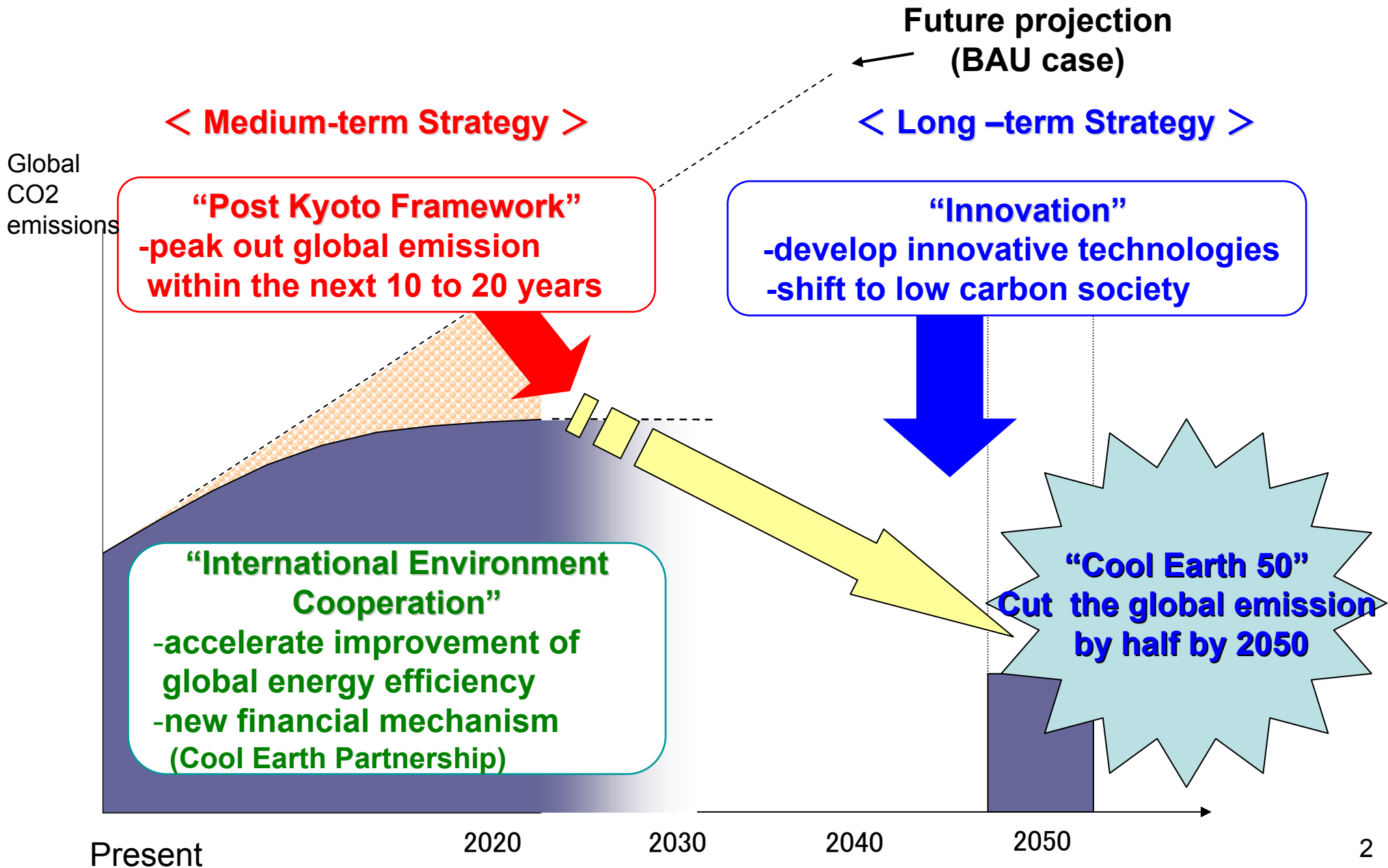


Fact Sheet on Climate Change

Special Address by Prime Minister
of Japan, Yasuo Fukuda

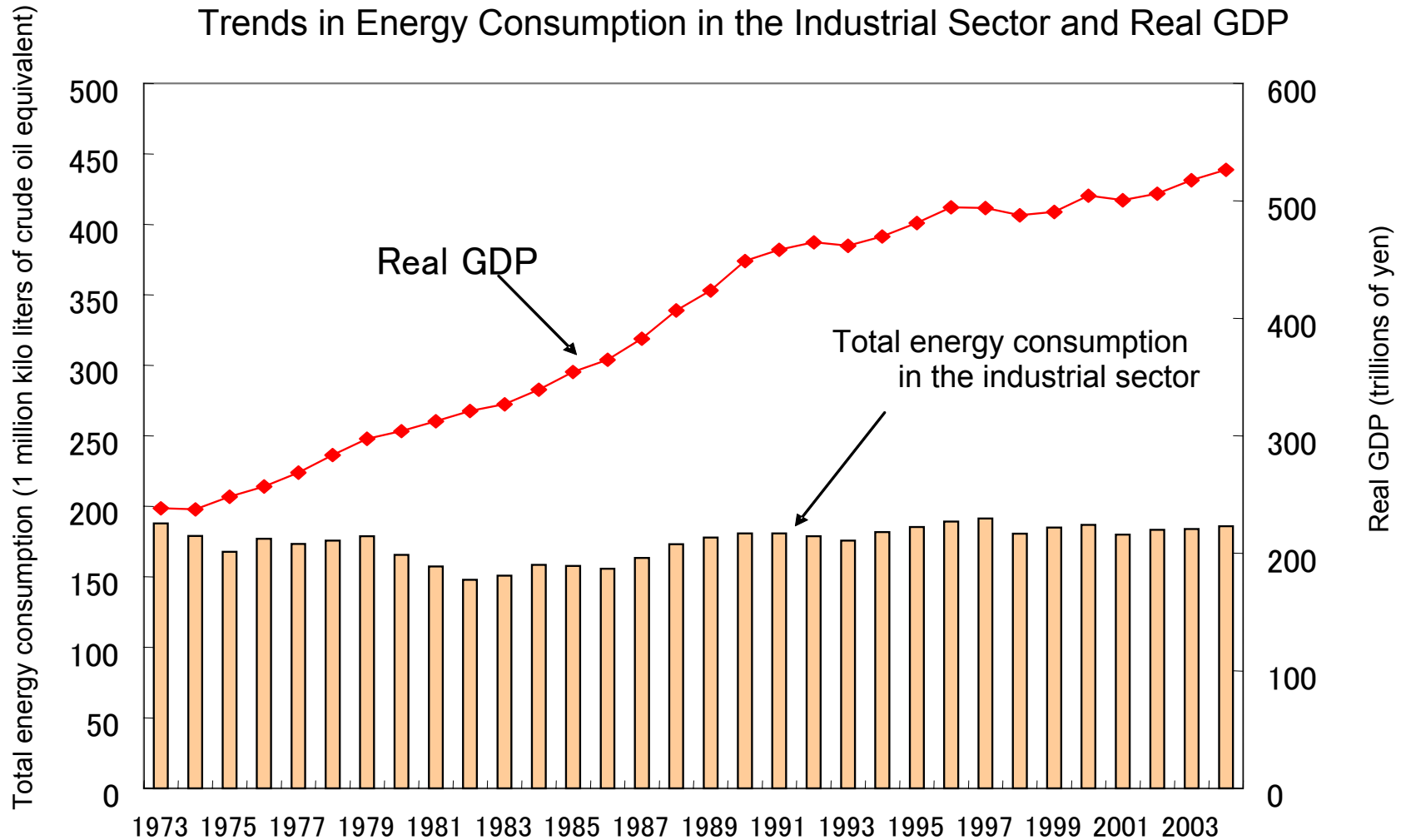
Jan 26, 2008

“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



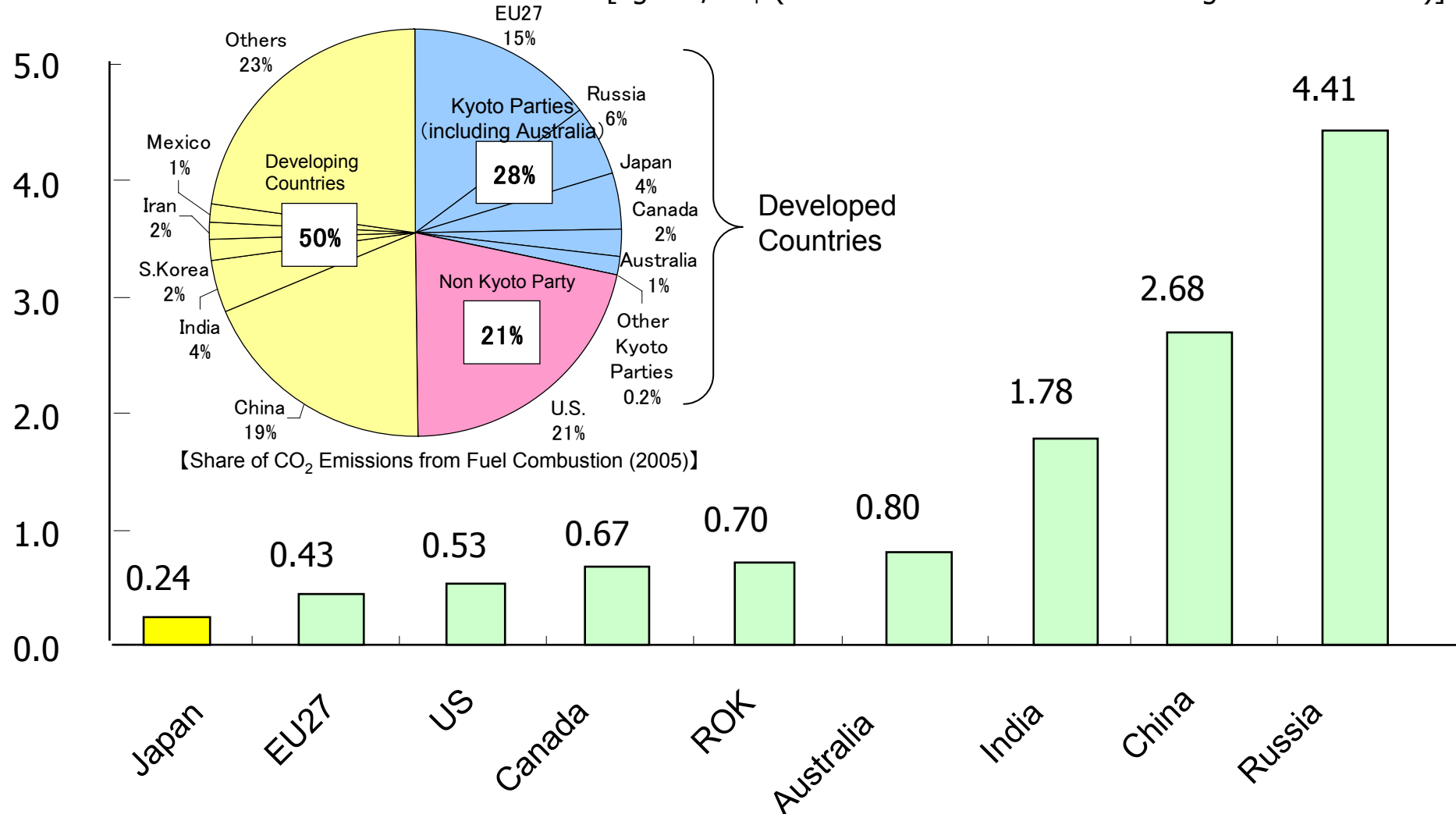
Source: General Energy Statistics (Agency for Natural Resources and Energy of the government of Japan)

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**

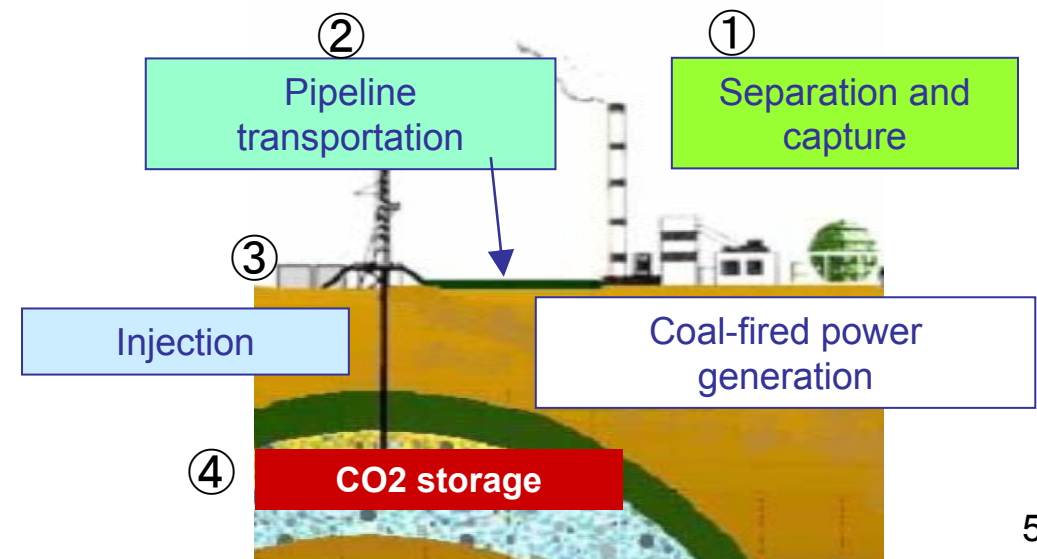
- High-efficiency and low-cost solar cells with new compounds/structures.
- Thin-film silicon technology for flexible solar cells



(Thin-film silicon solar cells)

Near zero-emissions coal-fired power generation

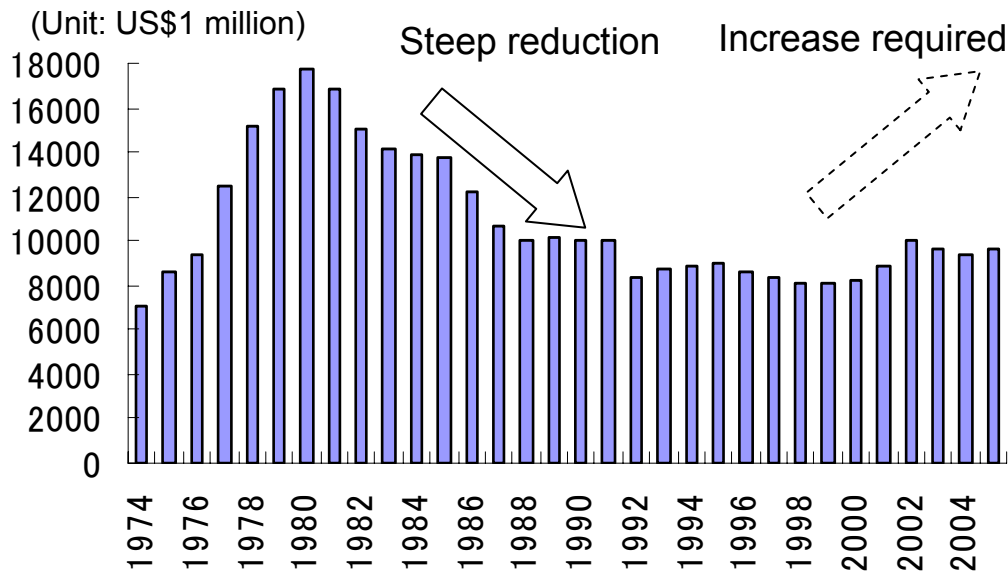
- ◆ Power generation efficiency : 43% → **around over 60% = cut CO₂ by 30%**
+
CCS(CO₂ capture and storage) technology
↓
Near zero-emission



Development of Innovative Technologies to achieve the Long-term Goal

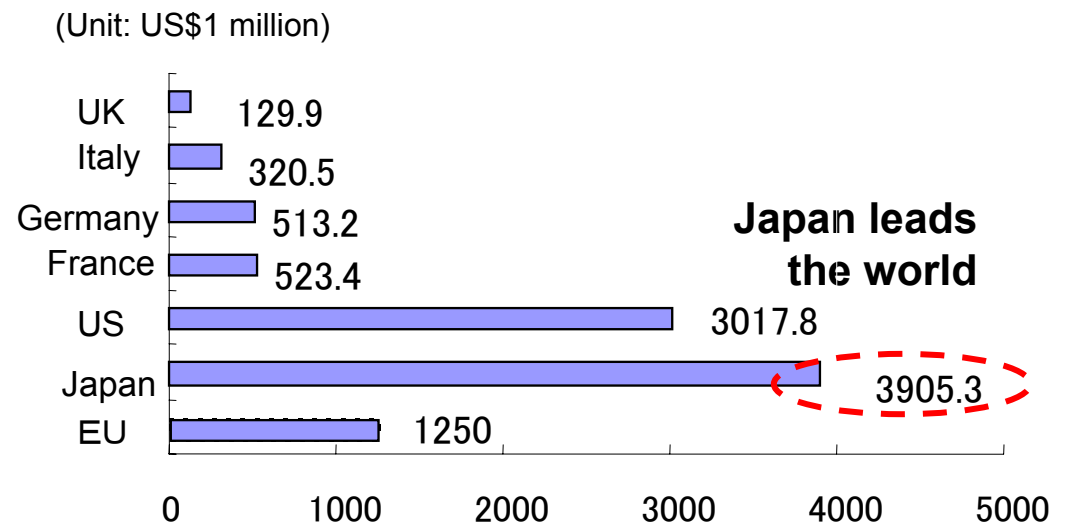
- Investment in energy-related R&D has been stagnating after steep reduction since 1980
- Japan leads Public Investment in Research and Development in the Energy Sector**

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



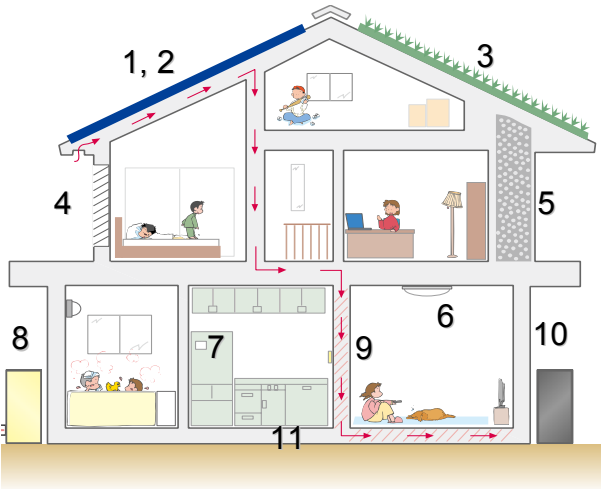
Technological Innovation



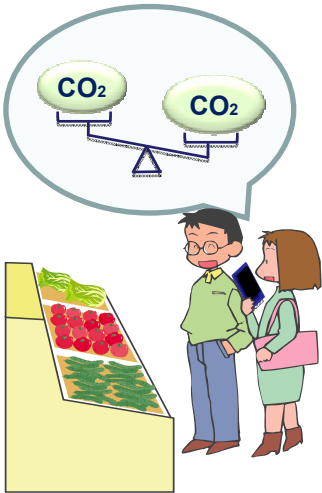
Lifestyle Innovation



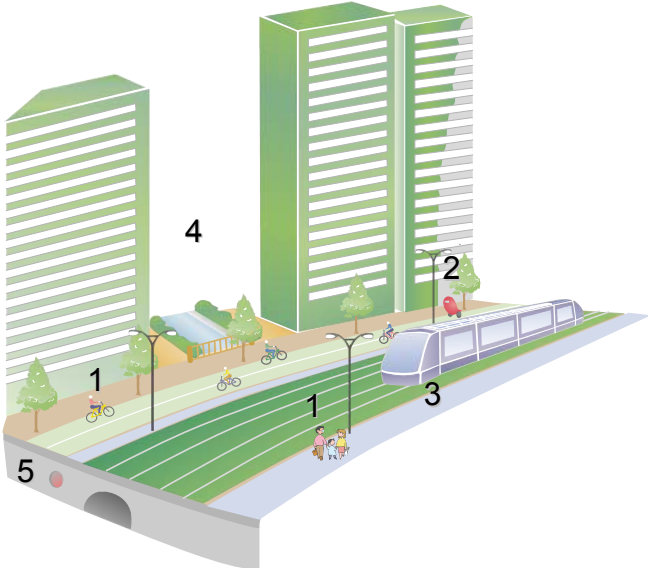
Infrastructure Innovation



Low Carbon Home



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