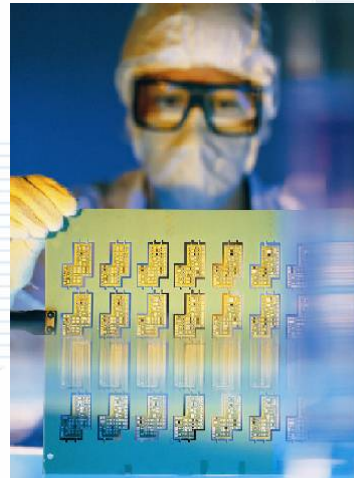
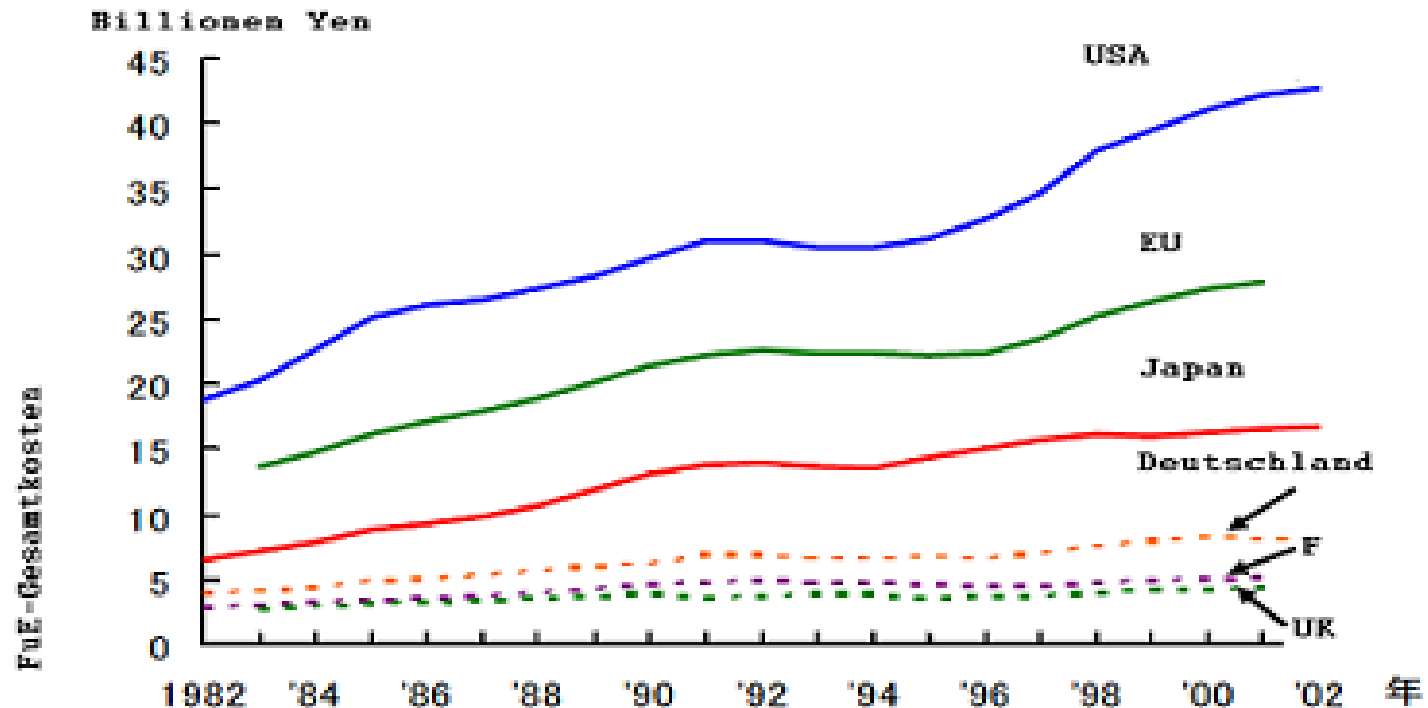


Forschungsförderung in Japan

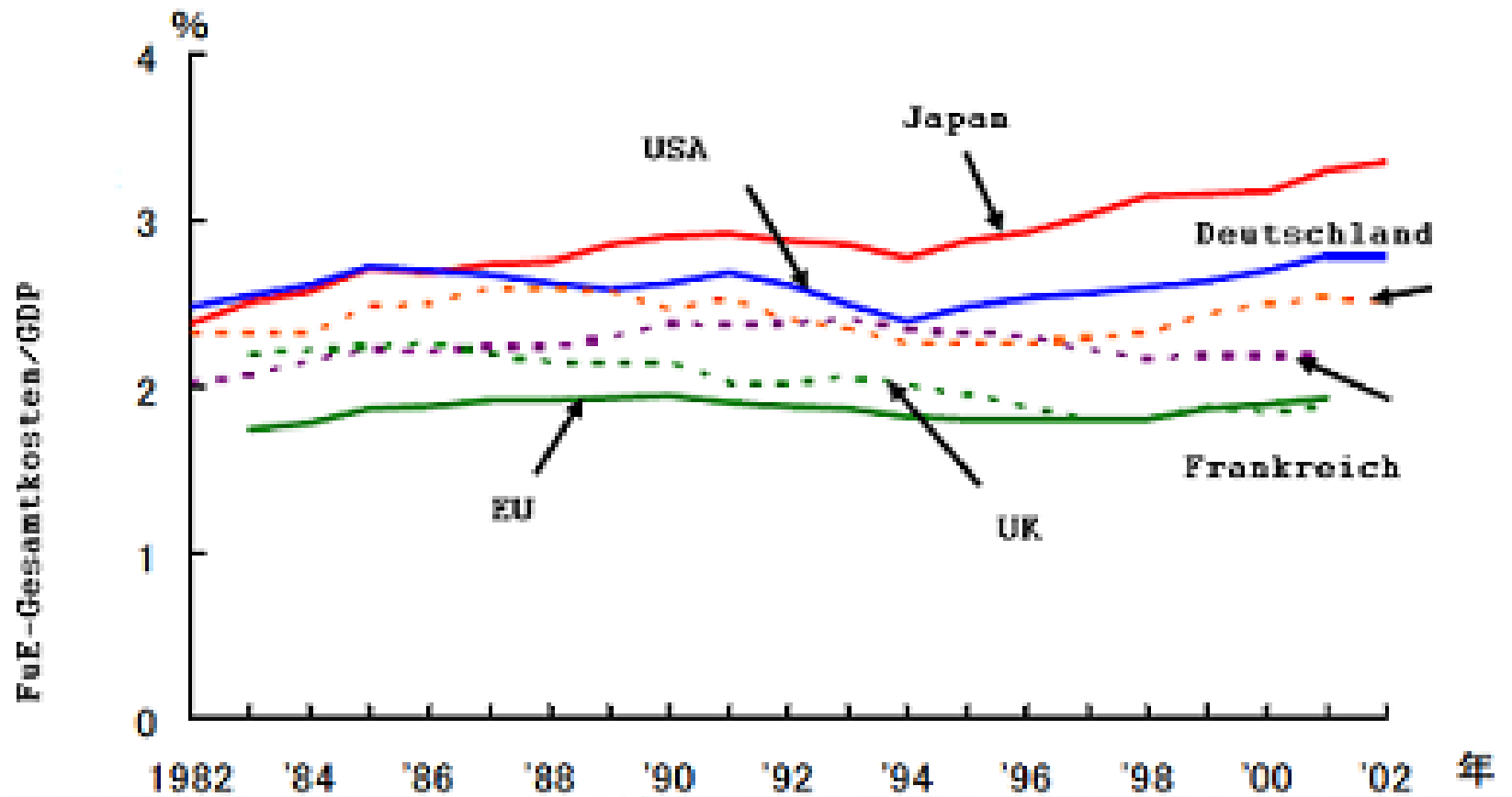
Dr. Marko Häckel



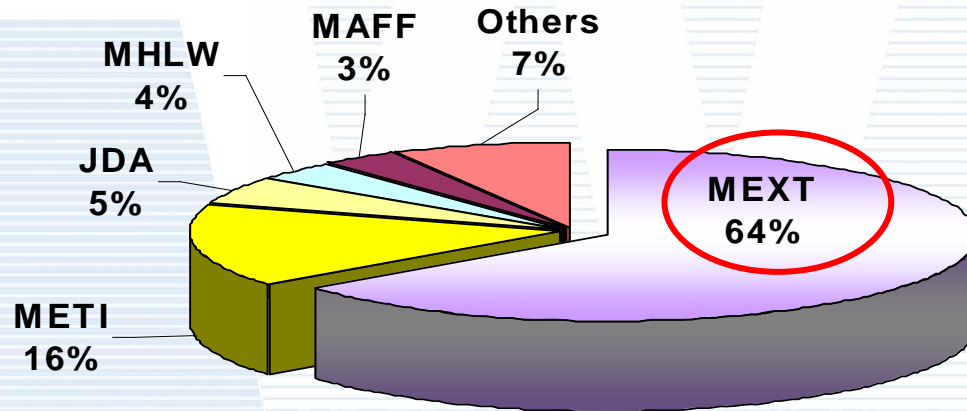
FuE-Aufwendungen (inkl. Industrie)



Forschungsintensität



S&T-Related Budget in FY2006



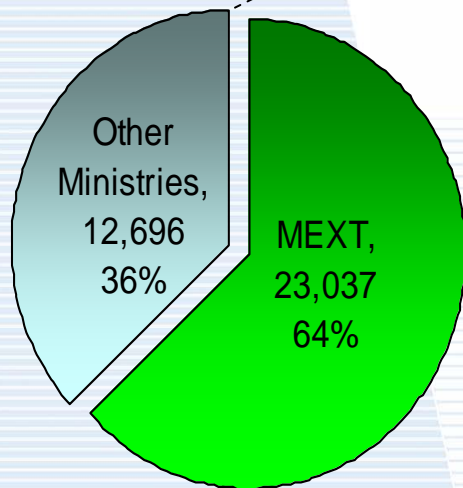
	Ministry of Education, Culture, Sports, Science and Technology (MEXT)
	Ministry of Economy, Trade and Industry (METI)
	Defense Agency (JDA)
	Ministry of Health, Labor and Welfare (MHLW)
	Ministry of Agriculture, Forestry and Fisheries (MAFF)
	Others

NOTE The exchange rate : 1 USD = 110 JPY

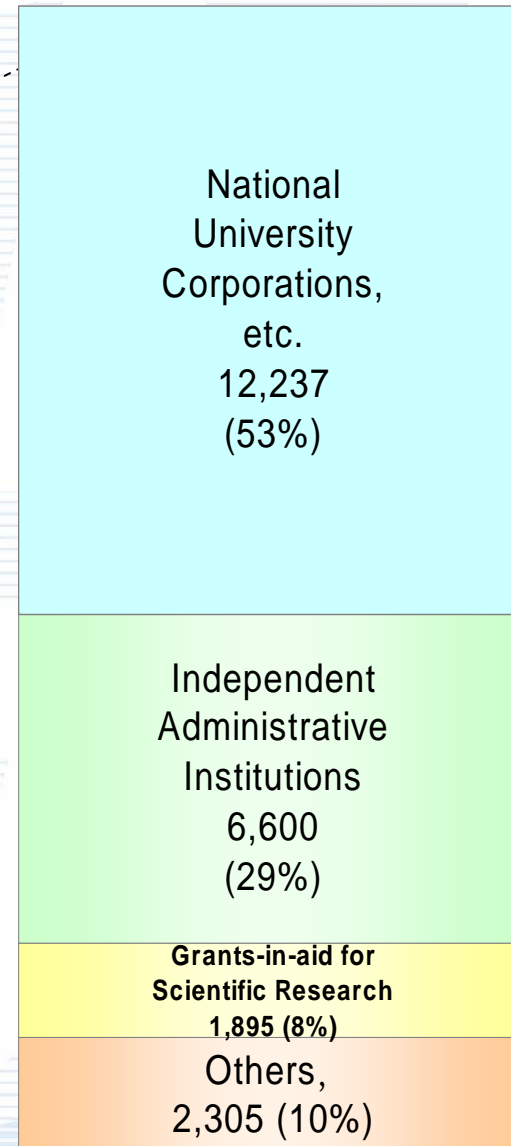
Ministry	S&T-Related Budget
	(tri JPY) (bln USD)
MEXT	2.30 (20.91)
METI	0.56 (5.09)
JDA	0.18 (1.64)
MHLW	0.13 (1.18)
MAFF	0.12 (1.09)
Others	0.28 (2.55)
Total	3.57 (32.45)

Breakdown of MEXT S&T-Related Budget

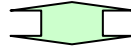
S&T-Related Budget in FY2006



(Unit: 100 million JPY)



Prime Minister



Cabinet Office

Council for Science and Technology Policy: CSTP

- Formation of Comprehensive Strategy
- Policy for Resource Allocation (Budget, Human Resources)
- Evaluation of National-level Projects

Minister of State for Science and Technology Policy

Atomic Energy
Commission

Nuclear Safety
Commission

Presenting Basic Policies /
Comprehensive Coordination

Ministry of Education, Culture, Sports, Science and Technology: MEXT

- Formulation and promotion of concrete plans for research and development
- Coordination of relevant ministries

Coordination

Related Ministries

Ministry of Internal Affairs
and Communications
Ministry of Agriculture,
Forestry and Fisheries
Ministry of Economy,
Trade and Industry
...etc.

Independent Administrative Institutions

Universities

Independent Administrative
Institutions

Reorganisation der Strukturen der japanischen Forschungspolitik

- Zusammenlegung des Bildungs- und Forschungsressorts
- Stärkung der Kompetenz des Kabinetts
- Staatsminister für Forschungs- und Technologiepolitik
- Council for Science and Technology Policy (CSTP)
- staatlichen Forschungseinrichtungen - größere Unabhängigkeit
- nationalen Universitäten - in die Selbstständigkeit

Reorganisation der Strukturen der japanischen Forschungspolitik

- 1995 The Science and Technology Basic Law
- 1996 The Science and Technology Basic Plan (1996~2000)
- 2001 The 2nd Science and Technology Basic Plan (2001~2005)
National Administrative Reform: CSTP, MEXT
- 2001 - 2005 National Research Institutes ➡ Independent
Administrative Institutes
- 2001 NIMS, NIED etc. 2003 RIKEN, JST etc. 2005 JAEA
- 2004 National University ➡ National University Corporation
- 2006 The 3rd Science and Technology Basic Plan (2006~2010)

III. The 3rd Science and Technology Basic Plan

Science and Technology Basic Law
(enacted in 1995)

1st Basic Plan (FY1996-2000)

Increase in governmental R&D expenditure

The total budget for governmental R&D expenditure exceeded 17 trillion yen.

Construction of new R&D system

- Increase in competitive research funds
- Support plan for 10,000 postdoctoral fellows (including Ph.D students)
- Promotion of industry-academia-government collaboration
- Implementation of evaluation systems

2nd Basic Plan (FY2001-2005)

Three basic ideas

- (i) Creation of wisdom
- (ii) Vitality from wisdom
- (iii) Sophisticated society by wisdom

Key policies

Strategic priority setting in S&T

- Promotion of basic research
- Prioritization of R&D on national/social subjects

S&T system reforms

- Doubling of competitive research funds
- Enhancement of industry-academia-government collaboration

Total budget : 24 trillion yen

3rd Basic Plan (FY2006-2010)

Review of the 1st and 2nd plans

- (i) The 1st and 2nd S&T Basic Plans have solidified the foundation of S&T in Japan.
- (ii) “Mega-competition for knowledge” that Japan faces involves not only the United States and Europe but also Asian nations such as South Korea and China.

Our decision for the future:
stronger emphasis on the
role of “Wisdom”

Highlight

- How to nurture creative S&T personnel?
- Further reform of S&T systems, leading to higher performance



Outline of the 3rd Basic Plan

Chap.1 Fundamental Concept

- Recent situation revolving around S&T
- Basic stance toward the 3rd plan
- Fundamental ideas and policy goals
- Total governmental R&D investment: 25 trillion yen (208 bill. dollar)

Chap.2 Strategic Priority Setting in S&T

- Prioritization of R&D for policy-oriented subjects
Primary prioritized areas; Life science, IT, Environmental sciences, Nano-tech. & materials
Secondary prioritized areas; Energy, MONODZUKURI tech., Infrastructure, Frontier (outer space & oceans)
- Promotion strategy for the prioritized areas

Chap.3 S&T system reforms

- Fostering S&T personnel and providing opportunities
- Progress in science and leading to innovation
- Upgrading infrastructures for S&T promotion
- Strategic commitment on international S&T activities

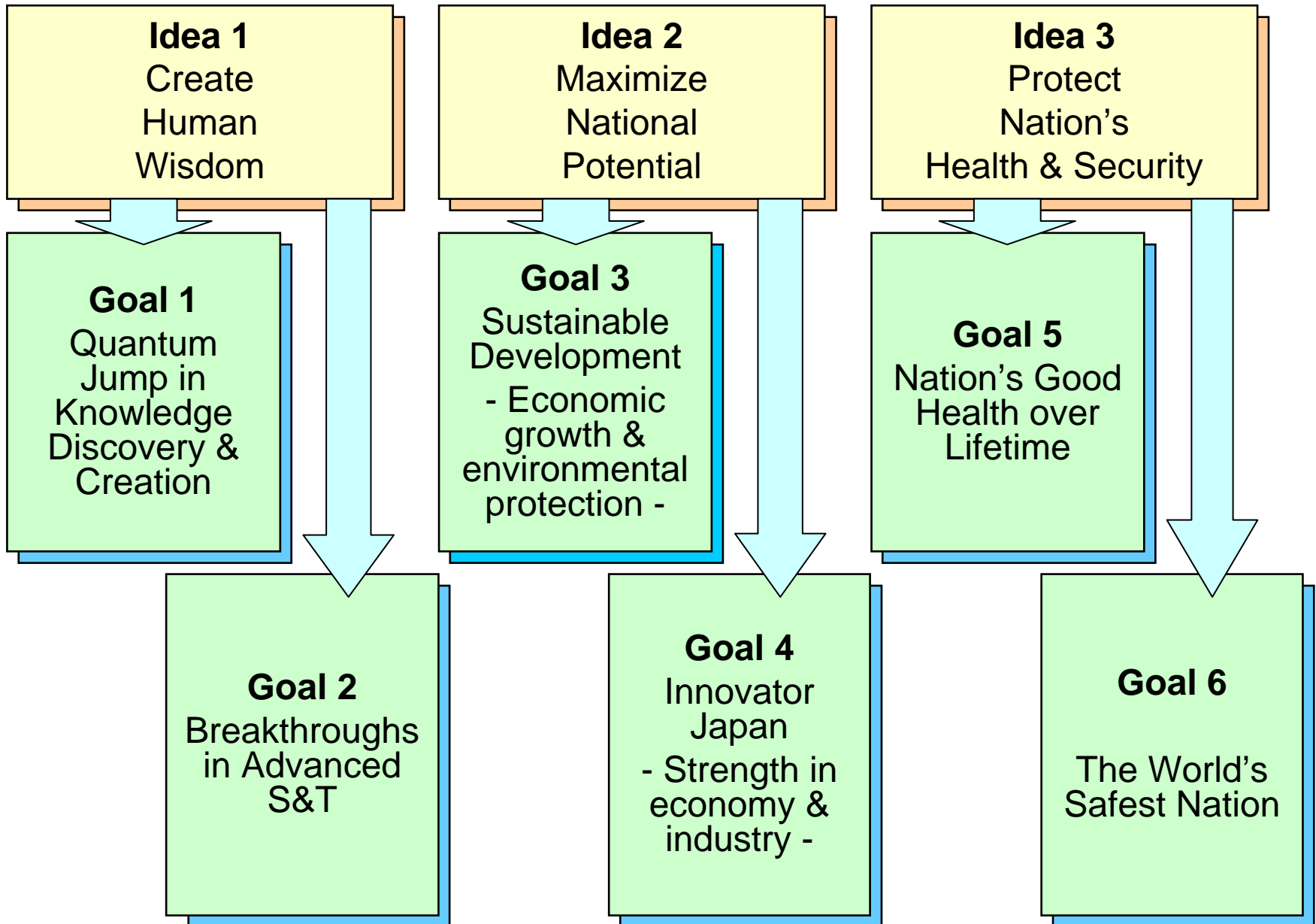
Chap.4 Public Confidence and Engagement

- Responsible action regarding ethical, legal and social issues
- Reinforcement of accountability and public relations of S&T activities
- Promotion of public understanding of S&T
- Facilitation of public engagement with S&T-related issues

Chap.5 Missions of the CSTP

- More efficient and effective management of governmental R&D
- Break of institutional or operational bottlenecks
- Follow-up of the Plan and promotion of progress in S&T

Science and Technology Policy Goals



Gremien / Organisationen

- Ministry of Education, Culture, Sports, Science and Technology (MEXT)
- Ministry of Economy, Trade and Industry (METI)
- Defence Agency (JDA)
- Japan Science and Technology Corporation (JST)
- Japan Society for the Promotion of Science (JSPS)
- New Energy and Industrial Technology Development Organization (NEDO)
- National Institute of Advanced Industrial Science and Technology (AIST)
- RIKEN



**Leibniz
Gemeinschaft**

AIST

On April 1, 2001, the National Institute of Advanced Industrial Science and Technology began operations. AIST is a newly formed research organization that is the result of an amalgamation of the 15 research institutes previously under the former Agency of Industrial Science and Technology (the former AIST) in the Ministry of International Trade and Industry and the Weights and Measures Training Institute.

**Agency of Industrial Science
and Technology · MITI**

Hokkaido National Industrial Research Institute
Tohoku National Industrial Research Institute
National Institute for Advanced Interdisciplinary Research
National Research Laboratory of Metrology
Mechanical Engineering Laboratory
National Institute of Materials and Chemical Research
National Institute of Bioscience and Human-Technology
Electrotechnical Laboratory
Geological Survey of Japan
National Institute for Resources and Environment
National Industrial Research Institute of Nagoya
Osaka National Research Institute
Chugoku National Industrial Research Institute
Shikoku National Industrial Research Institute
Kyushu National Industrial Research Institute

April, 2001

**National Institute of
Advanced Industrial Science
and Technology**

MITI

Weights and Measures Training Institute

AIST

National Institute of Advanced Industrial Science and Technology:

- non-universitary research organization established in 2001
- Headquarters of AIST are located in Tsukuba and Tokyo
- 50 autonomous research units, located at 9 research bases all over Japan
- 3.200 staff (2500 scientists)
- over 3000 visiting scientists
- Budget: ca. 100 Mio Yen (75 Mio Euro)
- Mission:

Contribution to a sustainable society

Contribution to industrial competitiveness

Contribution to local industrial development

Contribution to industrial technology policies

What is RIKEN?

- The name “**RIKEN**” stands for **Rikagaku Kenkyujo** (The Institute of Physical and Chemical Research)
- 1917: Established as **Japan's first private sector research foundation** with subsidies and contributions from the Imperial Household, government and Industry

1. Longstanding reputation as a comprehensive research institute

- History of 88 years since 1917
- Japan's only comprehensive research institute of natural science

2. Broad range of research

- Large number of fields (physics, chemistry, engineering, biology, medicine, etc.)
- Interdisciplinary research
- From basic science to applied research

3. Versatile research organization adapted to the nature of research

- Institution Laboratory (for emerging research area, compound research and integrated research areas; hub organization)
- Frontier Research System (new areas of research & target-oriented)
- Center system (centralized action in prioritized fields)
- Availability of research platform (bioresources, SPring-8, etc.)

4. Promotion of alliances with industry and technology transfer

- Joint research, patent licensing, etc.

5. Competitive and diversified research funding

- Acquisition of external funding that is competitive and diverse
- Creation of competitive environment for funding inside the Institute

6. Open research system

- Joint research and broad-ranging personnel exchanges with universities, business enterprises, etc.
- Cooperation Program for graduate school with universities in Japan

7. International Institute

- Large number of foreign researchers
- Three overseas research centers
- Cooperation with foreign research institutes (including NIH & Max Planck)

8. Research evaluation on multiple stages

- First systematic evaluation by external sources, including foreign researchers
- Evaluation on research unit levels (by Centers, by laboratories, etc.)
- Evaluation of research themes & research performance