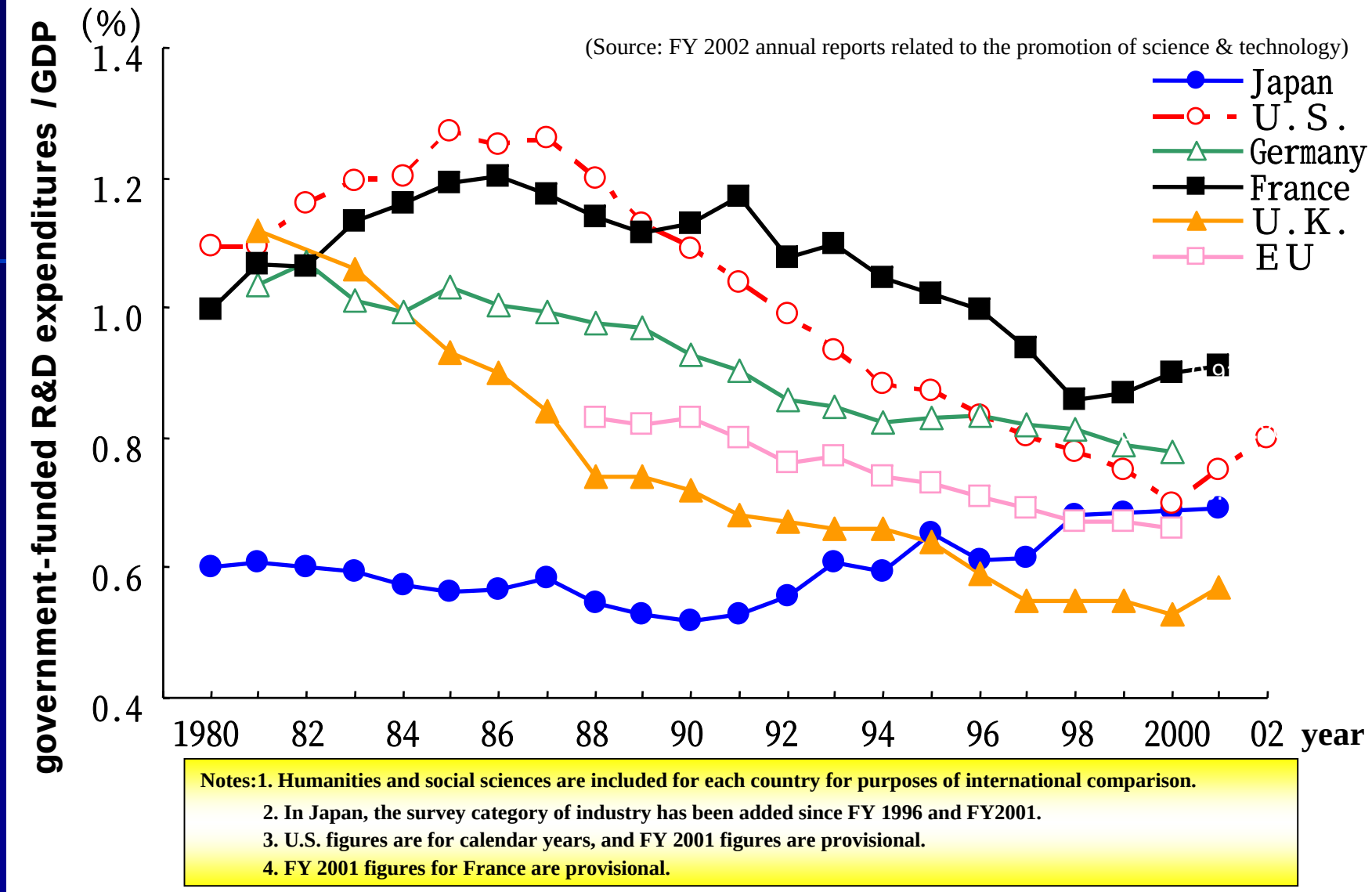


Fig.1 Changes in total R&D expenditures in major countries as a percentage of GDP



Notes:1. Humanities and social sciences are included for each country for purposes of international comparison.
2. In Japan, the survey category of industry has been added since FY 1996 and FY2001.
3. U.S. figures are for calendar years, and FY 2001 figures are provisional.
4. FY 2001 figures for France are provisional.

Fig.2 Changes in government-funded R&D expenditures in major countries as a percentage of GDP

2. Outline of the CSTP

Table 1 Membership(1)

Chairperson	Mr. Junichiro KOIZUMI	Prime Minister
Cabinet Members	Mr. Yasufumi TANAHASHI	Minister of State for Science and Technology Policy
	Mr. Hiroyuki HOSODA	Chief Cabinet Secretary
	Mr. Taro ASO	Minister of Internal Affairs and Communications
	Mr. Sadakazu TANIGAKI	Minister of Finance
	Mr. Nariaki NAKAYAMA	Minister of Education, Culture, Sports, Science and Technology
	Mr. Shoichi NAKAGAWA	Minister of Economy,Trade and Industry

Table 1 Membership(2)

Executive Members	Dr. Hiroyuki ABÉ (Full-time)	Professor Emeritus, Tohoku University
	Dr. Taizo YAKUSHIJI (Full-time)	Visiting Professor, Keio University
	Dr. Tadamitsu KISHIMOTO (Full-time)	Visiting Professor, Osaka University
	Dr. Ayao TSUGE (Full-time)	Former Representative Director & Managing Director, Mitsubishi Heavy Industries, Ltd
	Dr. Reiko KURODA	Professor, the University of Tokyo
	Dr. Kazuko MATSUMOTO	Professor, Waseda University
	Mr. Hiroyuki YOSHINO	Director and Adviser, Honda Motor Co., Ltd.
Sci.Council	Dr. Kiyoshi KUROKAWA	President of Science Council of Japan

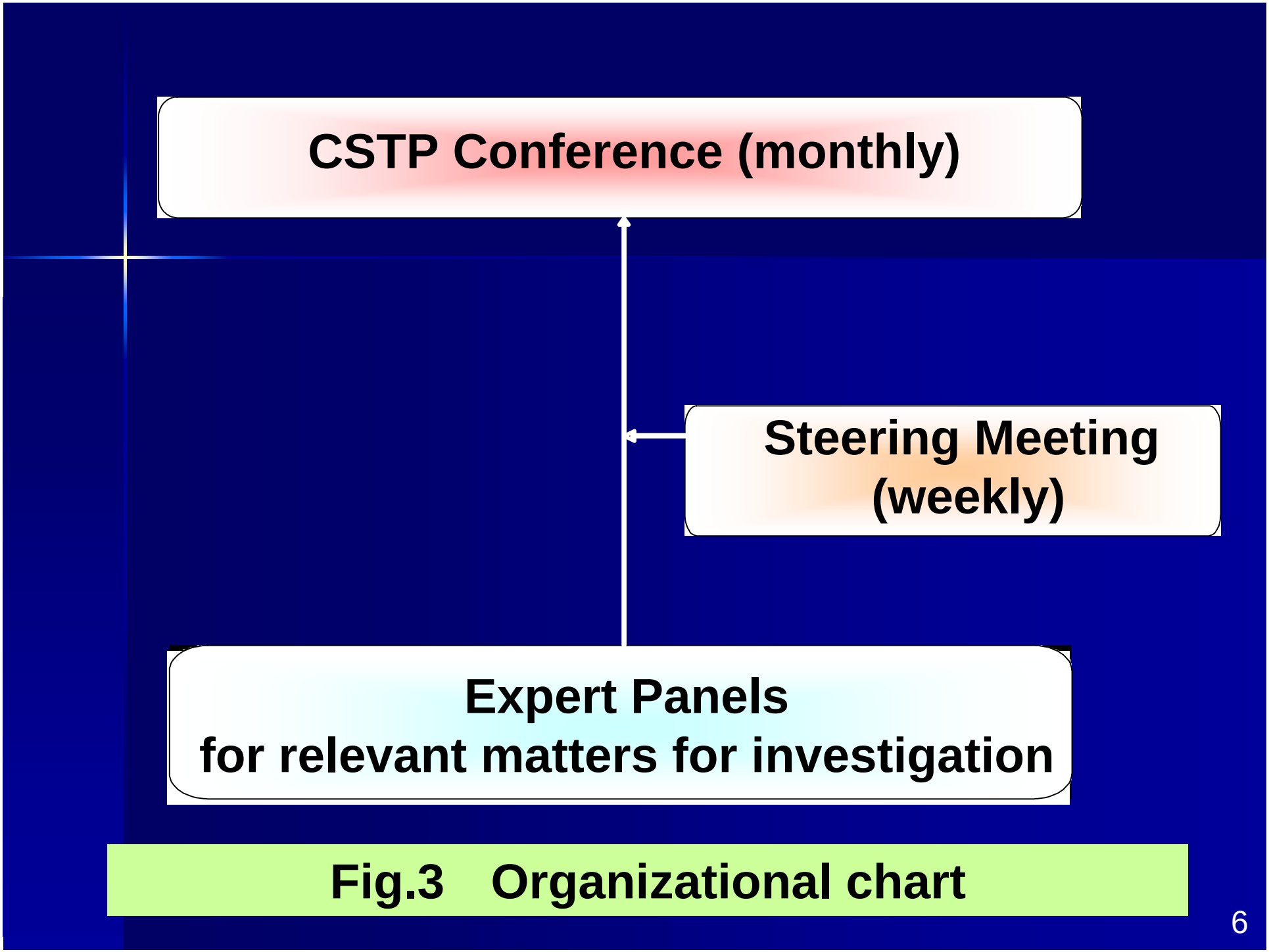


Fig.3　Organizational chart

3. Overview of S&T Basic Plan (2nd,01-05)

(1) Basic Principles

(a) Creation of new knowledge - As a country that contributes to the world by creation and utilization of knowledge

(b) Creation of vital energy through knowledge - As a country that is internationally competitive and capable of sustainable growth

(c) Creation of a prosperous society through knowledge - As a country where people can live safe, peace and highly quality lives

(2) Strategic Priority

(1) Promotion of Basic Researches

(2) Prioritization of R&D

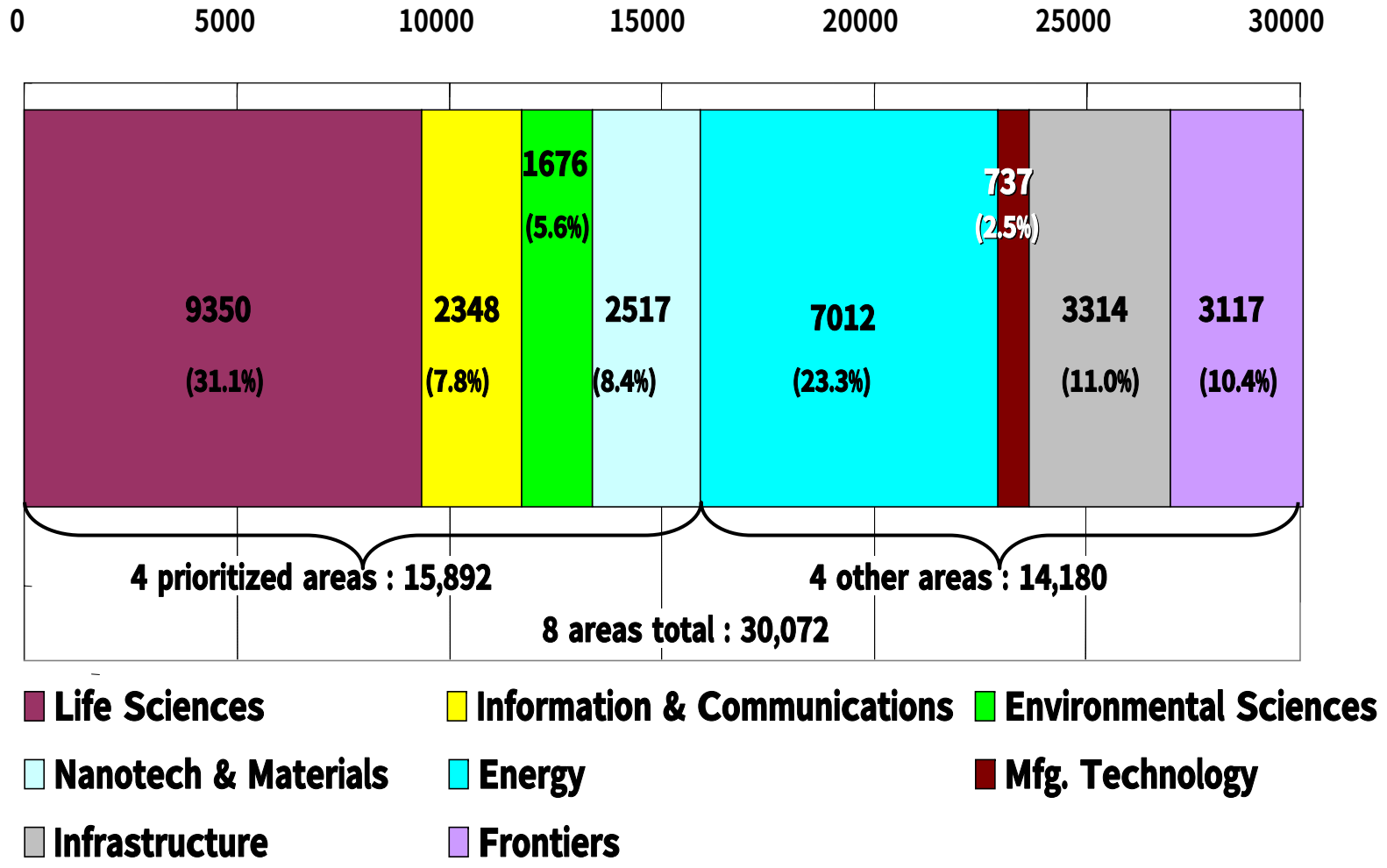
4 areas

- Life sciences
- Information and communications
- Environmental sciences
- Nanotechnology and materials sciences

Other 4 areas

- Energy
- Manufacturing technology
- Infrastructure
- Frontiers- outer space and the oceans

(100 million JPY)



※University budget (ca. 120 billion JPN) share by areas are estimated in proportion to the distribution of Grants-in-Aid for Scientific Research(FY2003).

Fig.4 FY2004 S&T budget share by areas (including University Budget)

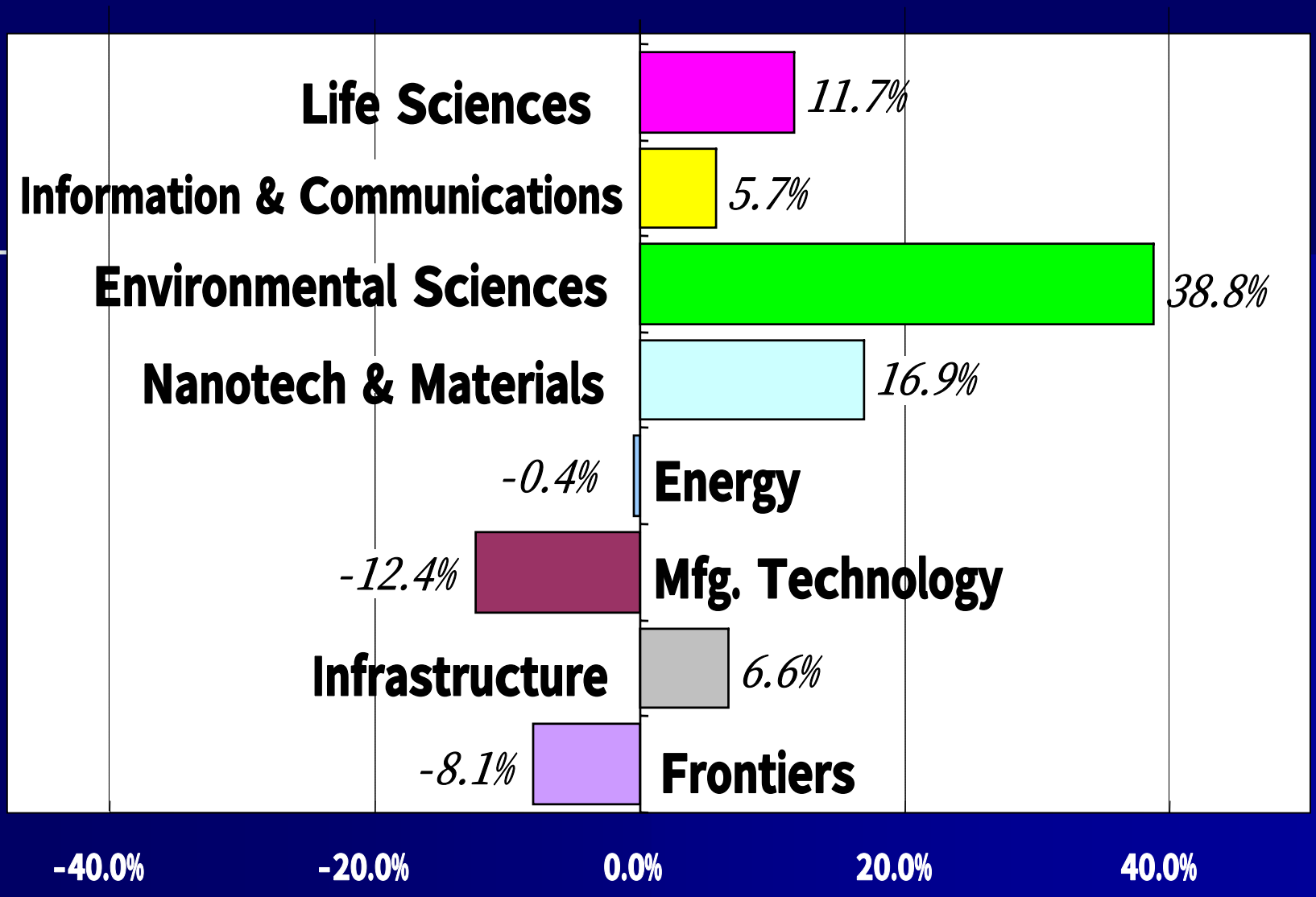


Fig.5 Changes in S&T budget (by areas)

(FY 2004 over FY 2001)

(Cabinet Office)

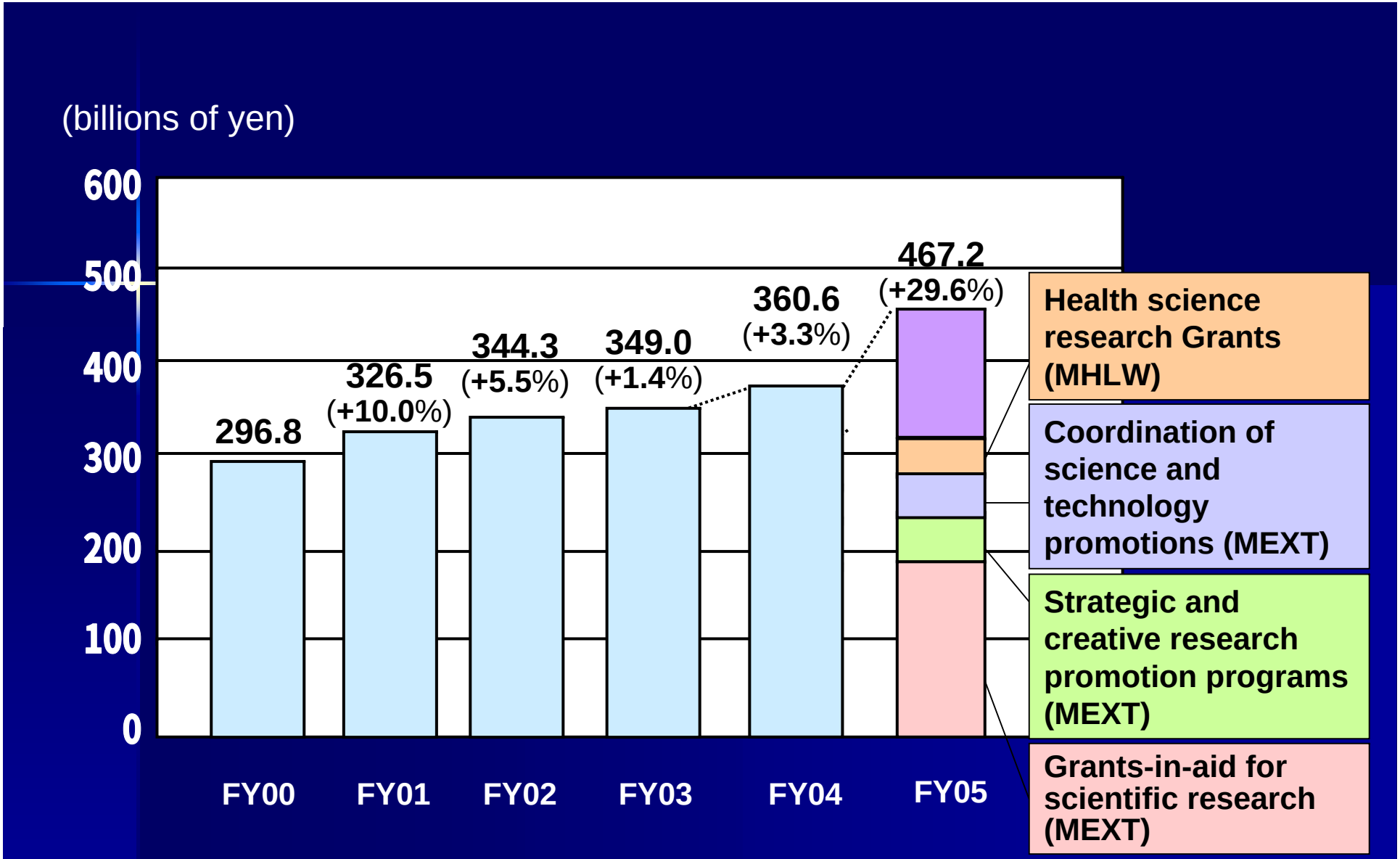


Fig.6 Competitive research funding

(3) Cases of S&T Budgeting

(a) Total amount of R&D expenditure

FY04:¥3,608 billion (US$ 33.4 billion)

0.3% increase

FY05:¥3,579 billion (US$ 33.1 billion)

0.8% decrease

(b) R&D expenditure in general account

FY04:¥1,284 billion (US$ 11.9 billion)

4.4% increase

FY05:¥1,317 billion (US$ 12.2 billion)

2.6% increase

1$=¥108

(4) S&T System Reform

(a) Competitive research funding system reform

(b) Promotion of business-academia-government collaboration

(c) Creation and promotion of R&D-oriented ventures

(d) Protection and utilization of intellectual property

(e) Regional promotion of S&T

(f) University Reforms (04~)

Restrictions on management

○National University
Restrictions regarding organizations, accounting, property, personnel, etc.

○Public University
Restrictions regarding organizations, accounting, property, personnel, etc.

○Private University
Regulations regarding organizational changes, etc.

◎National University Corporation Law (April, 2004 ～)
◎Local incorporated Administrative Agency Law (FY2004～)
◎Amendment to the School Education Law (FY2003, FY2004 ～)
◎Amendment to the Private Educational Corporation Law (FY2005～)

●Introduce new management system, including top-management, non-governmental personnel system

●Implement more flexible procedure for establishing universities and introduce third-party evaluations

●Improve management

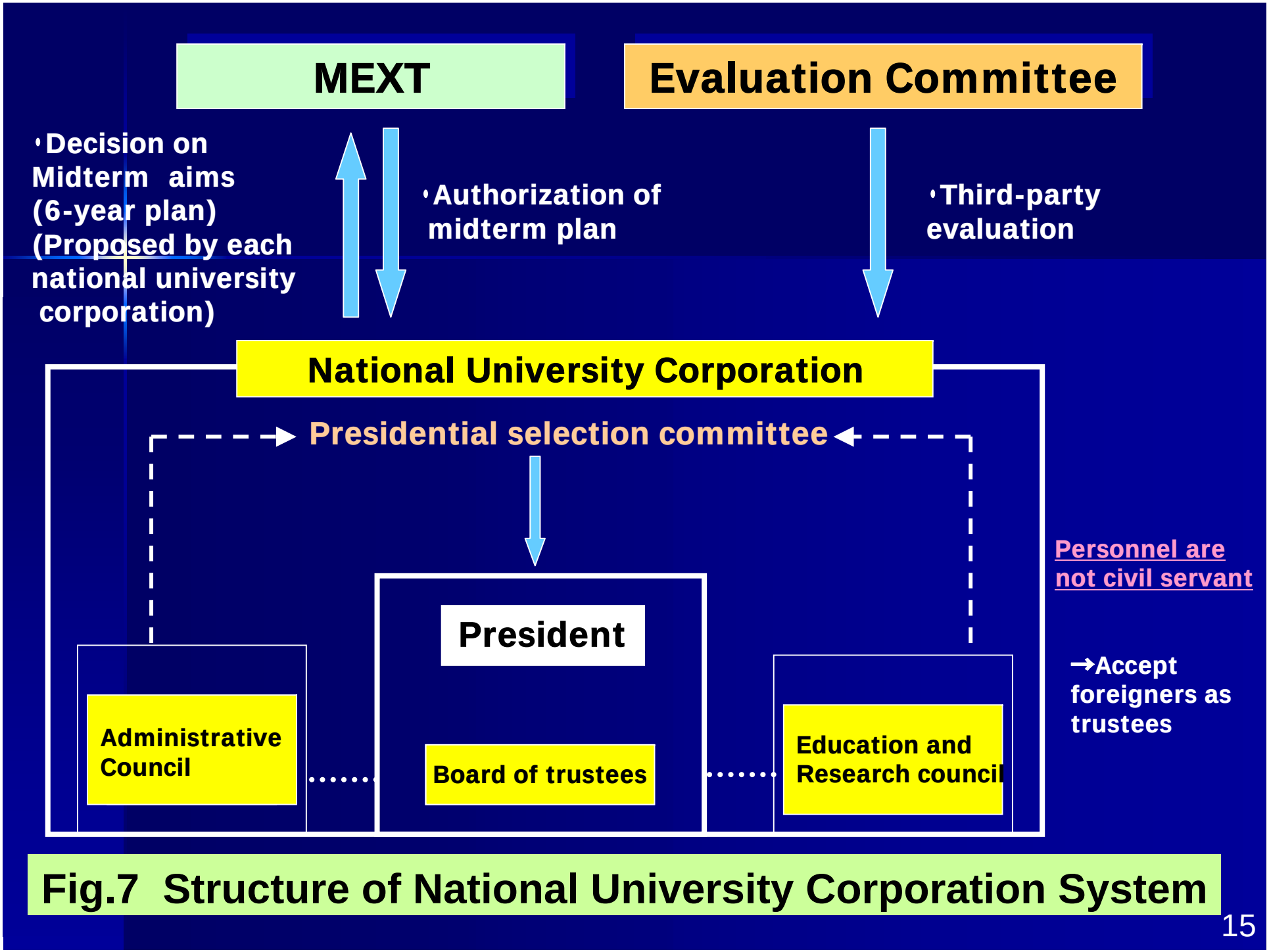


Fig.7 Structure of National University Corporation System

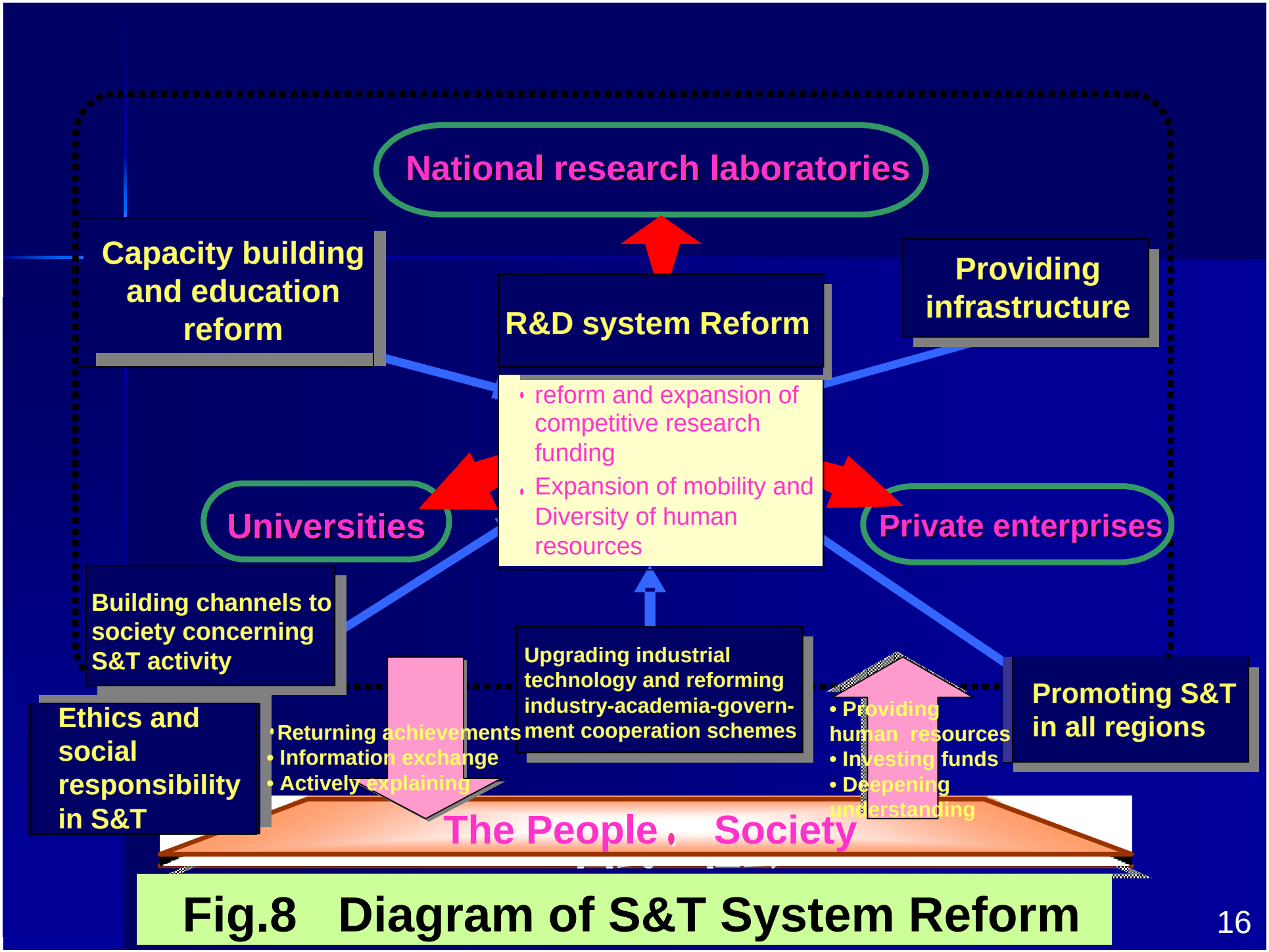


Fig.8 Diagram of S&T System Reform

(5) Relevant Critical Policy Issues

(a) Promotion of biotechnology (BT) R&D

(b) Promotion of information and communications technology R&D

(c) Promotion of environmental sciences R&D

(d) Nanotechnology/materials R&D

(e) Compliance with bioethics

(f) Promotion of space development and utilization

(g) S&T promotional coordination expenditure

(h) Desired modality for the Science Council of Japan

(i) Others

(6) Development and retention of S&T-related personnel

(7) International relations

(8) Improvement of the relationship between S&T policy making and society

(9) R&D evaluation

4. Next-term S&T Policy

(a) Expansion of the government investment and progress in the strategic prioritization

(b) Effective use of S&T- related budget/human resources through system reforms

(c) Achievements in the 1st and 2nd terms of the S&T Basic Plan and the trend of S&T policy in Japan and abroad

(d) Preparation of the 3 rd S&T Basic Plan (06-10)

(1) Evaluation of the S&T Basic Plan and Foresight of S&T trend

1) Evaluation of the 1st S&T Basic Plan
2) Evaluation of the 2nd S&T Basic Plan
   ・3rd-year follow-up
3) S&T Foresight (by National Institute of S&T Policy)
   a. survey of rapid-developing research areas
   b. delphi survey
   c. survey of social/economic needs
   d. survey of the development scenario of notable S&T areas

(2) Preparation of the Third S&T Basic Plan

- **Discussion started last December at Expert Panel on Basic Policy under CSTP**
- **Discussion every month, properly reporting to CSTP, to draw up the new Plan by the end of 2005 (main discussion points as follows)**

S&T Policy, supported by People and Society, returns them its achievements

- philosophy and objectives of the Basic Plan
- further contribution to culture, economy and global environment
- new S&T strategy and its promotion measures
- direction of the S&T system reform
- roles played by the Government, research institutions, universities, public sectors, etc
- international development of S&T
- role of the CSTP and its ideal relation with scientist communities

(3) Changes in International Situation

(A) Great competitive era of the Knowledge

(B) World's common issues

a. increase of population except for industrialized countries
b. global environment
c. intellectual property rights and mal-distribution of wealth
d. S&T and military power
e. others

(4) Perspectives of S&T Policy

(A) Economic power / industrial competitiveness

(B) National security (in broader sense)

(C) Aged society with a declining birthrate

(D) Cooperation with foreign countries
(especially with Asian countries)

(E) Contribution to civil society
-citizen's choice, the role of academy/scientific community

(5) Capacity Building

(A) Edification (or stimulation) and atmosphere
- from small children to adults -

(B) Elementary and Secondary Education and sprits of criticism and self-determination
- free from dependency on others -

(C) Higher Education and the views of culture and history

(D) Making center of excellences in universities
a. further acceptance of exceptional researchers
b. acquiring excellent foreign professors

(6) Backbone of S&T Basic Policy

(A) Drawing Japan's Future

a. Rule of behavior of the Japanese (including dignity, ethics, etc.)

b. Identity of the Japanese

c. Ethos of the Japanese

- try to establish a, b, and c above being conscious of views of culture and history

(B) Five-year plan to carry out the longer-range objective

(C) Slogans easy to be understood