

# JST Basic Research Programs ( for **Creating Innovation** )

Osamu Ichimaru  
Director, Innovation Headquarters  
Japan Science and Technology Agency (JST)

# About JST

## (Japan Science and Technology Agency)

- Independent Administrative Agency for implementing Japan's science and technology policy

### Mission:

- **Promotion of Research and Developments**

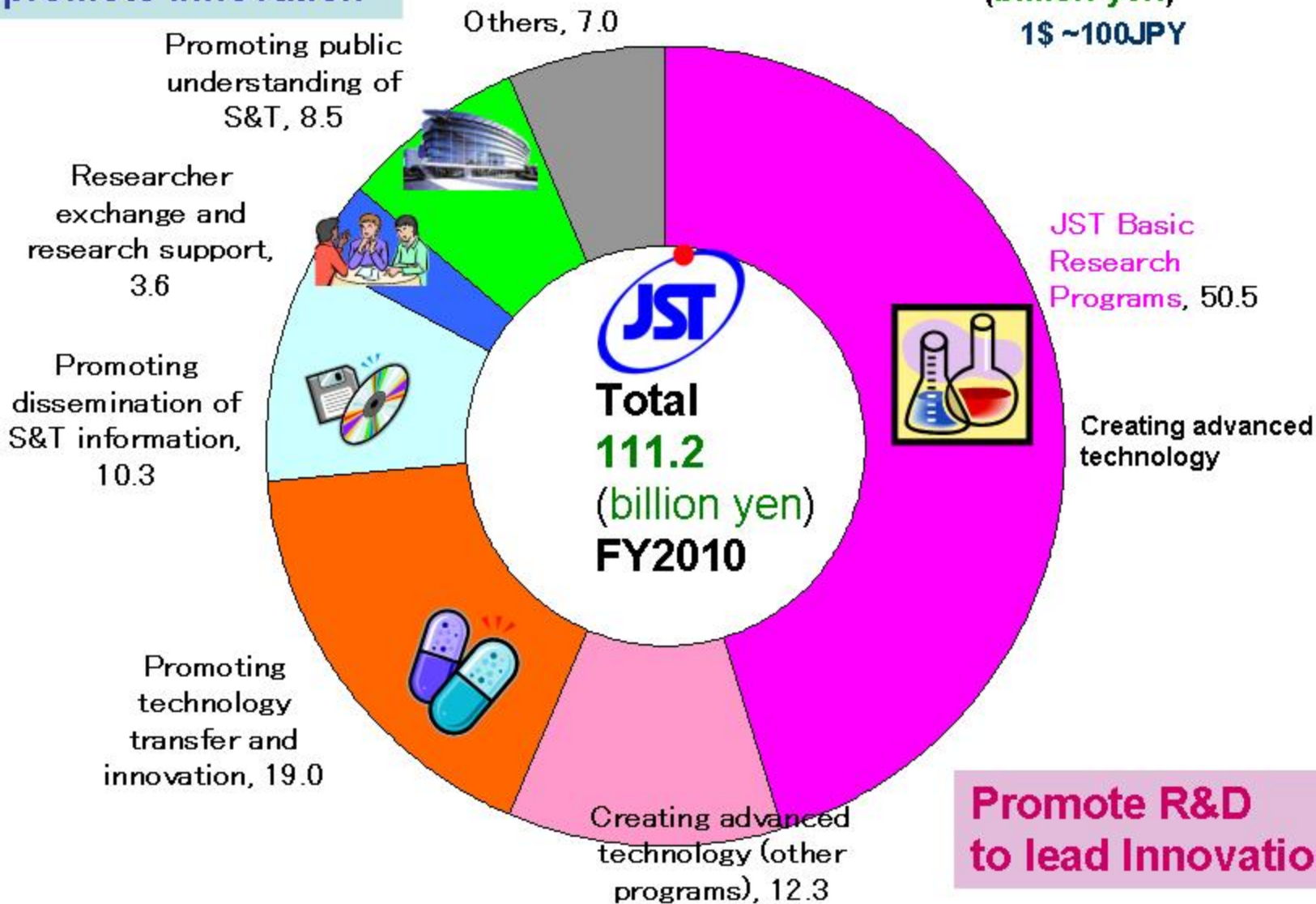
(Funding to support all of the process from **creation of knowledge**, which **leads to innovation** in Japan, to the **return of research results** to the society)

and

- **Reinforcement of infrastructure** in S&T  
to promote innovation

Reinforcement of infrastructure to promote innovation

Activities of JST Expenditures in FY 2010 (estimate) (billion yen) 1\$ ~100JPY



Promote R&D to lead Innovation

# Top-down and Bottom-up basic research projects

## Bottom-up type

### “Grants-in-aid for scientific research” (JSPS\*, MEXT\*\*)

\* Japan Society for the Promotion of Science  
\*\* Min. of Educ., Culture, Sports Sci. & Tech.

Promote various types of academic work through research activities

Support for academically distinguished, original, pioneering research

Research proposal based on the free thought of individual researchers

## Top-down type

### “JST Basic Research Programs”(JST)

National policy objectives  
(Science and Technology Basic Plan)

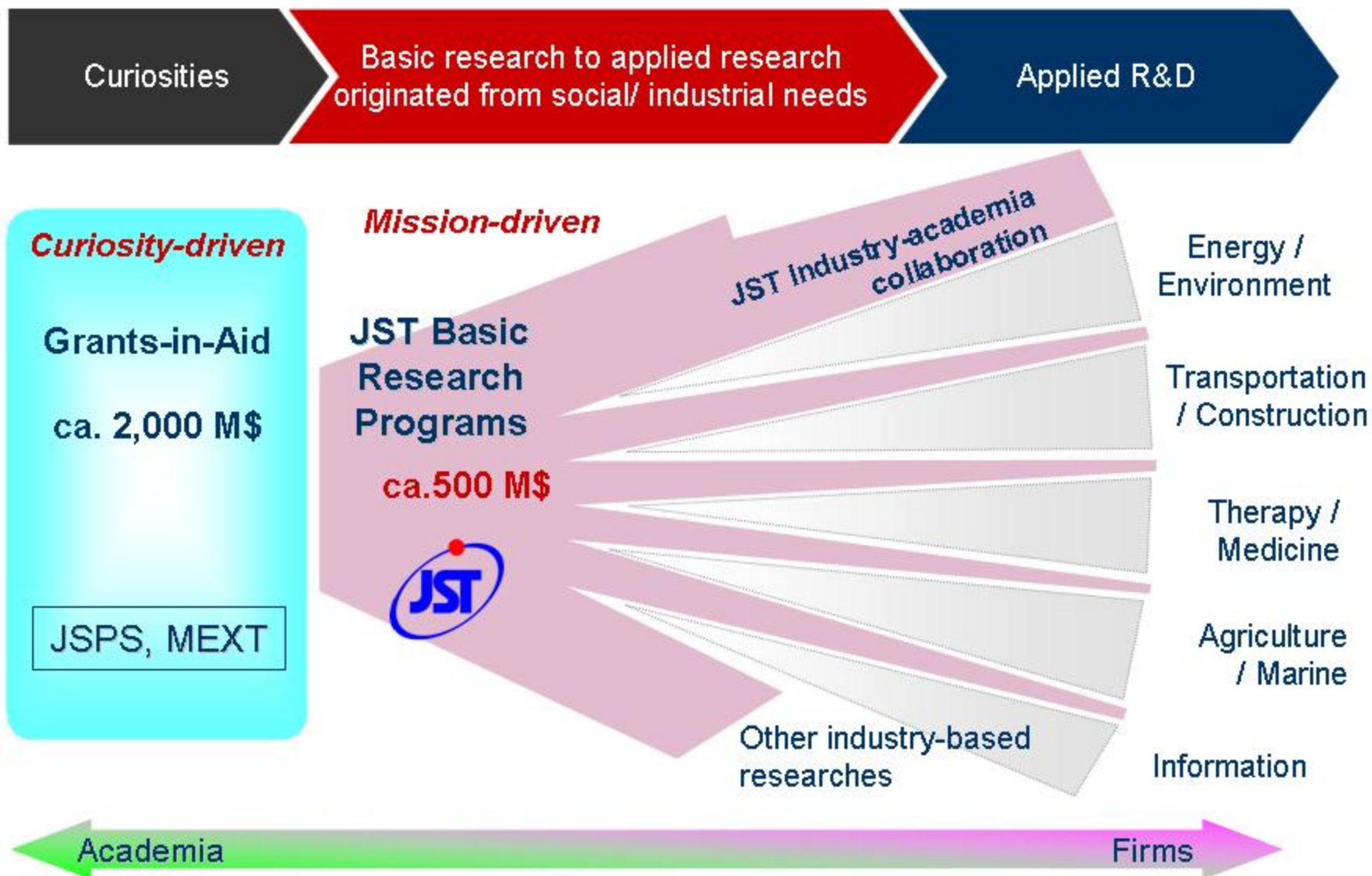
Set forth national strategic sectors

Establish research areas and research supervisors  
Intensively promote research by mobilizing exceptional researchers to respond to desired research content, in order to achieve national policy objectives

Creation of innovative technology seeds through research results

# Roles of Basic Research Programs

1\$ ~100JPY



# Structure of JST Basic Research Programs

Ministry of Education, Culture, Sports, Science & Technology (MEXT)

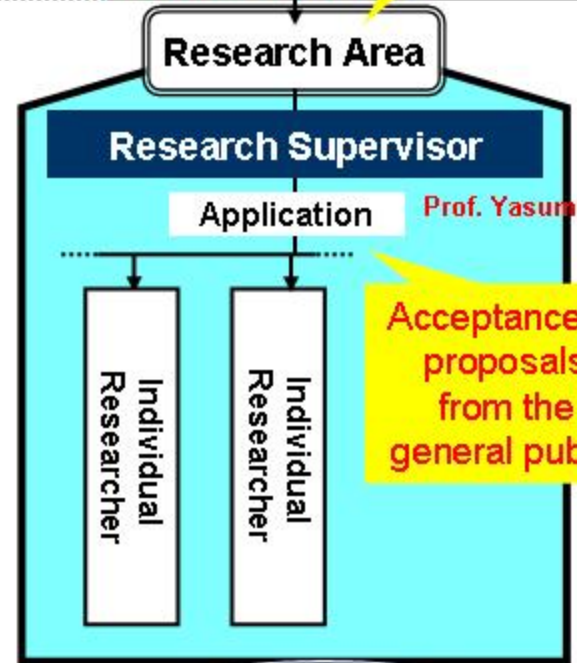


**Strategic Sectors (FY 2007)**  
 "Search for Breakthrough by Mathematics (SBM)"

**JST**

Designated by JST  
 "Alliance for Breakthrough between Mathematics and Sciences (ABMS)"

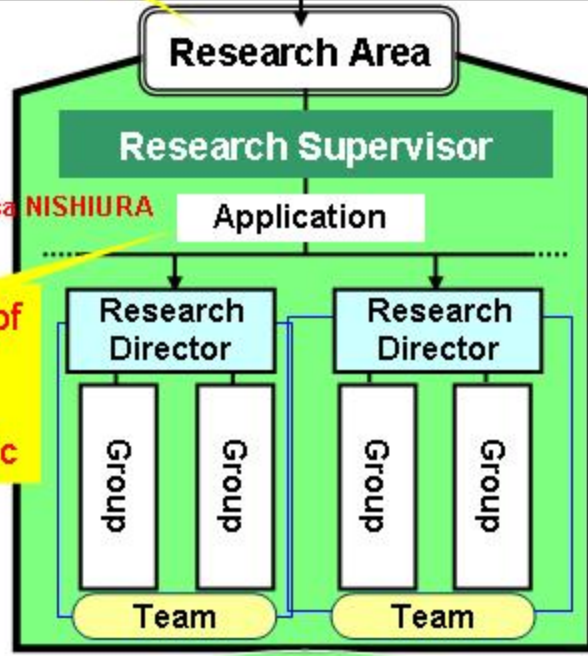
Proposed by Research Director



**PRESTO**

"Individual"

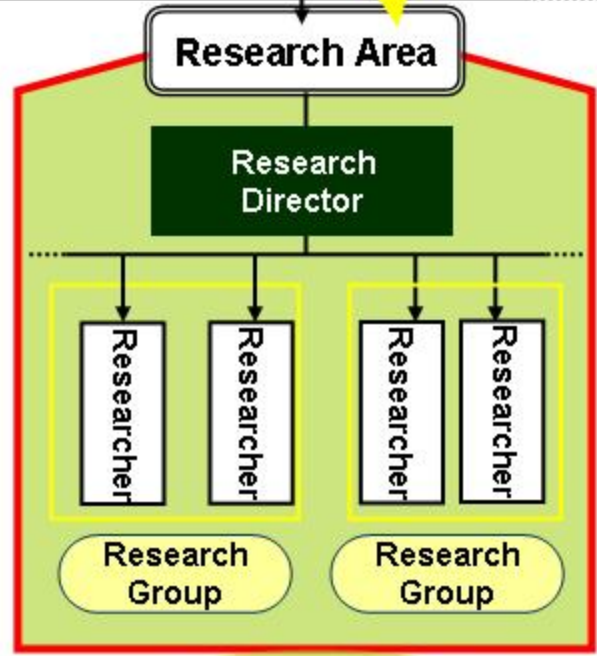
Precursory Research for Embryonic S&T



**CREST**

"Team"

Core Research for Evolutional S&T



**ERATO**

"Research Director"

Exploratory Research for Advanced Tech.

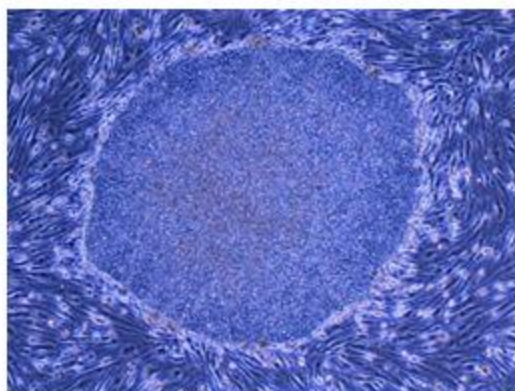
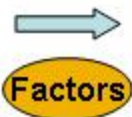
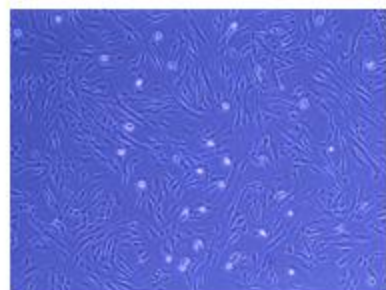
Acceptance of proposals from the general public

# Outcomes of JST Basic Research Programs

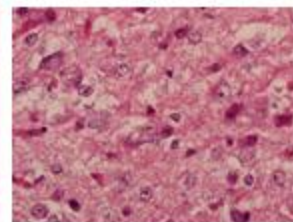
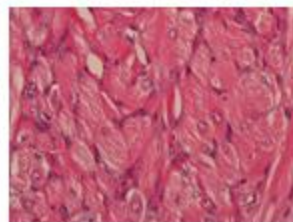
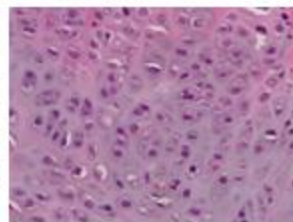
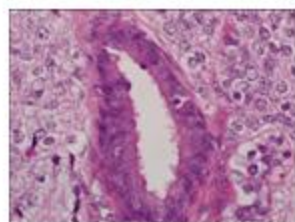
**Generation of human induced pluripotent stem (iPS) cell**  
Shinya Yamanaka Prof. Kyoto Univ.

Adult skin fibroblast

Human iPS cell



Induction of differentiation



**Discovery of third-category high-temperature superconductor (a compound containing Fe)**  
Hideo Hosono Prof., Tokyo Inst. of Tech.



## Advancing the globalization and international development of our activities

- ❑ JST encourages international activities of JST Basic research programs, such as:
  - International symposium
  - International cooperative research
  
- ❑ Purpose :
  - accelerate the progress of its research in cooperation with foreign research institutions and researchers,
  - acquire the recognition of its research activities.

**For more information, please visit**

**<http://www.jst.go.jp/EN/>**

**Thank you!**