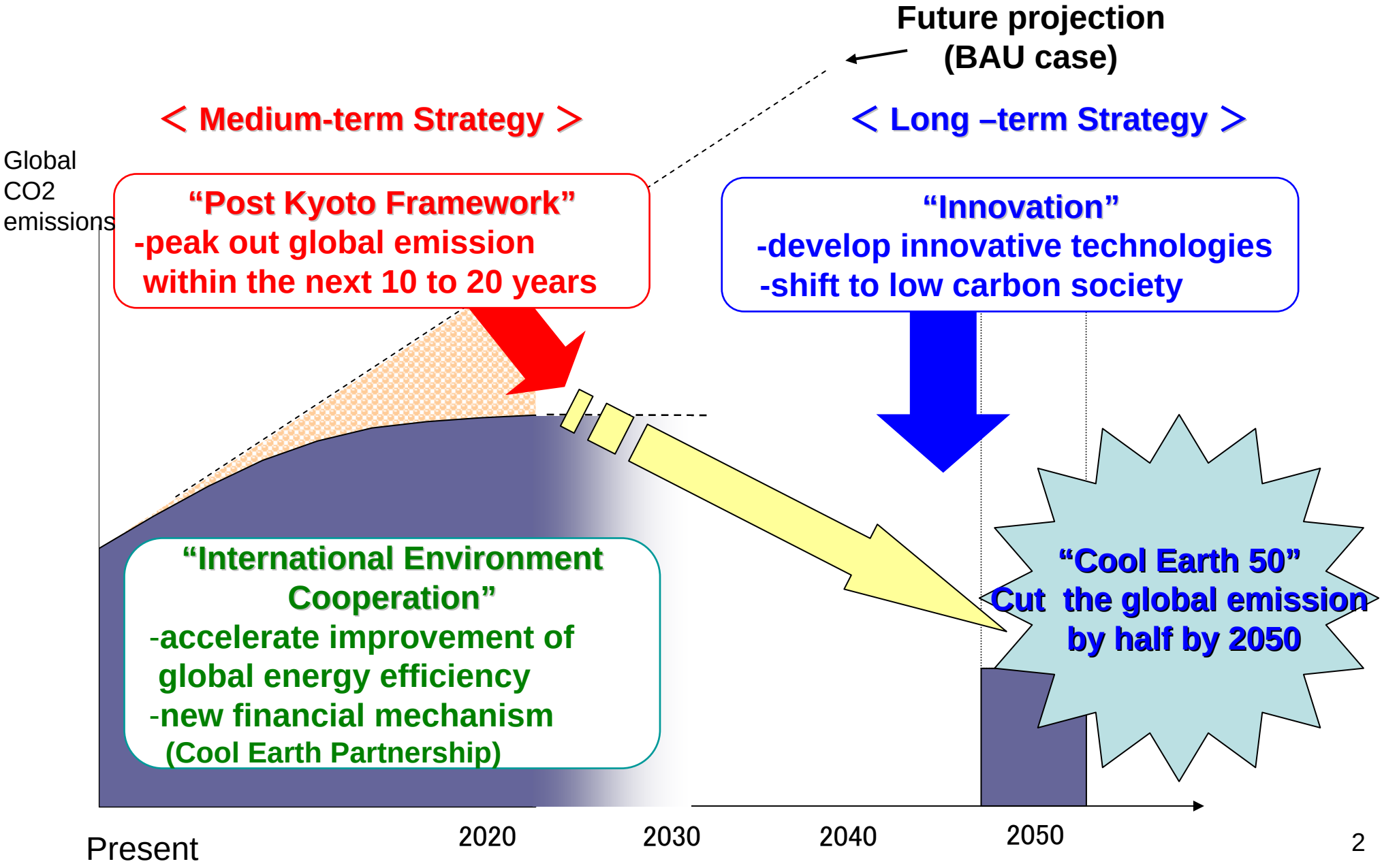
# Fact Sheet on Climate Change

Special Address by Prime Minister
of Japan, Yasuo Fukuda

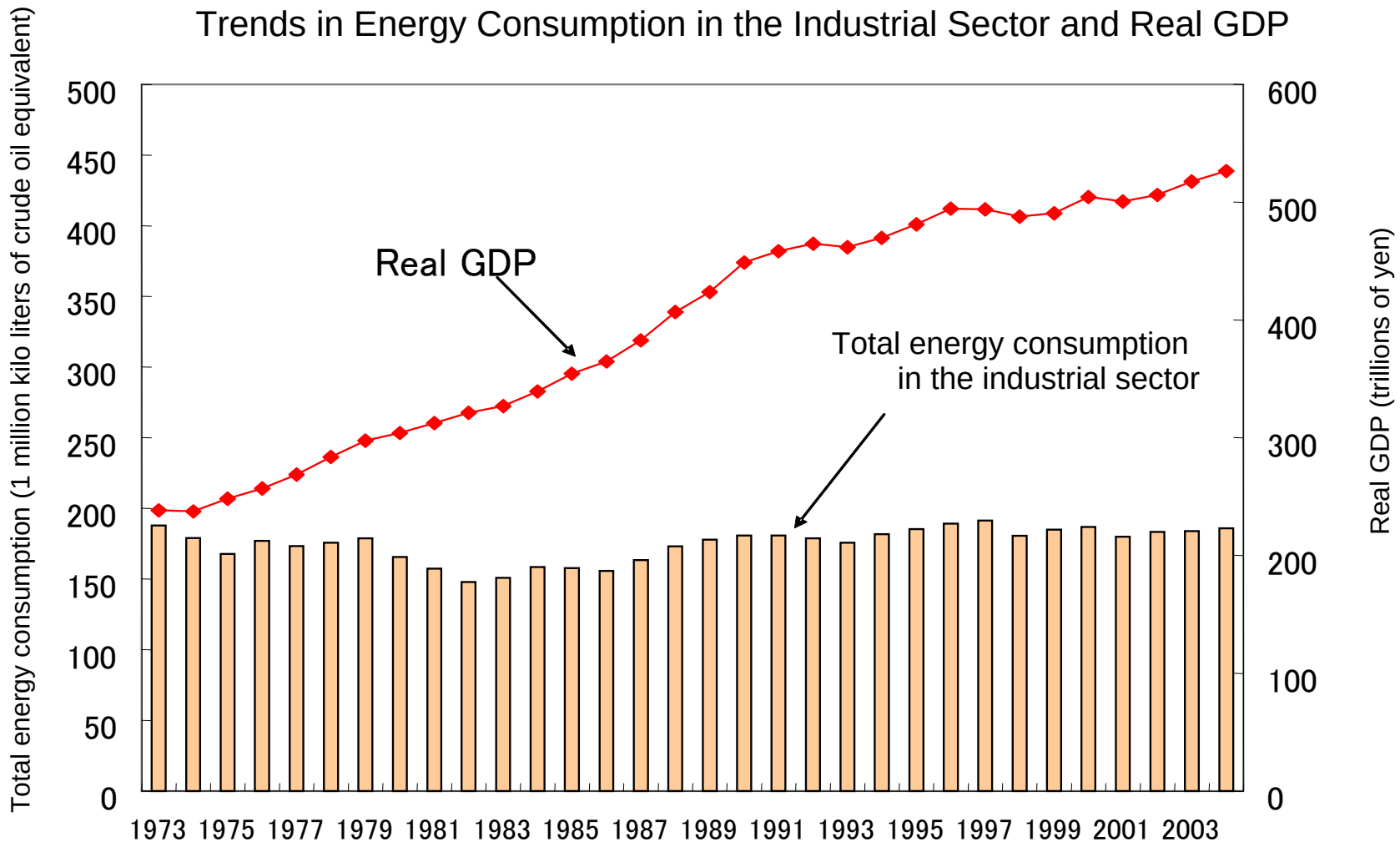
Jan 26, 2008

# “Cool Earth” Promotion Programme



# Japan's Energy Conservation Efforts are Making Steady Progress

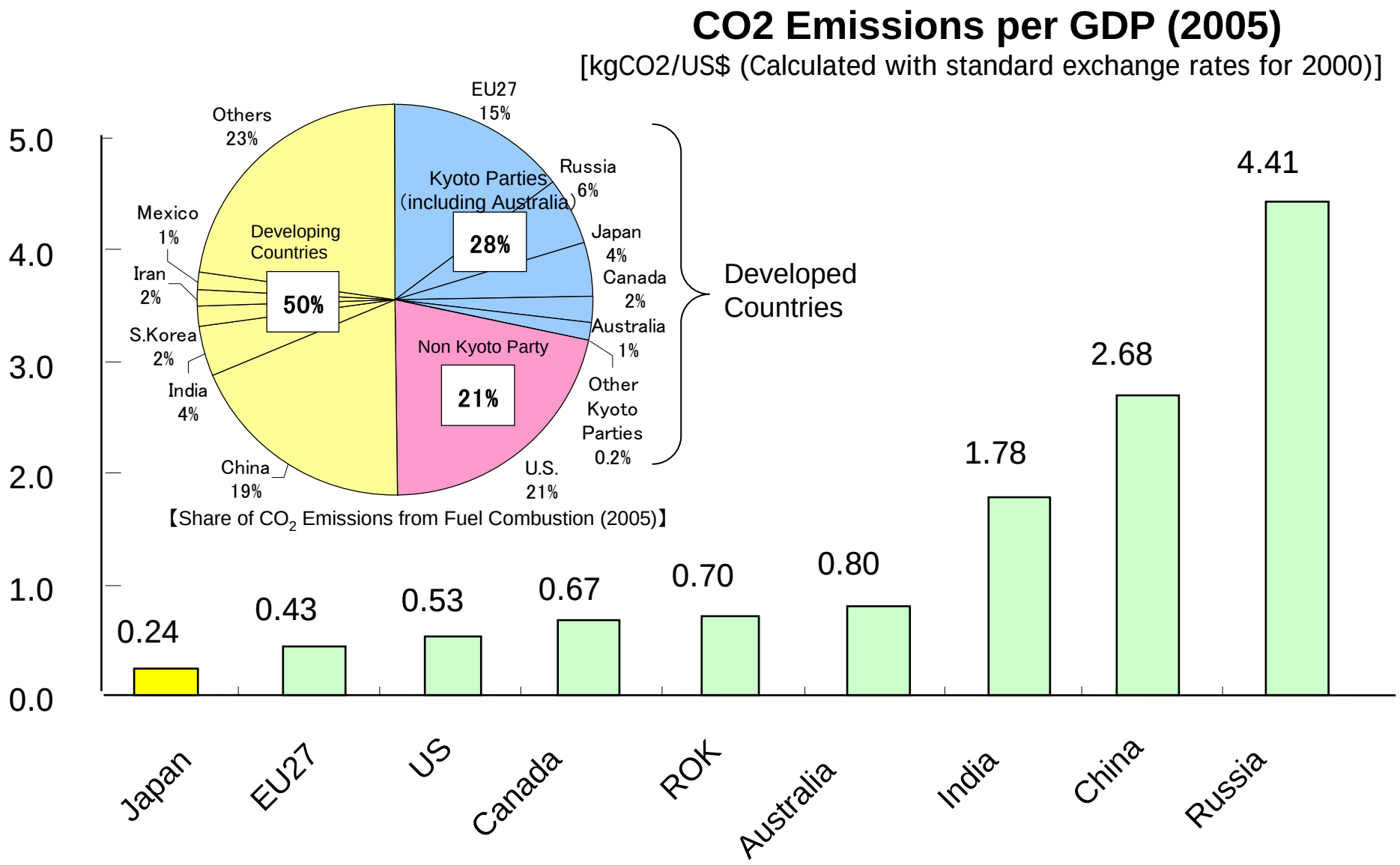
**The energy consumption in the industrial sector has stayed on the same level** while **GDP has doubled**




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




Source: CO2 Emissions from Fuel Combustion 1971-2005 (2007) (IEA)

# 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

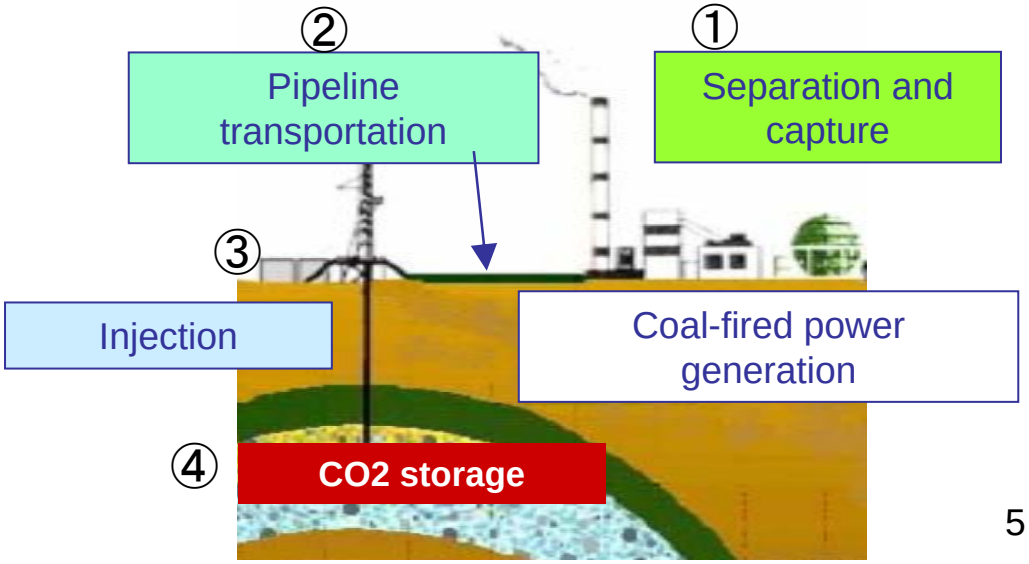
◆Power generation efficiency:
15-20% → **over 40%**
◆Cost:
46 yen/kWh → **7 yen/kWh**

- **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

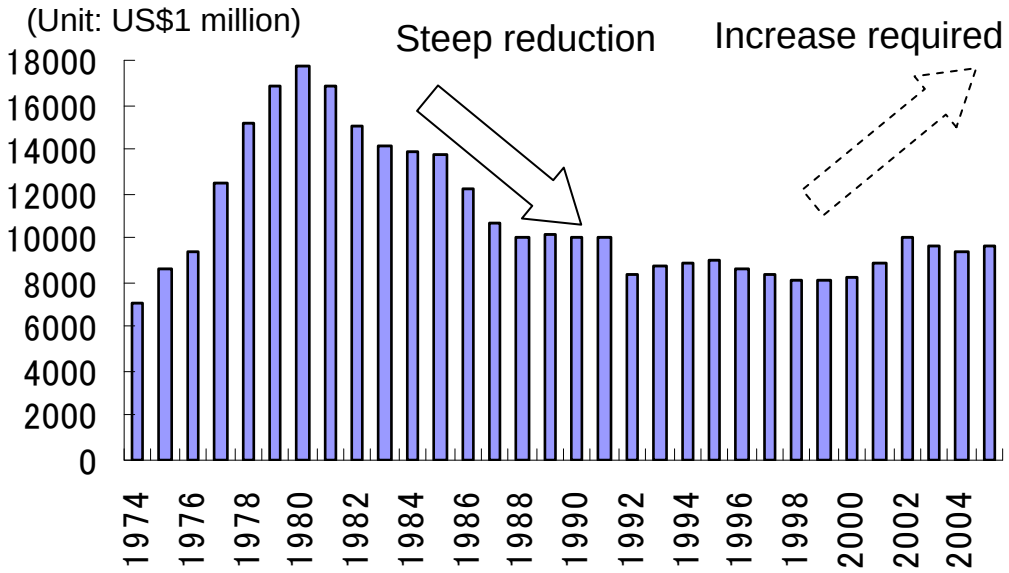
◆Power generation efficiency :
43% → **around over 60%**＝cut $CO_2$ **by 30%**
＋
CCS(CO2 capture and storage) technology
↓
**Near zero-emission**



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

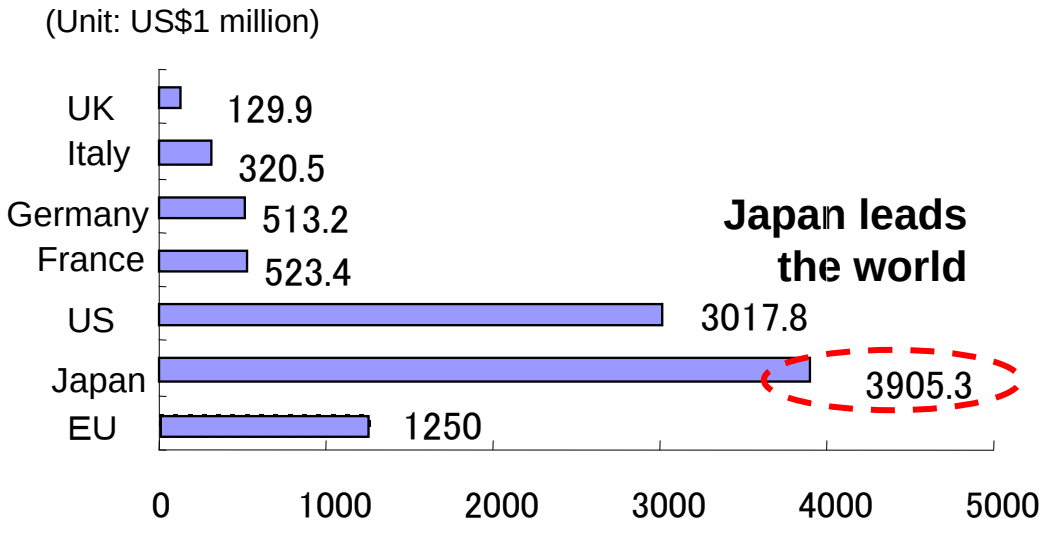
–Investment in energy-related R&D has been stagnating after steep reduction since 1980
–**Japan leads Public Investment in Research and Development in the Energy Sector**

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




Source: IEA

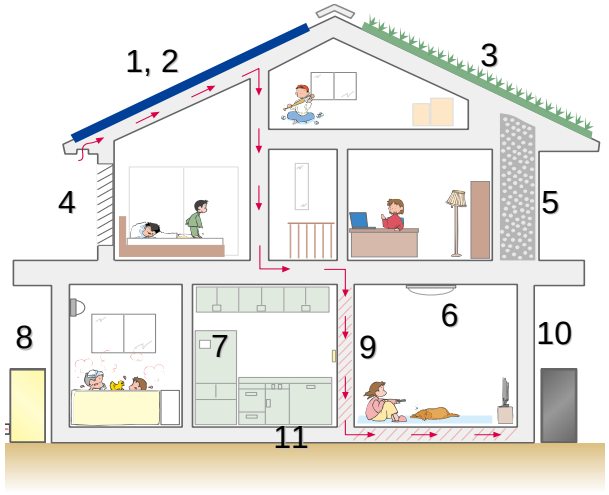
**Trend in Public Investment in Research and Development in the Energy Sector by Country (2005)**




Source: IEA; European Commission.

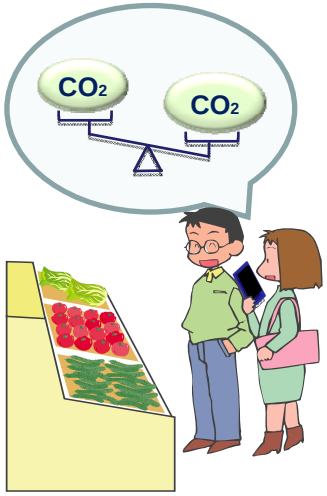
# Building a Low Carbon Society

**Technological Innovation** **Lifestyle Innovation** **Infrastructure Innovation**

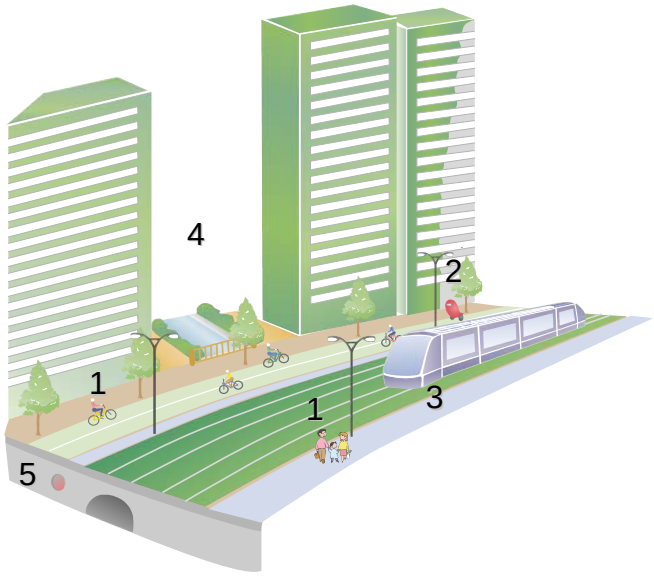



**Low Carbon Home**

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




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




**Low Carbon Urban Area**

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