

# Center for Center for Low Carbon Society Strategy

Established in December 2009  
in Japan Science and Technology Agency (JST)

LCS aims to lay out the image of a bright and affluent low carbon society, and formulates the comprehensive strategy and scenario to realize it.

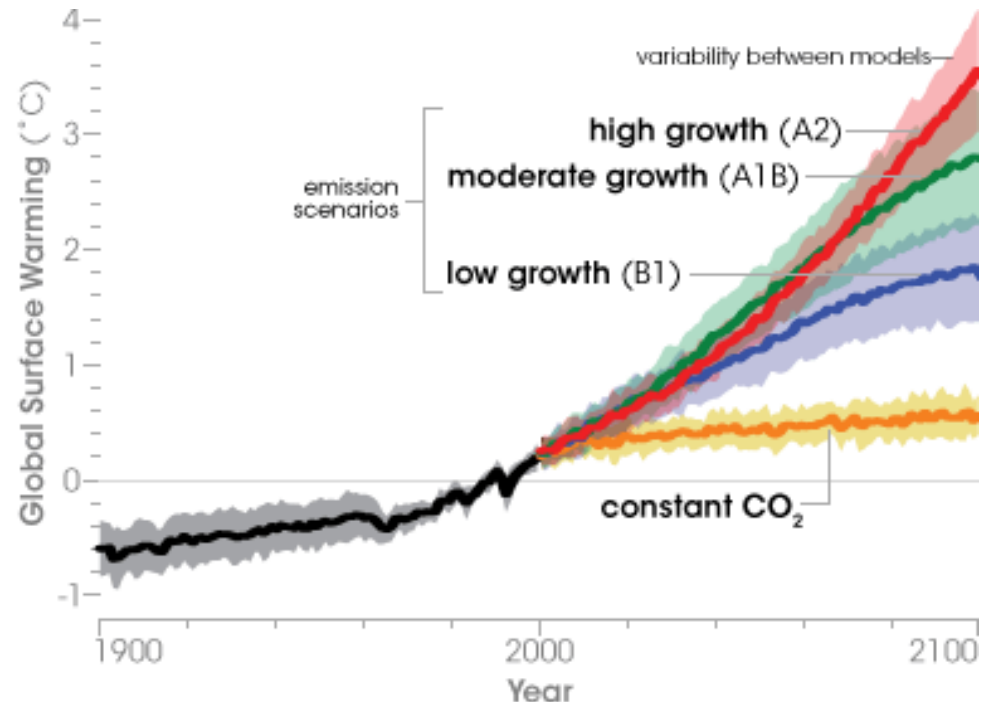
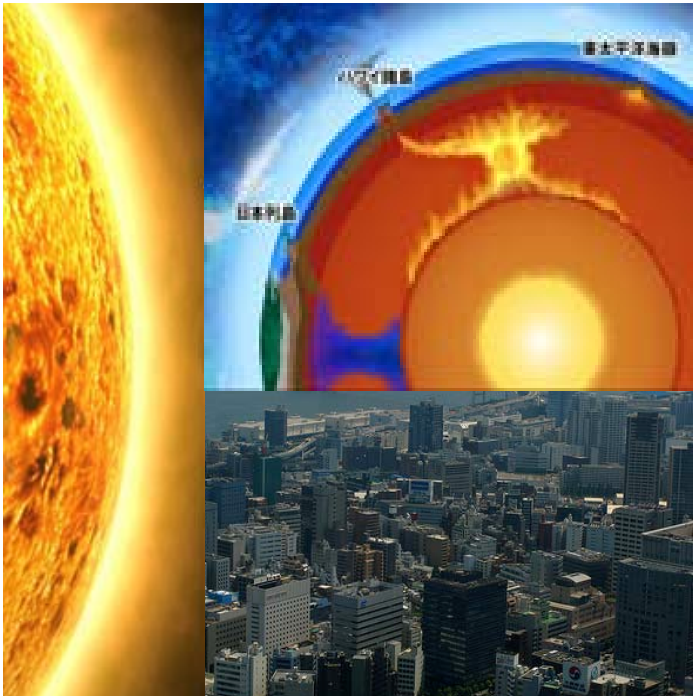
The energy consumption fields in Japan can be classified into two categories: “manufacturing” and “daily life”. LCS focuses on “daily life”, because large potential for reducing energy consumption exists in this category. Japan can reduce CO2 emission by efforts in “daily life” and excellent energy conservation technology in “manufacturing”.

October 5, 2010  
Masahiko NODA  
Center for Low Carbon Society

# Japan's Policy against Climate Change

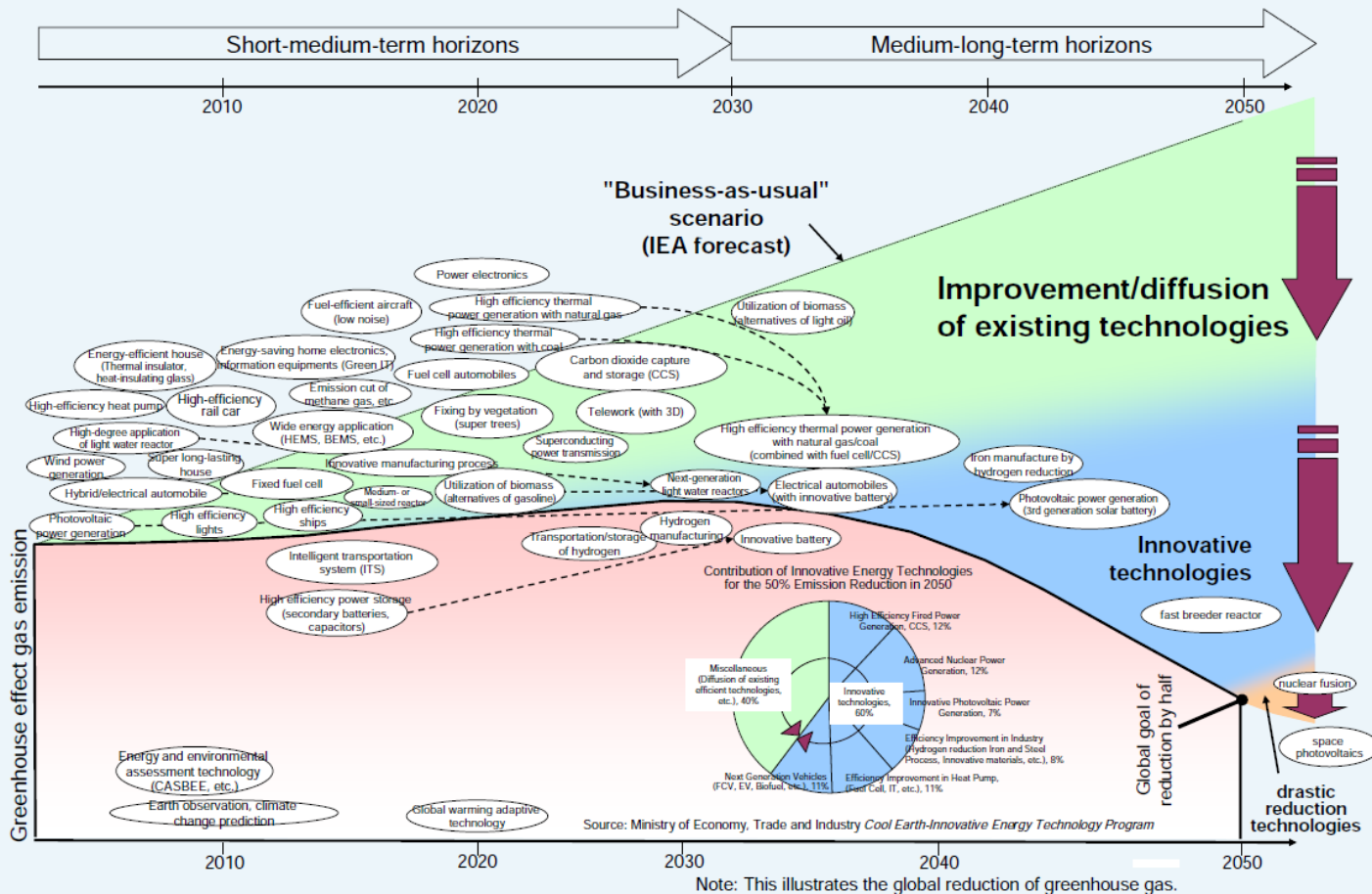
- Major Trends in **Green Innovation** Promotion in Japan
  - Budget Allocation Guideline for Green Innovation in FY2010
- Green Innovation Strategy excerpted from “**New Growth Strategy**”

As Japan's approaches to global environmental problems, the Council for Science and Technology Policy (CSTP) established its Environmental Energy Technology Innovation Plan in May 2008, targeting the realization of a globalized low-carbon society, energy security, a balance between environment and economy, and contributions to the developing world.



# Environmental Energy Technologies are the key to create Low Carbon Society

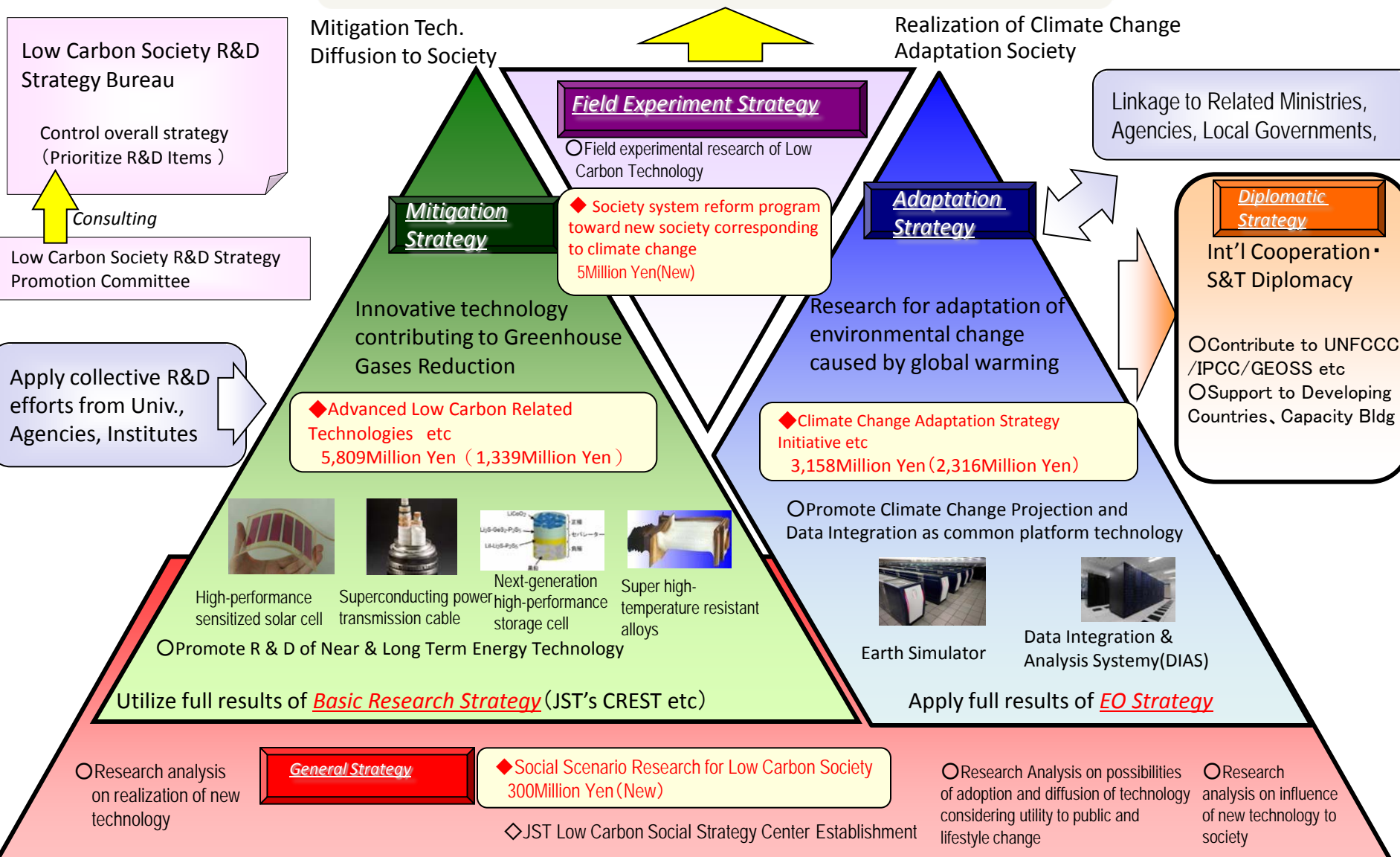
Figure 1-2-1 Development and Diffusion of Environmental Energy Technologies



Source: Council for Science and Technology Policy *Environmental Energy Technology Innovation Plan*

# Strategic Scheme for Green Innovation by MEXT

## Social System Transformation for Low Carbon Society





## 科学技術振興機構の使命 (JST's mission)

○技術シーズの創出を目指した、**基礎研究から企業化開発までの一貫した研究開発の推進**

Promotion of **consistent research and development from basic research to commercialization** with particular emphasis on the creation of new technological seeds

○科学技術情報の流通促進など**科学技術の振興基盤の整備**

**Upgrading the infrastructure for the promotion of science and technology**, including dissemination of scientific and technological information

## 科学技術理解増進

Promoting public understanding of science and technology

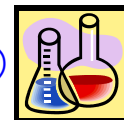
【ex】日本科学未来館 等  
National Museum of Emerging Science and Innovation (Miraikan)



## 新技術の創出に資する研究

Creating advanced technology

【ex】**戦略的創造研究推進事業**  
Basic Research Programs  
(ERATO、CREST、PRESTO etc.)



## 新技術の企業化開発の推進

Promoting business using advanced technology

【ex】**委託開発事業** 等  
Technology Transfer Program etc.



## 研究交流・支援

Researcher exchange and research support

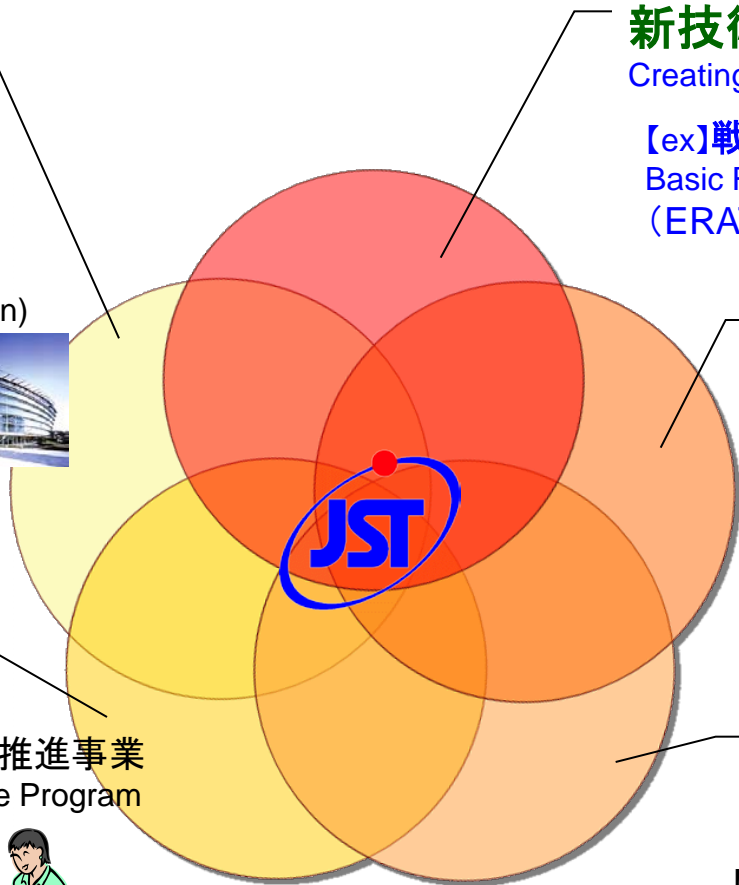
【ex】**戦略的国際科学技術協力推進事業**  
Strategic International Cooperative Program



## 科学技術情報の流通促進

Promoting dissemination of scientific and technological information

【ex】**文献データベース** 等  
Database of S&T information etc.



# 予算 Budget

その他  
Others  
8

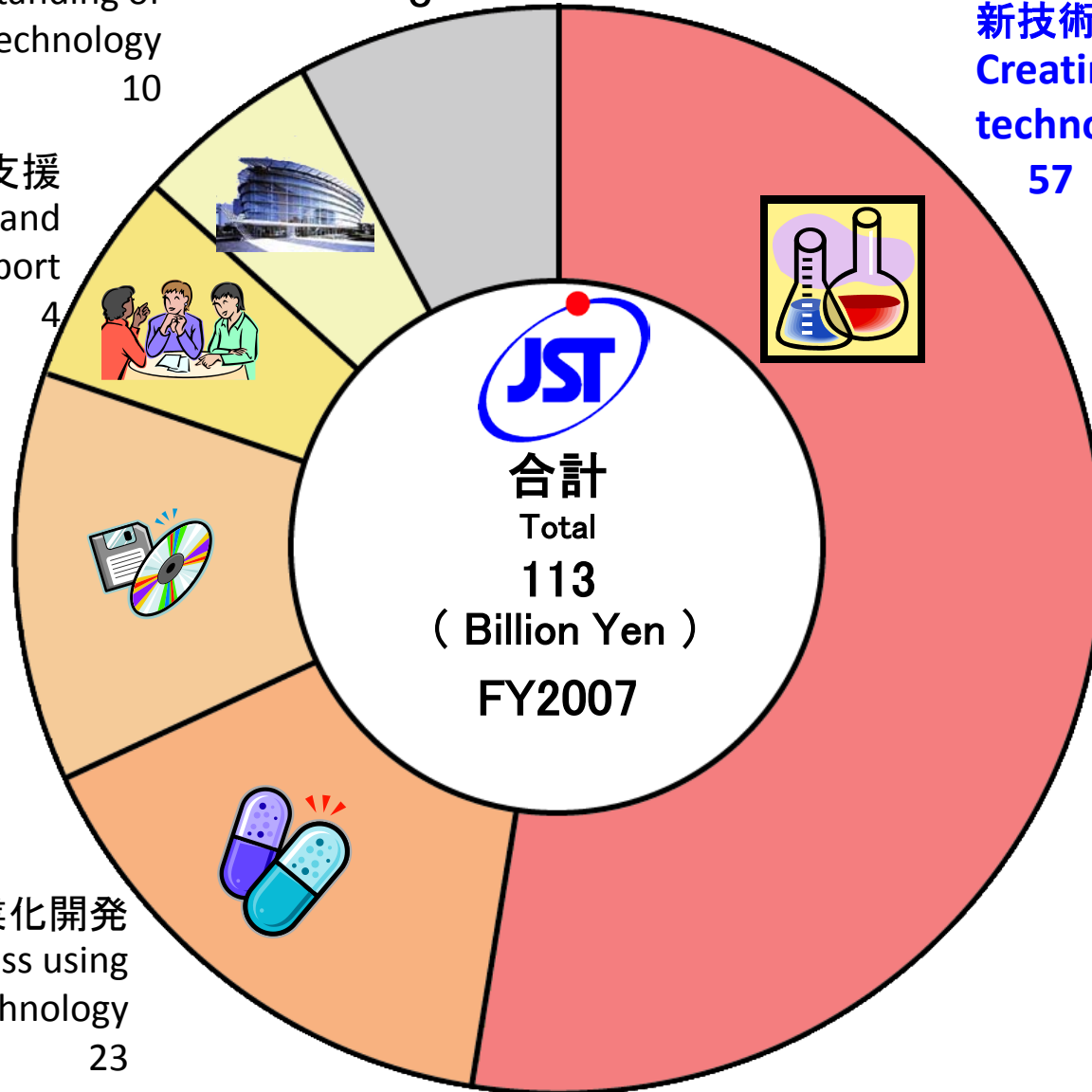
科学技術理解増進  
Promoting public understanding of  
science and technology  
10

研究開発交流支援  
Researcher exchange and  
research support  
4

科学技術情報流通  
Promoting dissemination  
of scientific and  
technological information  
11

企業化開発  
Promoting business using  
advanced technology  
23

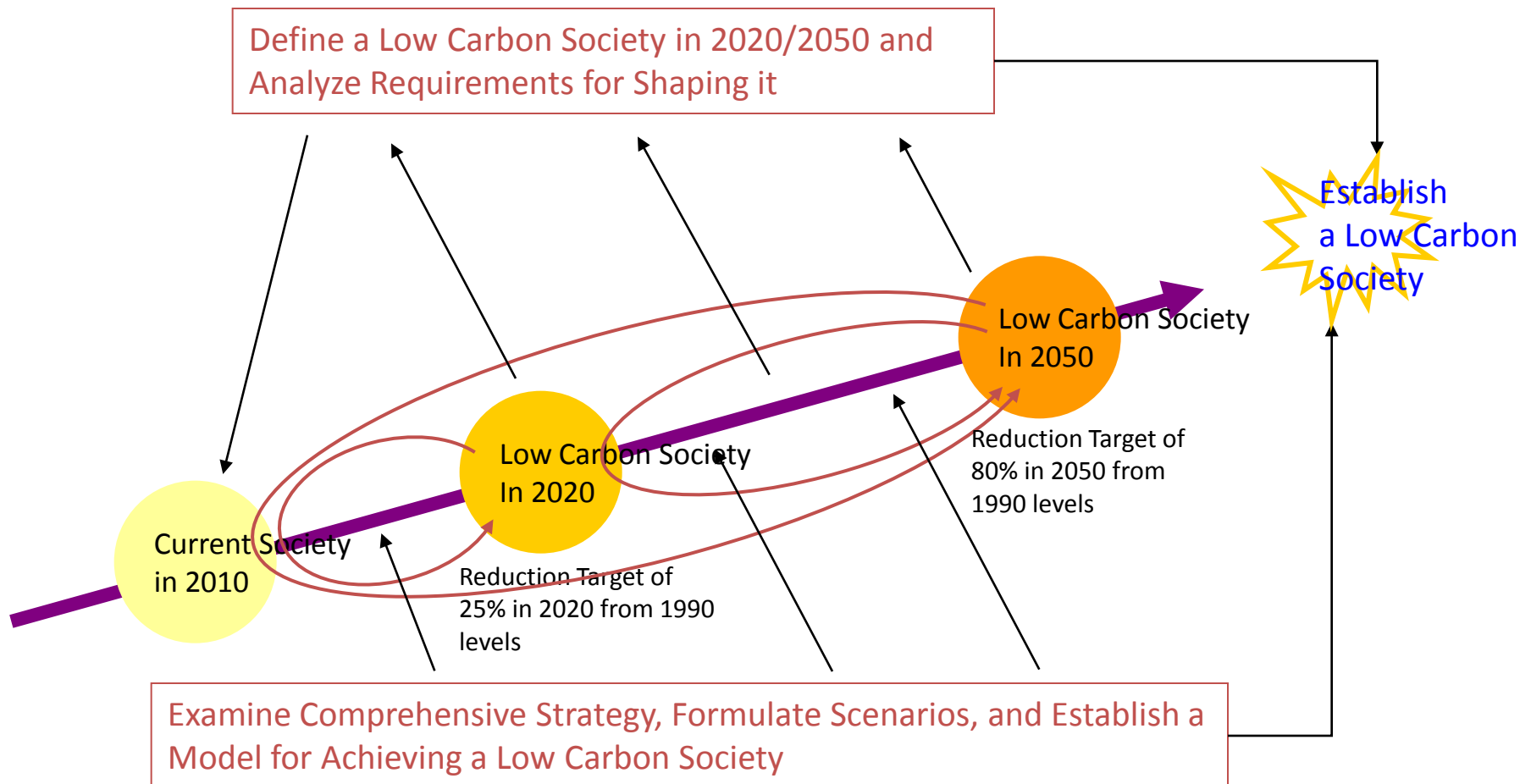
新技術創出研究  
Creating advanced  
technology  
57



合計  
Total  
113  
( Billion Yen )  
FY2007

# Center for Low Carbon Society Strategy

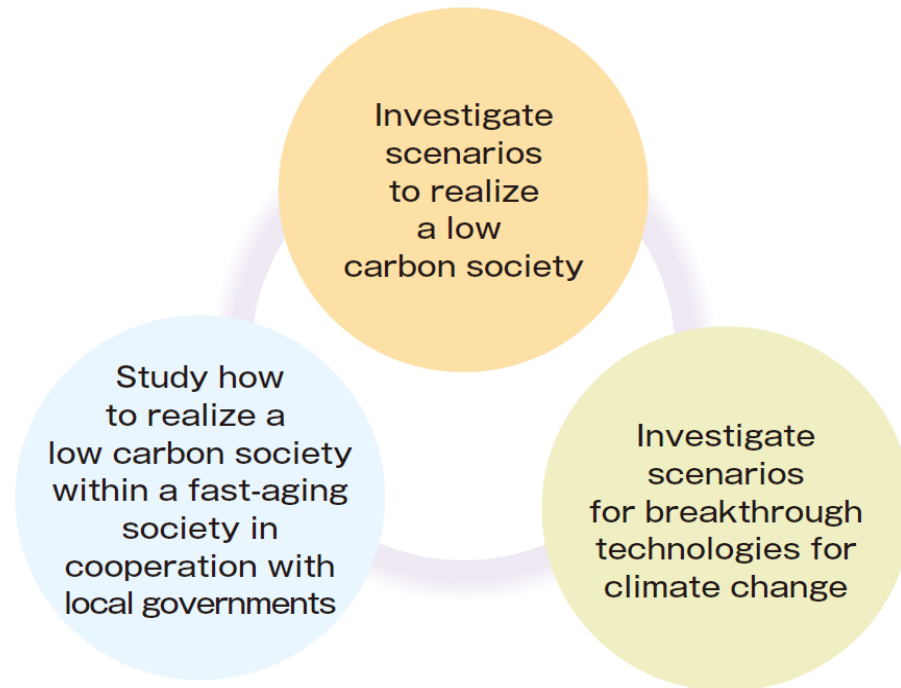
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# Center for Low Carbon Society Strategy

LCS makes the scenario and the strategy from the technology and the viewpoint of the society.

## Three Fields of the LCS



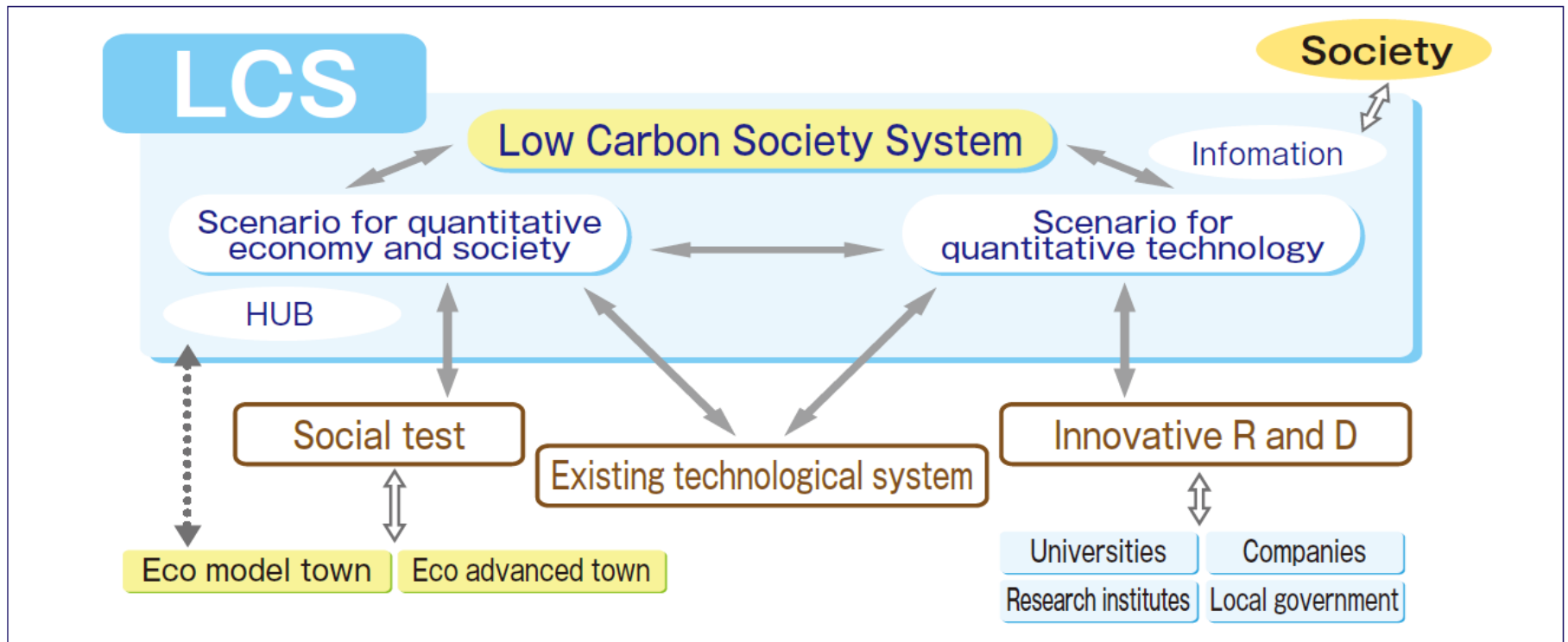
[Others]

The LCS aims to establish new industries and create new and stable jobs within this fast-aging society, and enrich the life of the Japanese people.



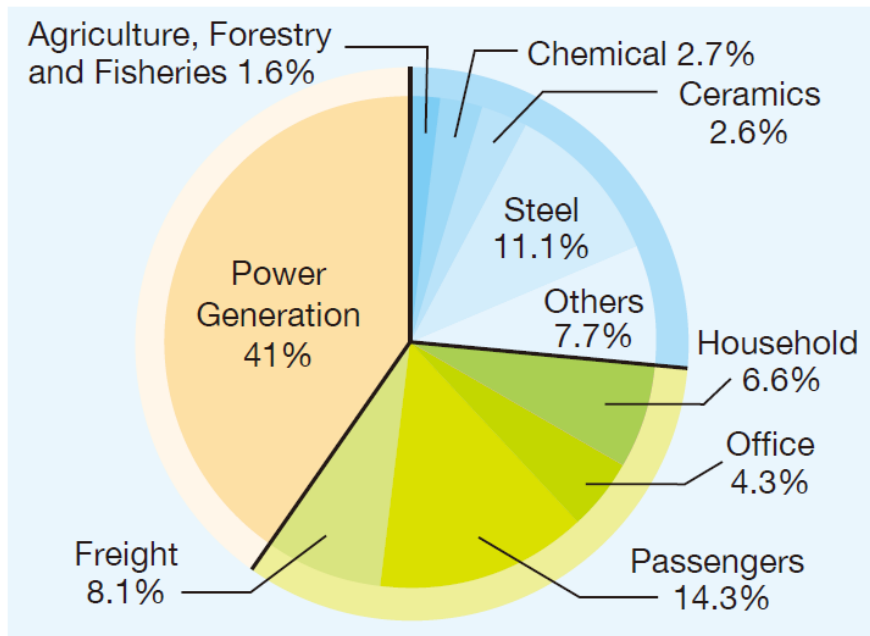
# Toward a Low Carbon Society: Action in Japan

LCS makes the scenario and the strategy of the low carbon society in cooperation with various organizations.

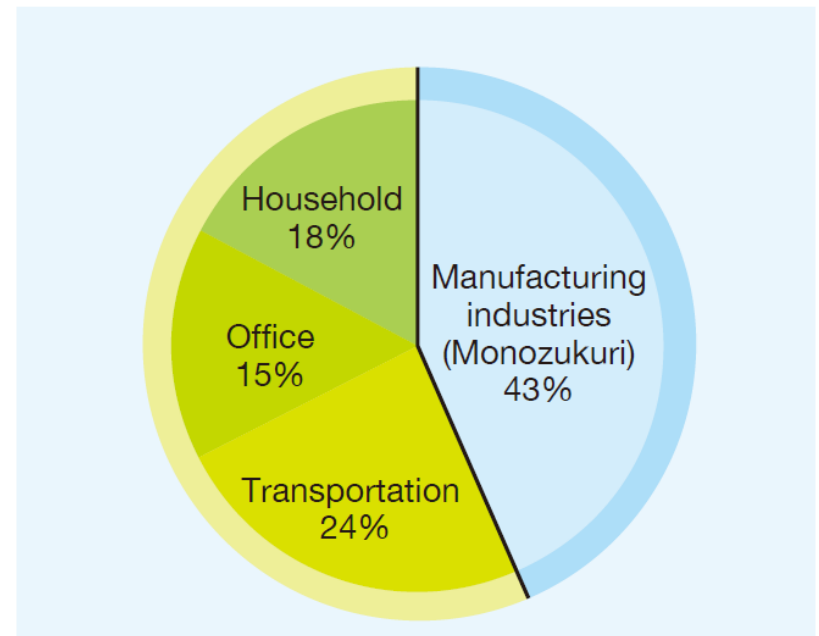


## Toward a Low Carbon Society: Action in Japan

CO2 emissions from Daily Life is greater than that of Manufacturing industries in Japan



**Figure1.** CO2 Emissions by Sector in Japan (2008)



**Figure2.** CO2 Emissions from Daily Life

(Source: General Energy Statistics 2009 (data in 2007))

## Toward a Low Carbon Society: Action in Japan

CO2 reduction from Daily Life (Reduction Target of 25% in 2020 from 1990 levels)

**Table2.** How to Reduce CO2 emissions in Japan

Daily Life	Home/Office	Visualization of energy management, promotion of new zero energy homes, promotion of home remodeling	6%
	Transportation	Promotion of transition to eco-friendly cars, changing transportation and logistics systems	6%
Power Generation		Improving operation rates of nuclear power plants, biomass energy, increase of voltage for home use	5%
Industry		Further energy conservation	3%
Agriculture		Prevention of crop diseases, production of green manures in fallow or redundant fields	1%
Forest		Forest management for conservation	4%
Bilateral carbon credit*		Steel, cement, pulp and paper, power generation, railways	5%
<b>TOTAL</b>			<b>30%</b>

\***Bilateral carbon credit** An credit system, endorsed by the Japanese government, is expected to be a solution of problems at current CDM (Clean Development Mechanism) scheme.

## Toward a Low Carbon Society: Action in Japan

LCS Contribute to Promote Research and Development of Technologies on Save Energy, Create Energy and Recycle Materials

### **Advanced Low Carbon Technology Research and Development Program(ALCA)**

ALCA calls for innovative research proposals which contribute to the future Low Carbon Society.

Operation: JST

Launch: 2010

Annual research fund(Total): ¥ 2.5 Billion(Fy 2010)

Deadline: October 18 (Mon), noon (Japan time)

Research Type: Individual, Team

Annual Research Fund(Project): ①10~30M¥, ②30~60M¥, ③60~100M¥

Research Period: 10 Years at most, Starting from 3-5 years then competing continuation

Research Area(2010):

☆Solar Cell and Utilization System of Solar Energy

☆Rechargeable Battery Device

☆Superconductor System

☆Heat Resistant Alloy, High Performance Recycled Steel