



Ministry of the Environment
Government of Japan

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Japan's Climate Change Policies

Yu Kamei

Low-carbon Society Promotion Office
Global Environment Bureau
Ministry of the Environment, Japan (MOE-J)

"Super Cool Biz" Campaign

**SUPER
COOLBIZ**

1 COOL FASHION

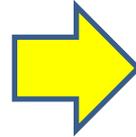


low productivity



Before (with jackets and ties)

uncomfortable



high productivity !



Comfortable !

After (polo shirts and aloha shirts are available at work)

2 COOL WORK



3 COOL HOUSE



4 COOL IDEA

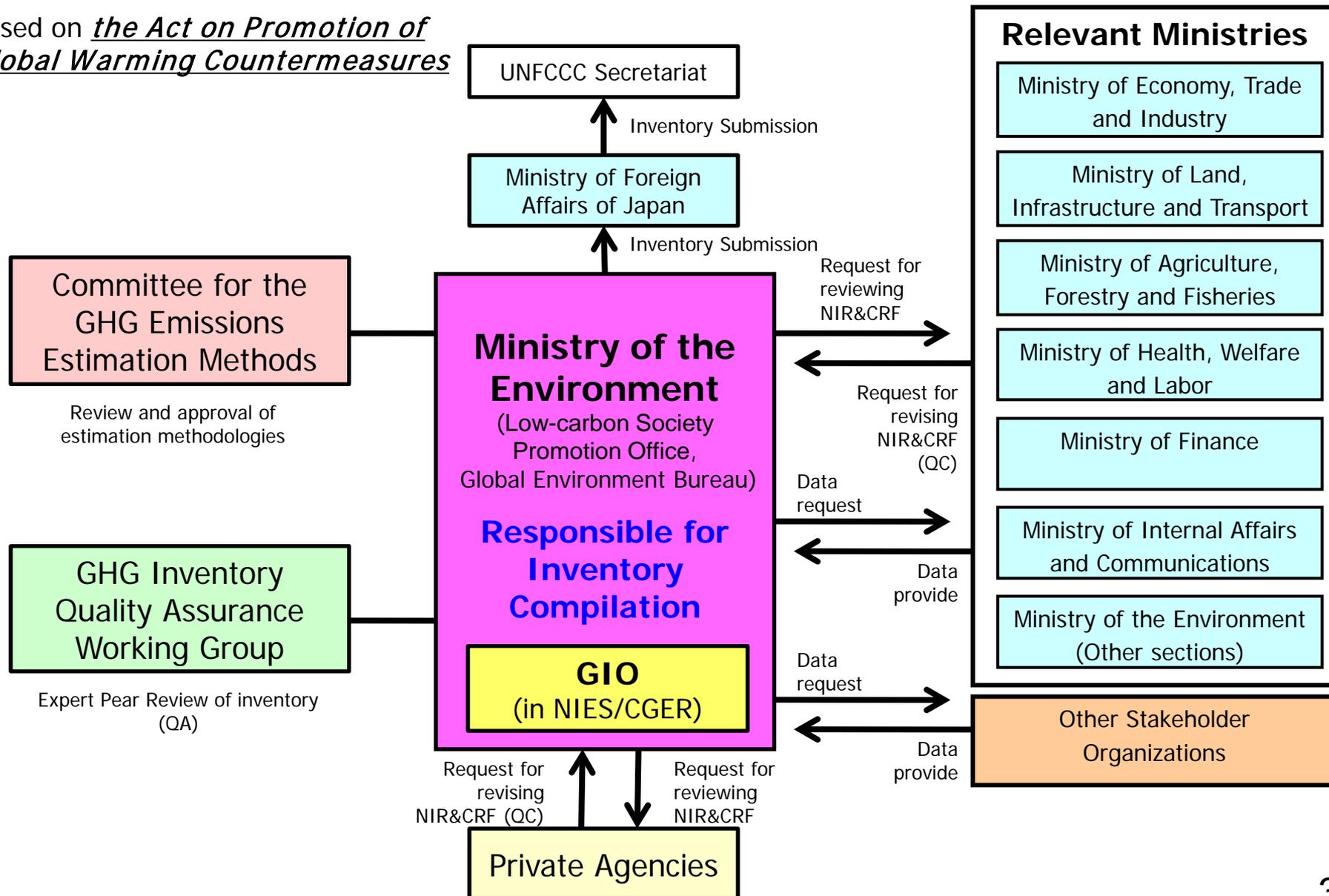


5 COOL SHARE

Japan's National Inventory System

Institutional Arrangement

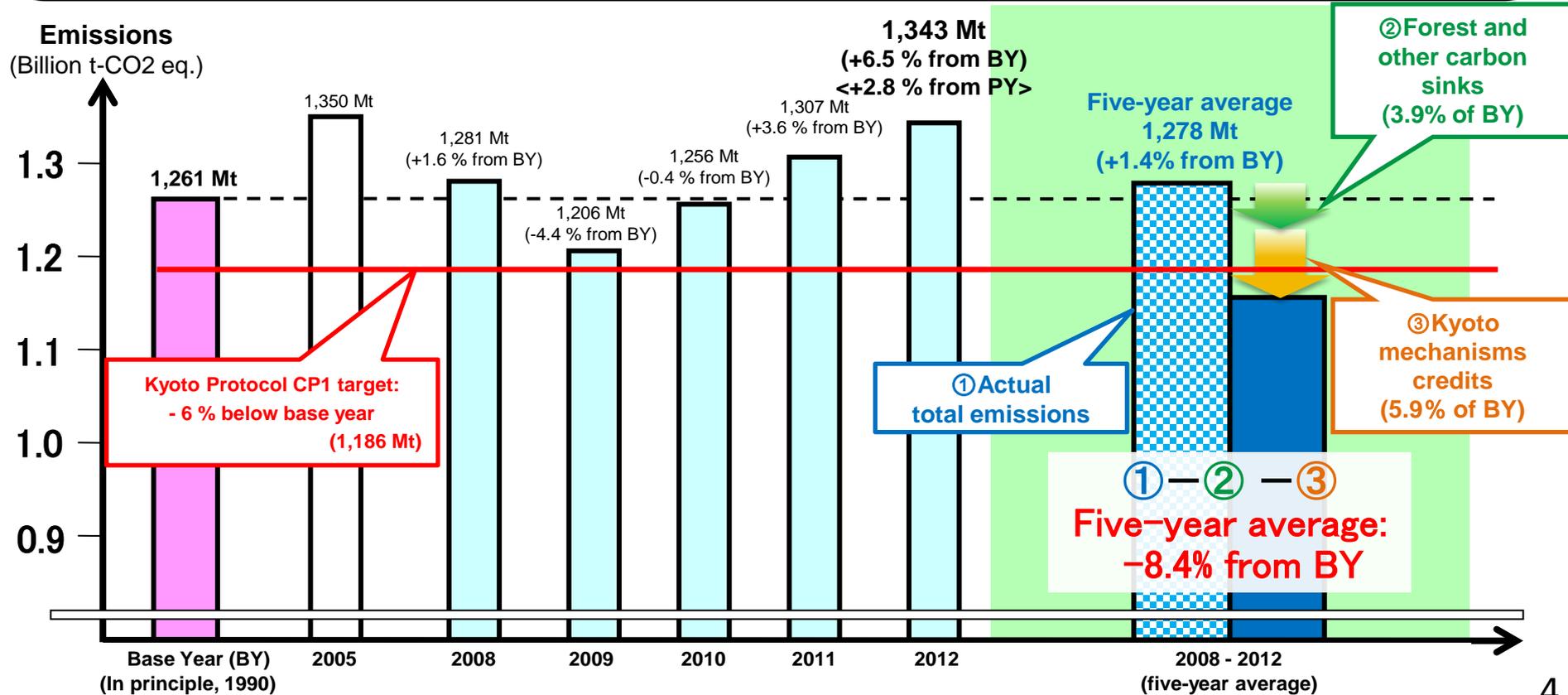
Based on *the Act on Promotion of Global Warming Countermeasures*



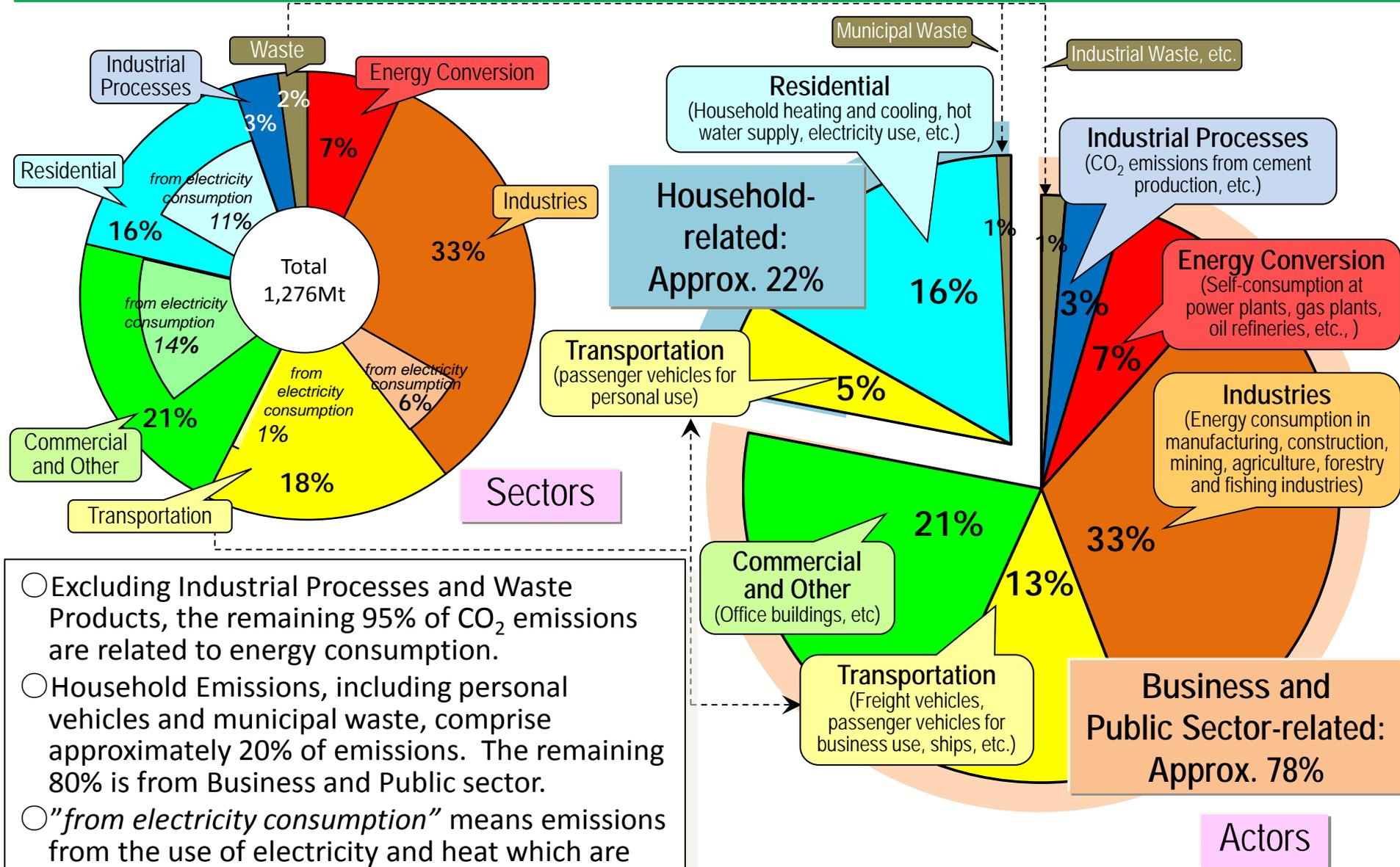
Japan's Greenhouse Gas Emissions and Achievements

Status for Emission Targets under the Kyoto Protocol

- Japan's total greenhouse gas emissions in FY2012 were **1,343 Mt CO₂ eq.** (an increase of 6.5% compared to the base year (BY) and 2.8% compared to the previous year (PY))
- If the **forest and other carbon sinks¹** and **Kyoto mechanisms credits²** are taken into account, the five-year average **for total emissions** during the first commitment period (CP1) of the Kyoto Protocol (FY2008-FY2012) shows an 8.4%³ decrease compared to the total emissions of the base year; therefore **Japan will have achieved its target for the CP1 of the Kyoto Protocol (-6 % below base year level).**



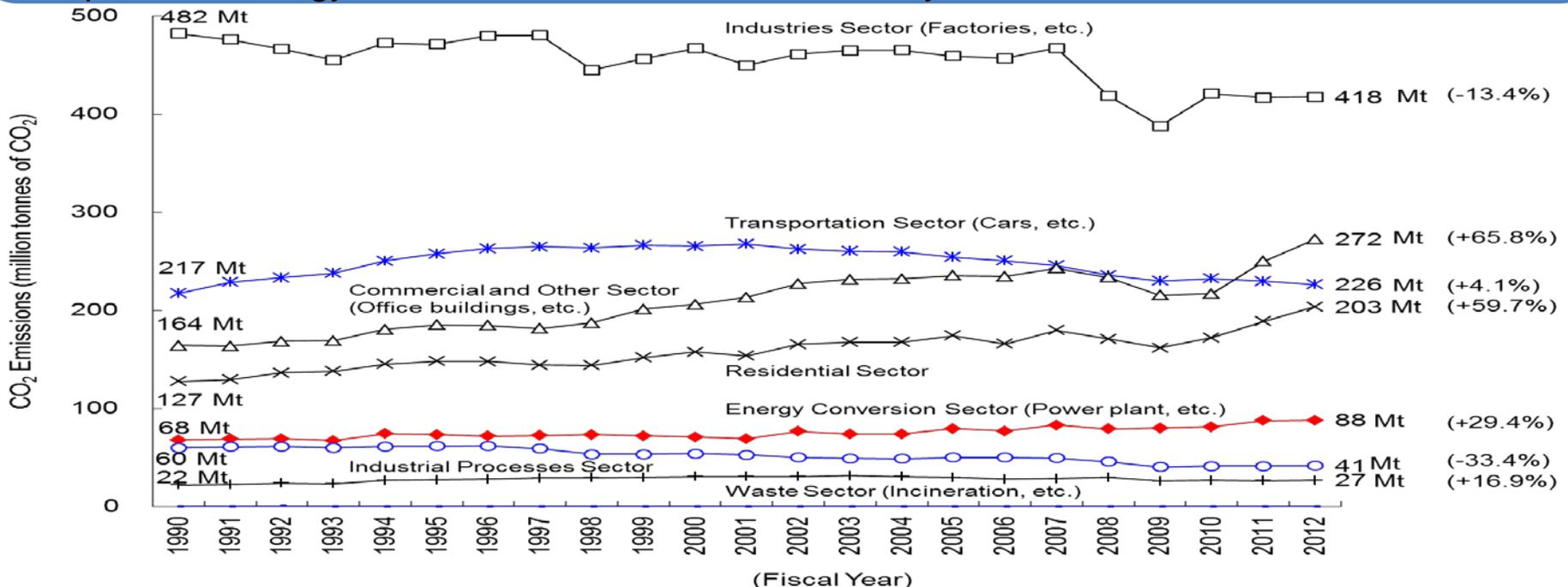
CO₂ emissions by Sectors and Actors (2012)



- Excluding Industrial Processes and Waste Products, the remaining 95% of CO₂ emissions are related to energy consumption.
- Household Emissions, including personal vehicles and municipal waste, comprise approximately 20% of emissions. The remaining 80% is from Business and Public sector.
- "from electricity consumption" means emissions from the use of electricity and heat which are purchased from companies such as electric companies, except private power generation.

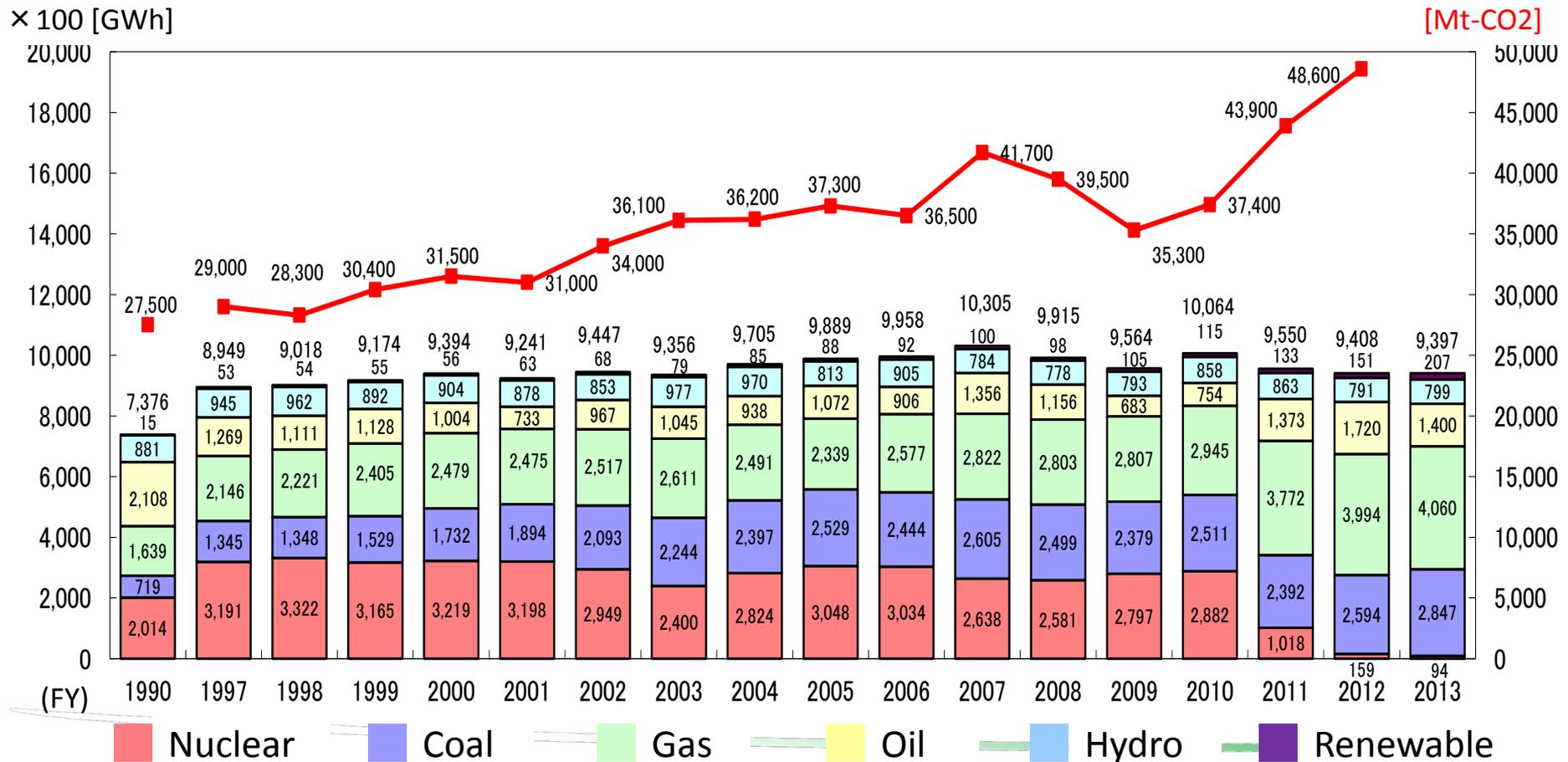
CO₂ emissions Trends by Sectors

- Emissions from industries sector have been **decreasing** as production volume dropped **because of financial crisis in late 2008**.
- Emissions from transportation sector have been **decreasing** by means of **improvement in transportation efficiency** etc.
- Emissions from commercial and other sector have been **increasing** by **expanding floor area** as well as **worsening emission factor** due to the increase in fossil fuel, power generation share after the earthquake.
- Emissions from residential sector have been **increasing** by growth in energy use in response to **increasing number of household** as well as **worsening emission factor** due to the increase in fossil fuel power generation share after the earthquake
- Emissions from energy conversion sector (power plant etc.,) have been increasing in response to energy demand increase such as electricity.



Electricity generation in Japan

- After the Great East Japan Earthquake, nuclear power plants have been shut down and the share of the nuclear power generation dropped drastically.
- On the other hand, power generation from fossil fuel reached approximately 90% of total domestic power generation.



Japan's new emission reduction target in 2020

- Japan's greenhouse gas emission is set as **3.8% emission reduction in 2020 from the 2005 level** in order to implement Cancun agreement, and also based on prime minister's designation of zero-based review of 25% reduction target by COP19
- **This is a target at this point, which has not yet taken into account the emission reduction effect resulting from nuclear power**, given that the energy policy and energy mix, including the utilization of nuclear power are still under consideration
- A firm target, based on further review of the energy policy and energy mix will eventually be set.

【Principles of the new target】

The new target will be achieved by implementing the measures listed below comprehensively, while attaining the economic growth goal set by the current government

- (1) **20% improvement in energy intensity** which is at the world leading level
- (2) Improvement of emission factor of electricity by **renewable energy** etc
- (3) **Strengthening fluorocarbons countermeasures** based on amended law on fluorocarbons
- (4) Application of the "**Joint Crediting Mechanism (JCM)**"
- (5) Utilization of **carbon sink of forest**

【Actions in response to the new target】

Register the new target to United Nations Framework Convention on Climate Change Secretariat (29 Nov).
Implement mitigation measures steadily, through Biennial Report submission and International review based on Cancun agreement

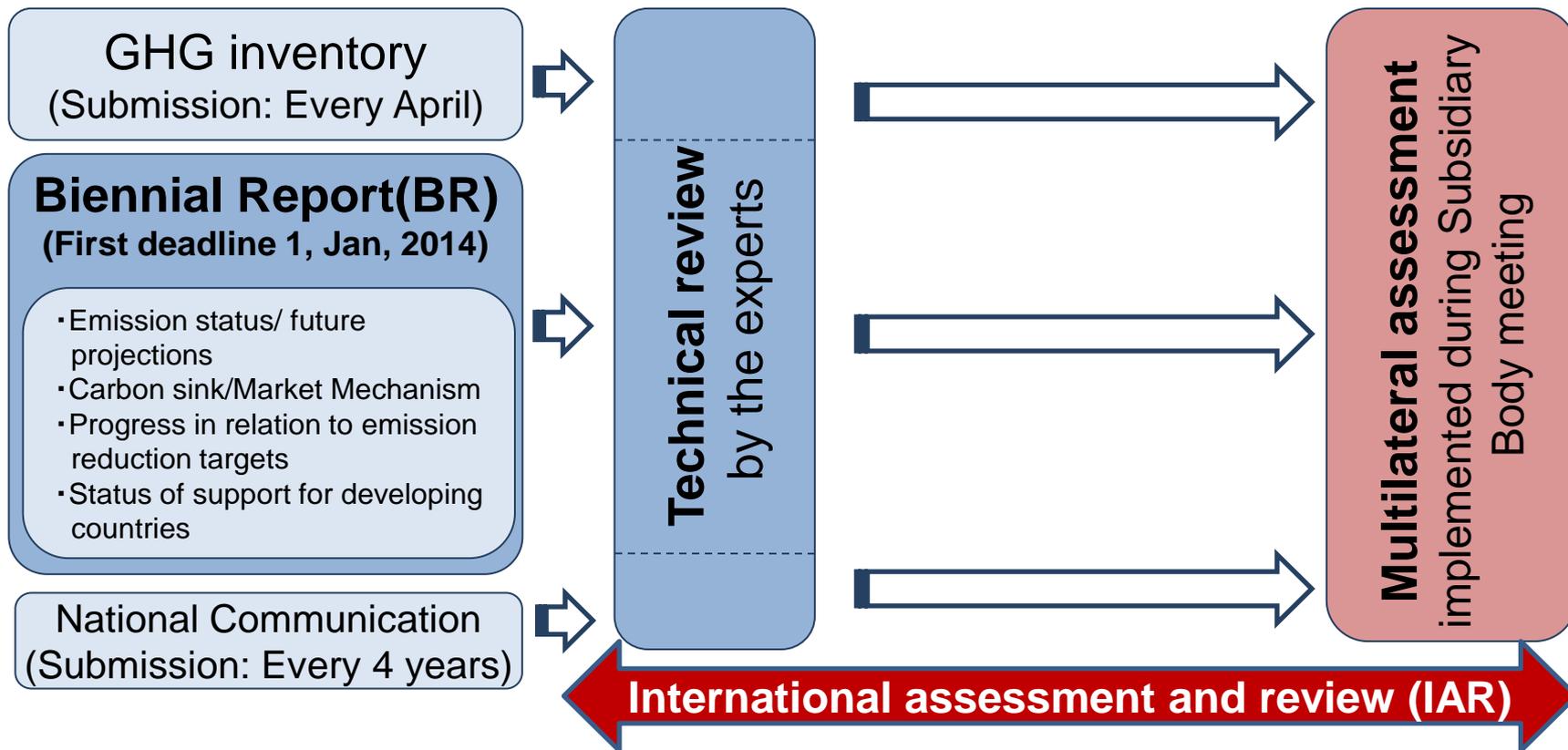
Submission of BR1 and NC6

- Developed country parties shall submit 1st Biennial Report (BR1), which includes policies and measures on mitigation actions of each country, and 6th National Communication (NC6) to the secretariat by 1 January 2014.
- Japan developed BR1 and NC6 based on the Japan's new greenhouse gas emission reduction target which was registered to the secretariat last November.

BR	NC
—	Chapter 1 National Circumstances Relevant to Greenhouse Gas Emissions and Removals
Chapter 1 GHGs Emissions and Trends	Chapter 2 Trends in GHG Emissions and Removals
Chapter 2 Quantified economy-wide emission reduction target	—
Chapter 3 Progress in achievement of quantified economy-wide emission reduction targets and relevant information	Chapter 3 Policies and Measures
Chapter 4 Projection	Chapter 4 Projections and the Total Effect of Policies and Measures
—	Chapter 5 Vulnerability Assessment, Climate Change Impacts, and Adaptation Measures
Chapter 5 Provision of financial technological and capacity-building support to developing country parties	Chapter 6 Fund Source and Technology Transfer
—	Chapter 7 Research and Systematic Observation
—	Chapter 8 Education, Training, and Public Awareness

MRV based on Cancun Agreements (Developed countries)

Reporting and assessment of the progress towards target of developed countries

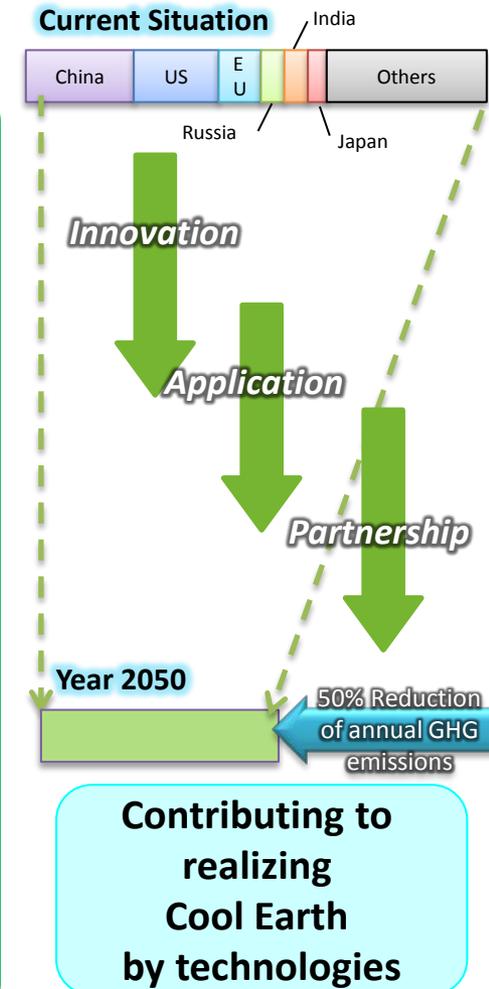


ACE: Actions for Cool Earth

Japan's Diplomatic Strategy for Countering Global Warming

Basic Concept

- Warming of the climate system is unequivocal. (IPCC Fifth Assessment Report)
- Concrete actions are needed for:
 - **50% reduction of global GHG emissions**
 - **80% reduction for developed countries by 2050**
- Actions for “Cool Earth” are:
 - Innovation of Low Carbon Technologies
 - Application of existing technologies
 - Partnership with various stakeholders
- Overcoming the aftermath of the Great East Japan Earthquake and the nuclear accident.



Package of Support Programs for NAMA

Nationally Appropriate Mitigation Actions (NAMA)

① Strategy

- Scenario & Planning

② Technology

- Energy saving
- Renewable energy

③ System

- MRV
 - Inventory, NC, BUR



Low Carbon
Society Scenario

NAMA
Guidebook

JCM
(Joint Crediting Mechanism)

- Capacity Building
- Feasibility Studies
- Model projects
- Finance scheme

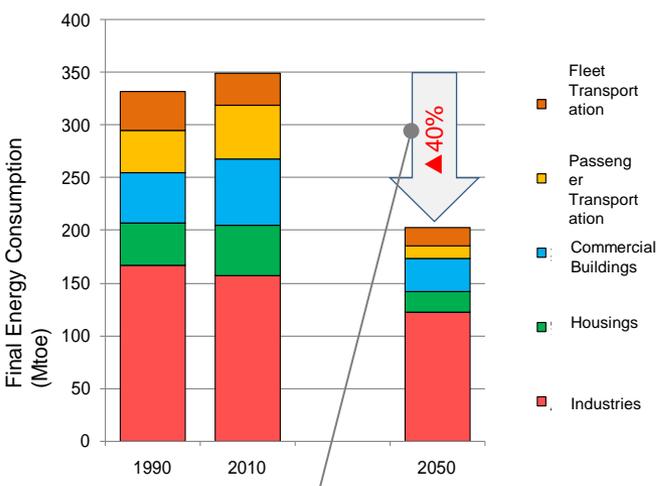
WGIA
(Workshop on
Greenhouse Gas
Inventories in Asia)

City- to- city Cooperation

Japan's GHG reduction goal in 2050

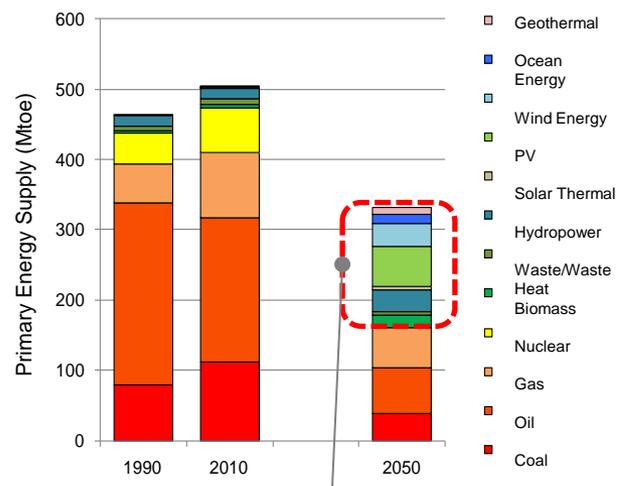
- Japan will pursue the goal of **80% reduction in GHG emission by 2050** in order to fulfill the responsibility as an industrialized country, as is stated **in the fourth Basic Environmental Plan** (revised in April 2012)
- Global Environment Committee presented the picture of 80% GHG reduction in 2050 as follows:
 - In the end-use sector, large-scale energy saving and electrification would be realized particularly in Building and Transportation sectors, which leads to approx. 40% reduction in final energy consumption.
 - Energy would be decarbonized, which leads to renewable energy deployment accounting for approx. half of primary energy supply.
 - 200 Mt-CO₂ would be captured and stored per year.

Final Energy Consumption



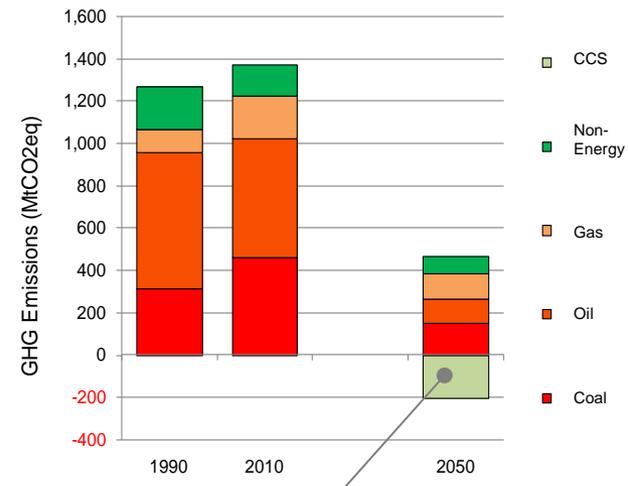
Innovative Energy Saving

Primary Energy Supply



Thorough Deployment of Renewable Energy

GHG Emissions



Capture and Storage of CO₂

Cited from: "Report on Policies and Measures beyond 2013"
 by Global Environment Committee under the Central Environment Council (June 2012)

~Toward Zero Carbon Emission Thermal Power Plants~ Carbon dioxide Capture and Storage (CCS)

- In order to achieve Japan's long term target to reduce greenhouse gas emissions by 80% by 2050, zero carbon power plants are essential.
- Especially, coal fired power plants, etc., continue to release large amounts of CO2 during its long lifetime, are recommended to implement CCS for reducing CO2 emission.

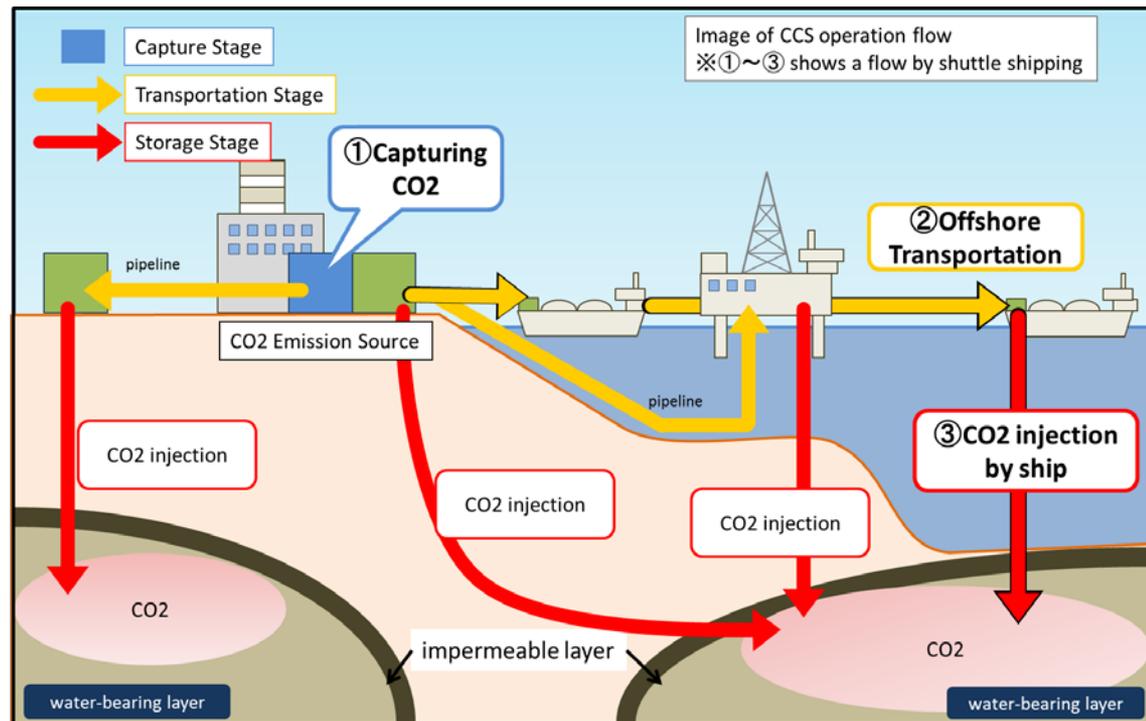
New Project by Ministry of the Environment, Japan Introduction and Promotion of Zero Carbon Emission Power Plants through CCS.

1. Investigation of potential CO2 storage site (A joint project with METI)

- Identify potential CO2 storage sites in waters surrounding Japan, including deep sea areas.

2. Feasibility Study for the introduction of environmentally friendly CCS technology

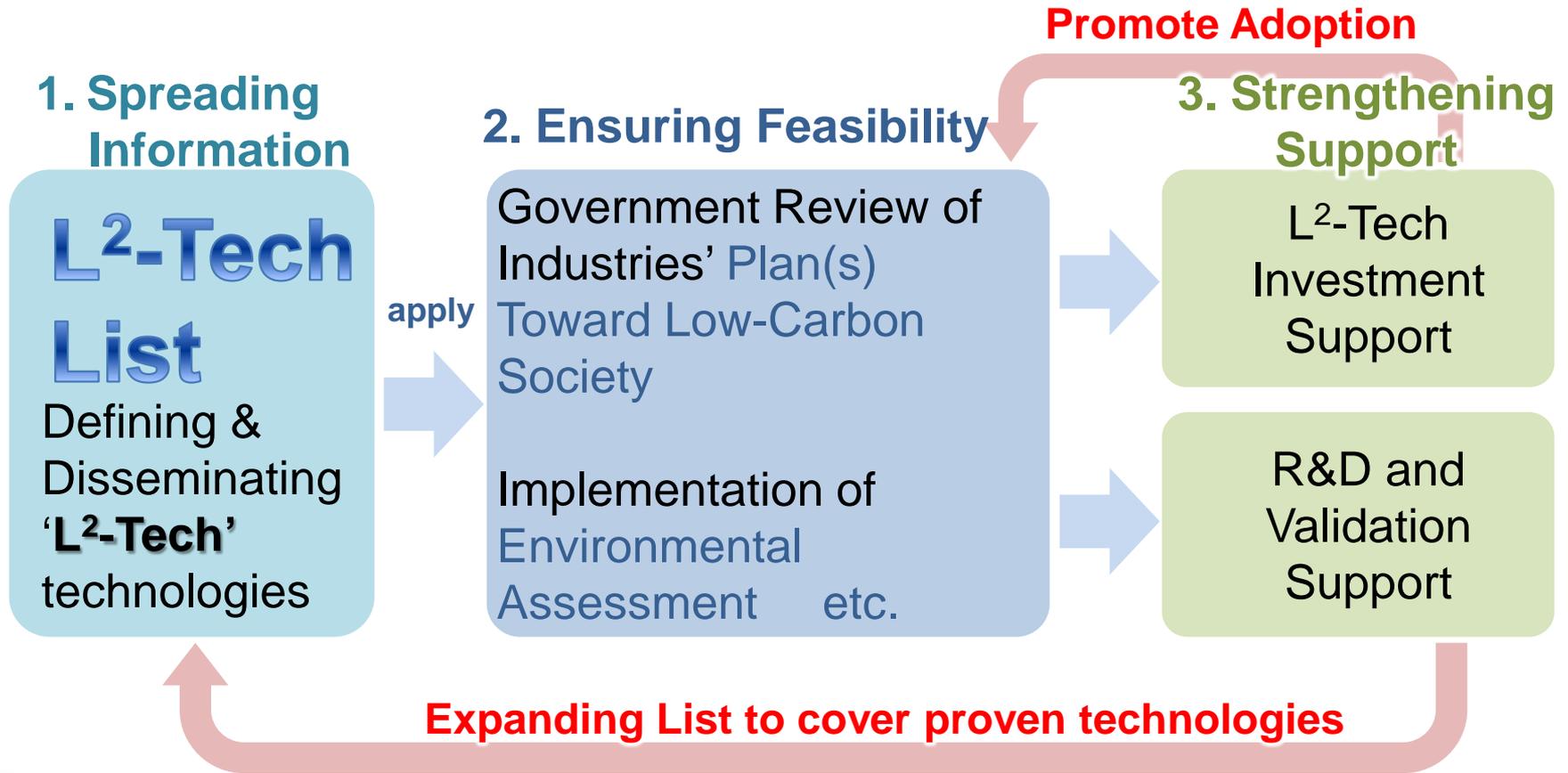
- Study an integrated transportation and storage system based on shuttle shipping.
- Assess environmental impact of CO2 absorbent.



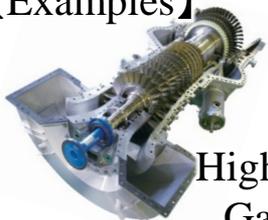
*CCS: Carbon dioxide Capture and Storage

L²-Tech-JAPAN Initiative

“L²-Tech” = Leading and Low-Carbon Technologies



【Examples】



High efficiency Gas Turbine



High efficiency Turbo freezer

Creation of Feedback mechanism to develop, implement and market-adopt L²-Tech technologies

Launch of a New Climate Change Campaign, "Fun to Share"



- MOE-J has started its new climate change campaign called "Fun to Share" with a view to realizing a low-carbon society.
- "Fun to Share" aims to develop lifestyle innovations through cooperation between companies, organizations, local communities and individuals as well as the sharing and dissemination of information, technology and wisdom in a progressive manner that leads to the building of a low-carbon society.



A scene from the "Fun to Share" kick-off event



↑ Local campaigns ↓



Thank you for your attention