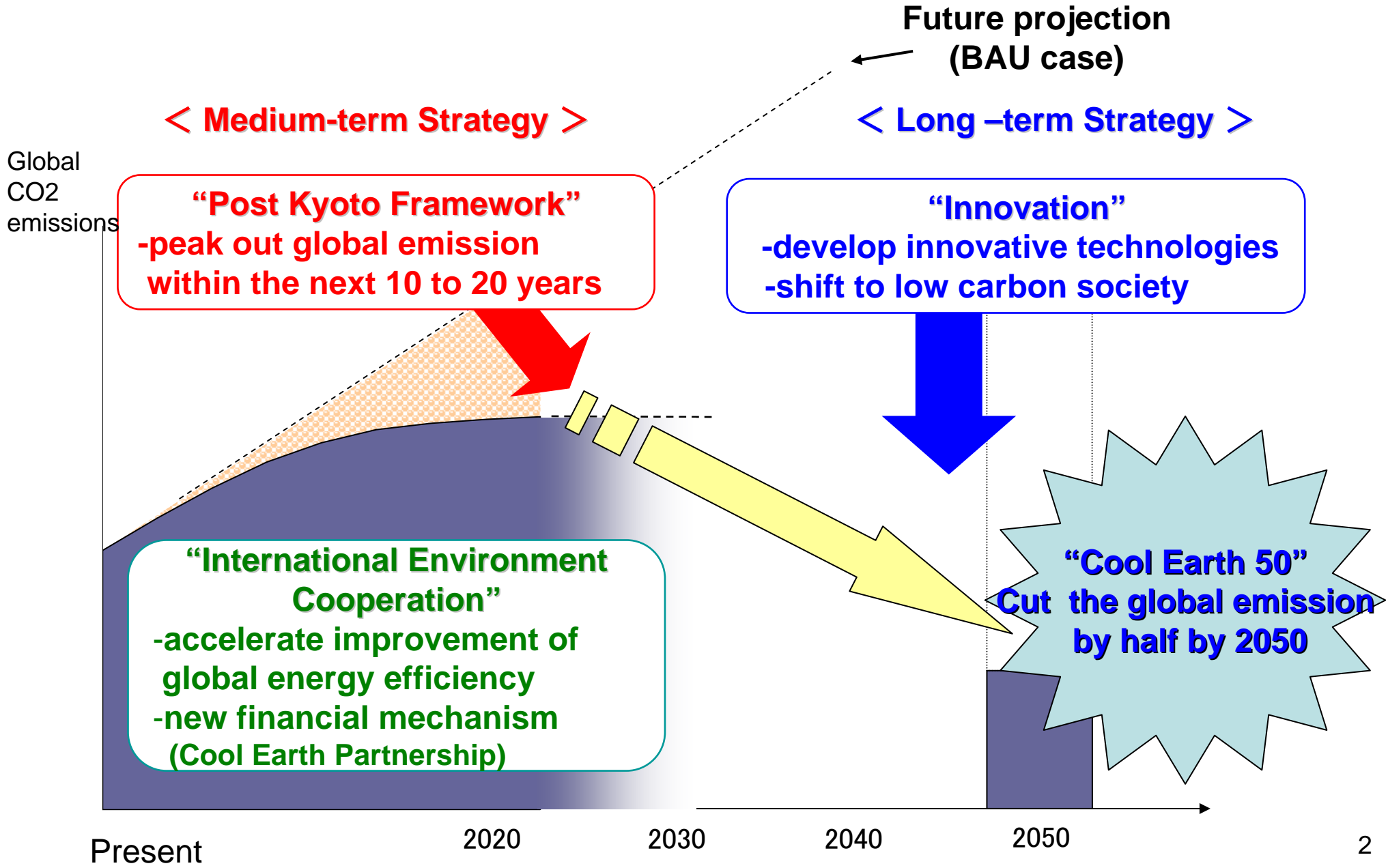


# Fact Sheet on Climate Change

Special Address by Prime Minister  
of Japan, Yasuo Fukuda

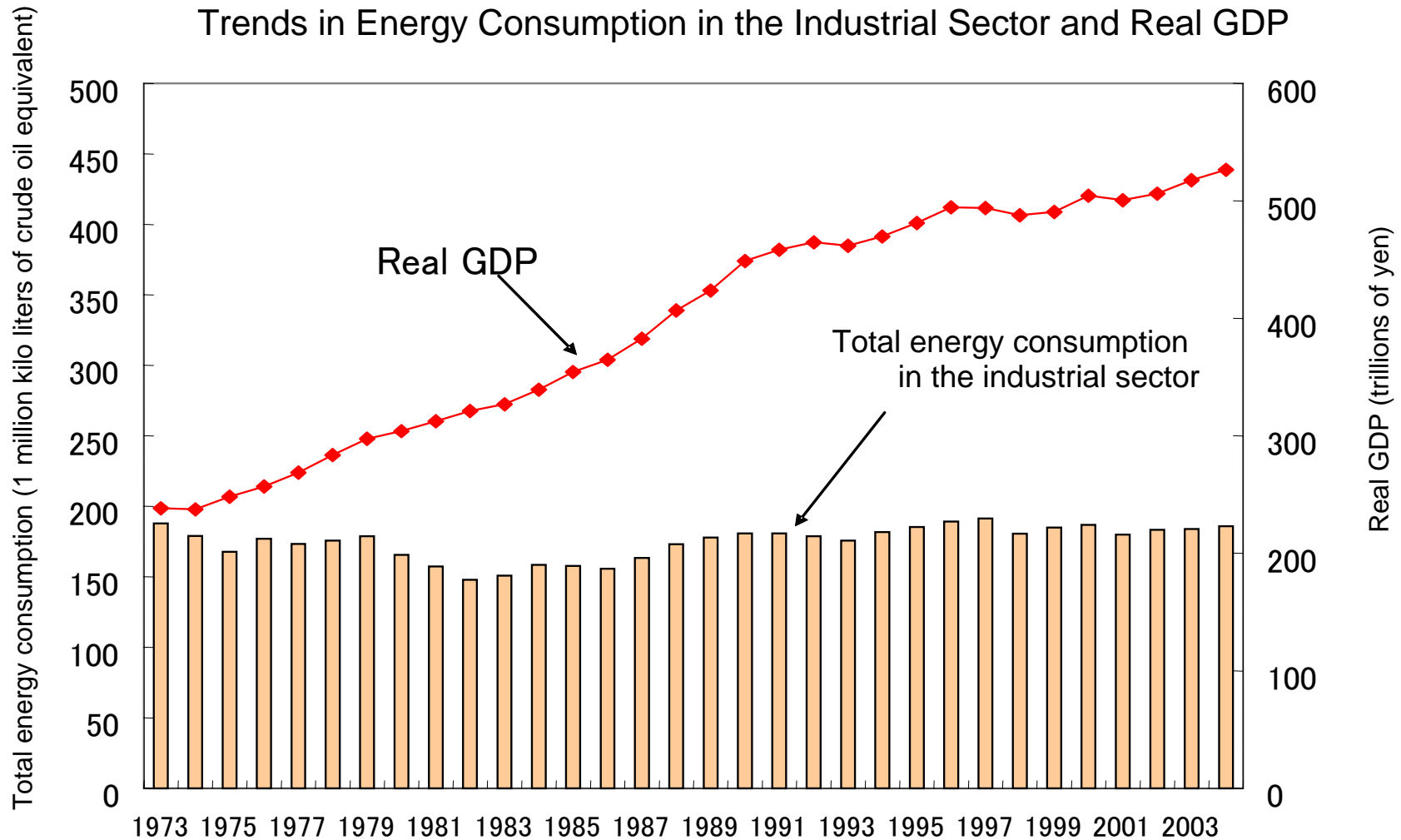
Jan 26, 2008

# “Cool Earth” Promotion Programme



# Japan's Energy Conservation Efforts are Making Steady Progress

The energy consumption in the industrial sector has stayed on the same level while **GDP has doubled**



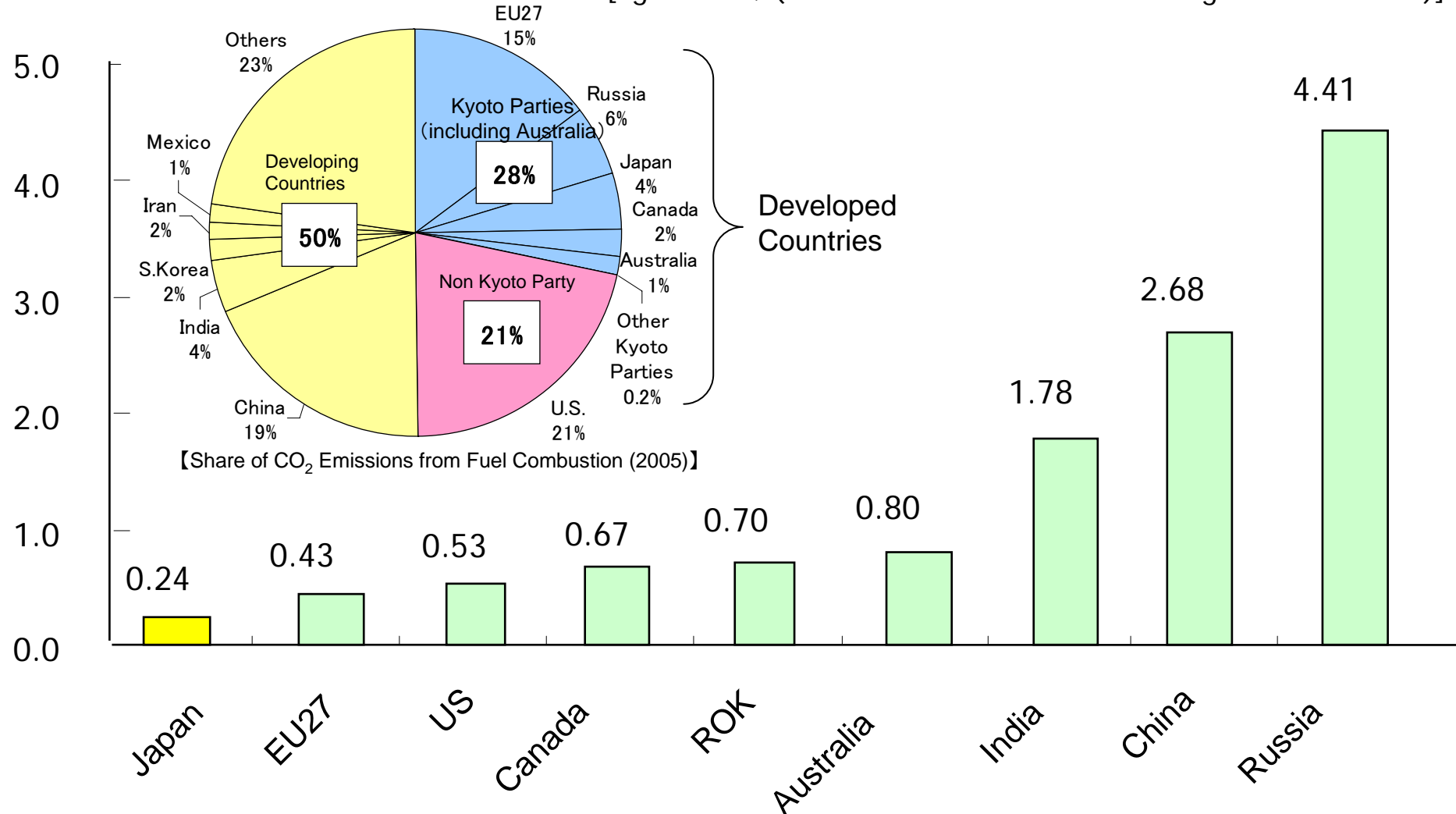
Source: General Energy Statistics (Agency for Natural Resources and Energy of the government of Japan)

System of National Accounts (Cabinet Office of the government of Japan)

# Japan is a Global Leader in Low Carbon Economies

## CO2 Emissions per GDP (2005)

[kgCO2/US\$ (Calculated with standard exchange rates for 2000)]



# Innovative Technology Development

- Japan will formulate **“Cool Earth - Innovative Energy Technology Program”** in March -increase and focus RD&D investment, and lead international cooperation

<Examples >

## High-efficiency and low-cost solar power generation

- ◆ Power generation efficiency: 15-20% → **over 40%**
- ◆ Cost: 46 yen/kWh → **7 yen/kWh**

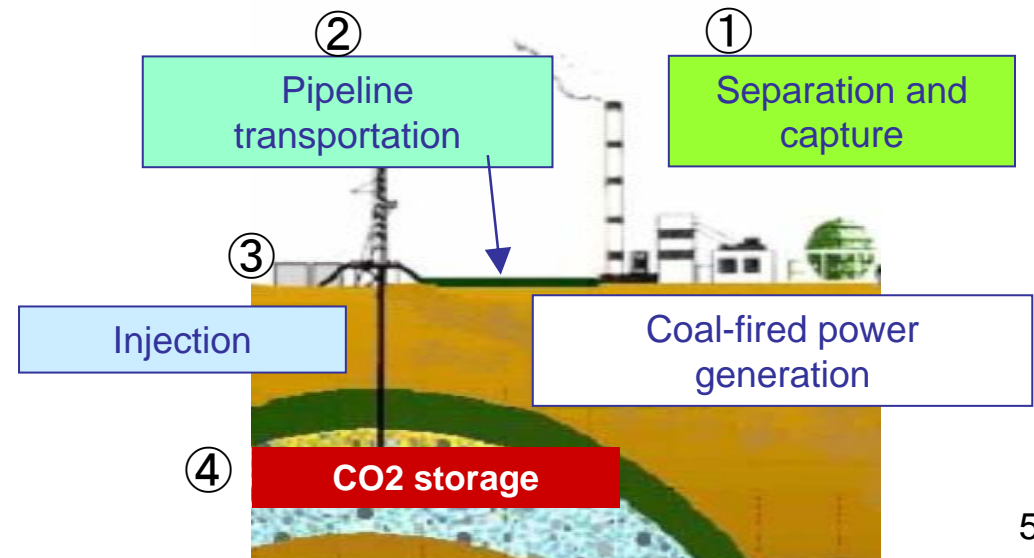
- High-efficiency and low-cost solar cells with new compounds/structures.
- Thin-film silicon technology for flexible solar cells



(Thin-film silicon solar cells)

## Near zero-emissions coal-fired power generation

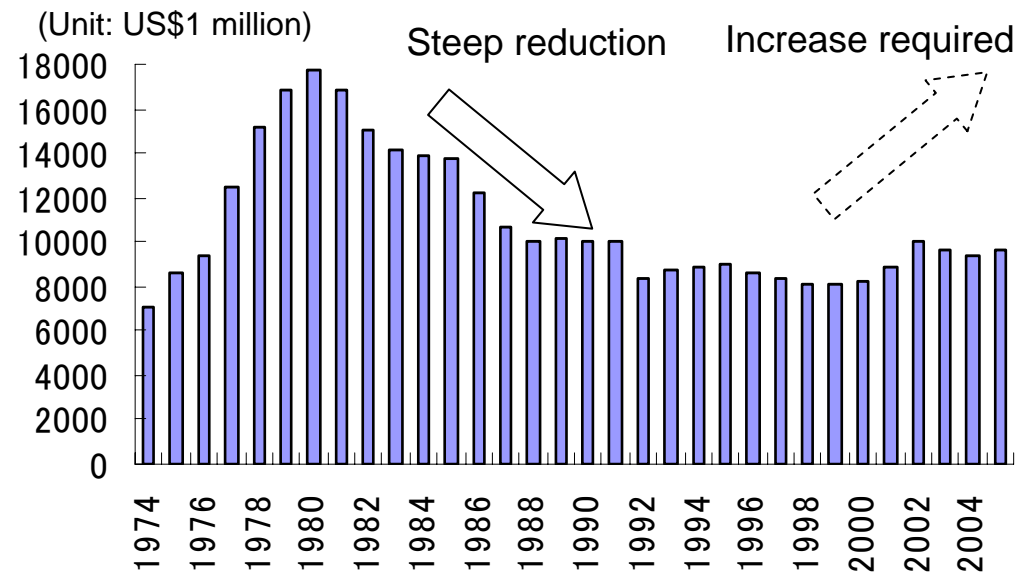
- ◆ Power generation efficiency : 43% → **around over 60%** = cut CO<sub>2</sub> by 30%  
+  
CCS(CO<sub>2</sub> capture and storage) technology  
↓  
**Near zero-emission**



# Development of Innovative Technologies to achieve the Long-term Goal

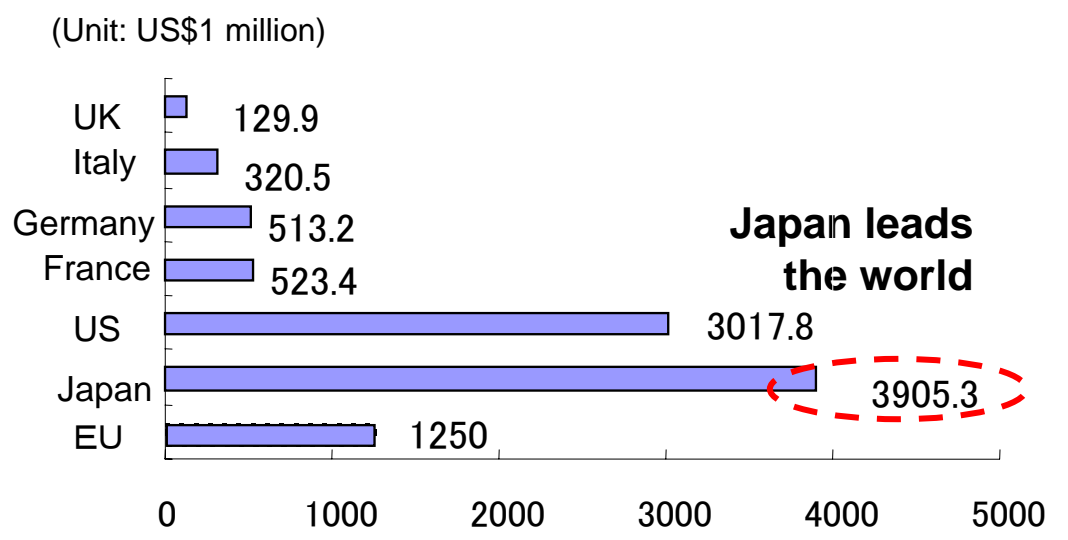
- Investment in energy-related R&D has been stagnating after steep reduction since 1980
- Japan leads Public Investment in Research and Development in the Energy Sector**

**Global Trend in Public Investment in Research and Development in the Energy Sector**



Source: IEA

**Trend in Public Investment in Research and Development in the Energy Sector by Country (2005)**



Source: IEA; European Commission.

# Building a Low Carbon Society



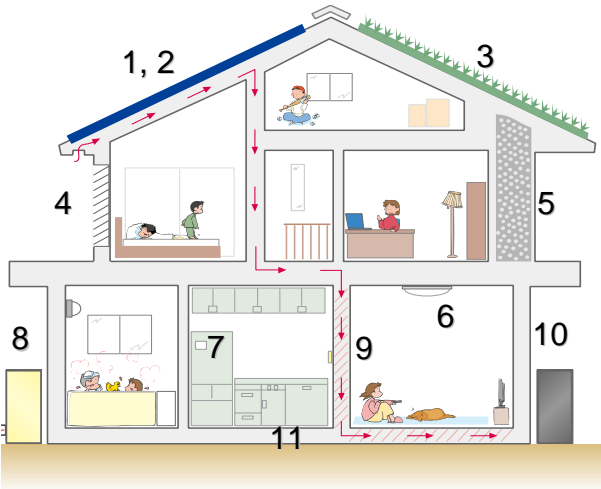
**Technological Innovation**



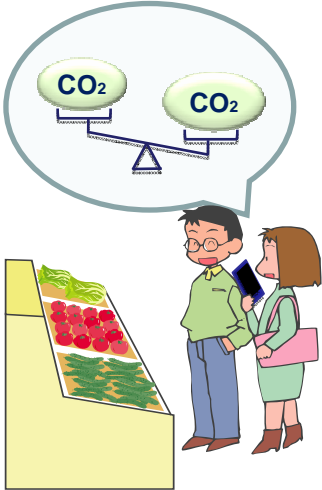
**Lifestyle Innovation**



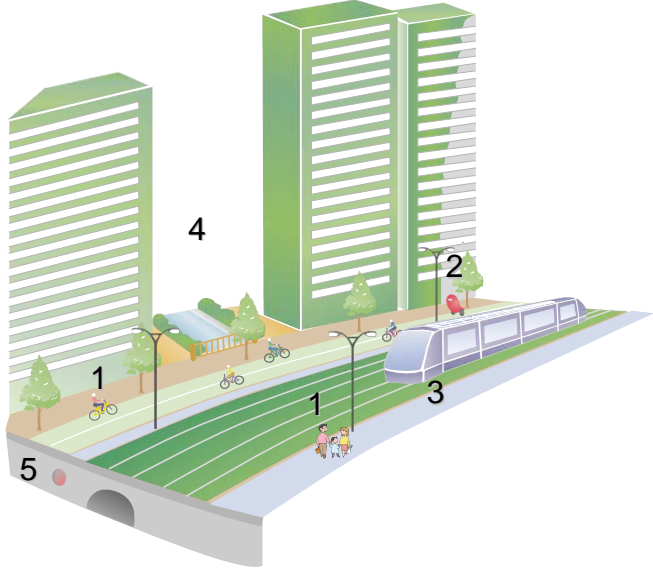
**Infrastructure Innovation**



**Low Carbon Home**



**Green consumer based on GHG data from ubiquitous visualization**



**Low Carbon Urban Area**

- 1) Photovoltaic
- 2) Solar water heater
- 3) Rooftop gardening
- 4) Light shielding
- 5) High insulation
- 6) Efficient lighting
- 7) Eco-use navigation system
- 8) Efficient heat pump
- 9) Radiant heat system
- 10) Fuel cell
- 11) 200-year durable housing

- 1) Walkable /Cyclable city
- 2) Smart Comuting / Home Office
- 3) Advanced public transportation system
- 4) Wind passage
- 5) Exhaust heat pipe