Challenge Zero

— New Action by Japanese Companies in the Field of Climate Change —

July 31, 2020

Keidanren

Policy & Action

Outline

1. About Keidanren
2. Keidanren's Actions on Climate Change
3. Japanese Government's Actions
4. About "Challenge Zero"
5. Moving Forward

1．About Keidanren

Brief Overview

Keidanren
Japan Business Federation

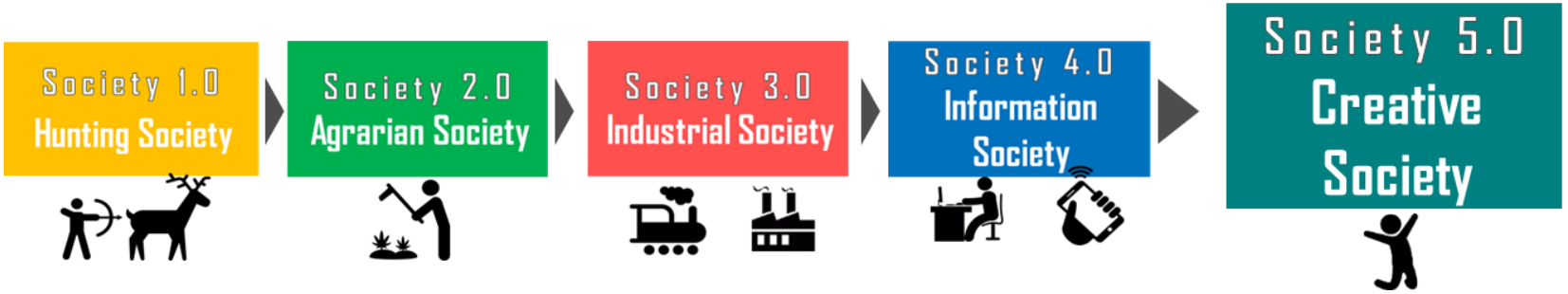
- Keidanren is the one of major sector wide economic organizations in Japan, representing mainly big business.
- Chairman: Hiroaki Nakanishi (Executive Chairman, Hitachi Ltd.)
- Membership: 1,444 companies, 109 industrial associations, and 47 regional economic organizations (as of April 1, 2020)
- Keidanren took the presidency and hosted B20, themed on “Realizing Society 5.0 for SDGs”, in March 2019.

<International Front>

- Member of B7 and B20
- Japanese representative of Business and Industry Advisory Committee to the OECD(BIAC)
- Regional partner of World Business Council for Sustainable Development (WBCSD)

Our Vision of a Future Society

Society 5.0



Digital transformation × Imagination & Creativity of diverse people

Problem solving

Value creation

Society 5.0 for SDGs

Society 5.0

1. Cities and Regions
2. Energy
3. Disaster Prevention
4. Healthcare
5. Agriculture and Food
6. Logistics
7. Manufacturing and Services
8. Finance
9. Public Services

Source:
http://www.unic.or.jp/activities/economic_social_development/sustainable_development/2030agenda/sdgs_logo/

Joint Research on “Society 5.0 for SDGs” by Keidanren, University of Tokyo and GPIF

Society 5.0 for SDGS

Keidanren Policy & Action — Economic organization

東京大学 THE UNIVERSITY OF TOKYO — University

GPIF — Investor

- Outline:
  Keidanren, University of Tokyo and GPIF has a joint research on realizing “Society 5.0 for SDGs” from June 2019 to March 2020.

- Task Force Members:
  Takeshi Kunibe, Chair, Sumitomo Mitsui Financial Group
  Takashi Hibino, Chair, Daiwa Securities Group
  Masaya Futamiya, Chair, Sompo Japan Insurance
  Makoto Takahashi, President, KDDI
  Kiichi Fujiawara, Professor, the University of Tokyo
  Hiroshi Naka, Professor, the University of Tokyo
  Hiromichi Mizuno, (former)Chief Investment Officer, GPIF

The Action Plan by Keidanren, U Tokyo and GPIF

(26 March, 2020)

- Hiroaki Nakanishi, Chair of Keidanren(center)
- Makoto Gonokami, President of UTokyo(right)
- Norihiro Takahashi, President of GPIF(left)

Action Plan

(Abstract)

■ Keidanren

- Encouraging companies to achieve Society 5.0
- Developing **financial products (investment trust, etc.) related to Society 5.0**

■ UTokyo

- **Starting to conduct research on the desirable socioeconomic system that supports Society 5.0**
- **Cultivating talented people to lead Society 5.0 as professionals and entrepreneurs**

■ GPIF

- Consideration of **incorporating Society 5.0 and SDGs into its Investment Principles** and the like
- Promoting constructive engagement about Society 5.0 to our asset management companies

2. Keidanren's Actions on Climate Change

Keidanren's Environment Initiatives

Climate Change

- Keidanren's Commitment to a Low Carbon Society
- Contributing to Avoided Emissions through the Global Value Chains
- Actions by the Business Community on Long-tern Global Warming Countermeasures up to 2050
- **Challenge Zero**

Today's topic

Resource Circulation

- Voluntary Action Plan for Establishing a Sound Material-Cycle Society
- Contributing to the UN SDGs through Measures Addressing Plastic Waste Issues "TORIKUMI"

Integrated Environment Corporate Management

Biodiversity

- Declaration of Biodiversity by Keidanren
- Support for NPOs, as well as communication between NPOs and companies.

Keidanren Global Environment Charter

April. 23, 1991

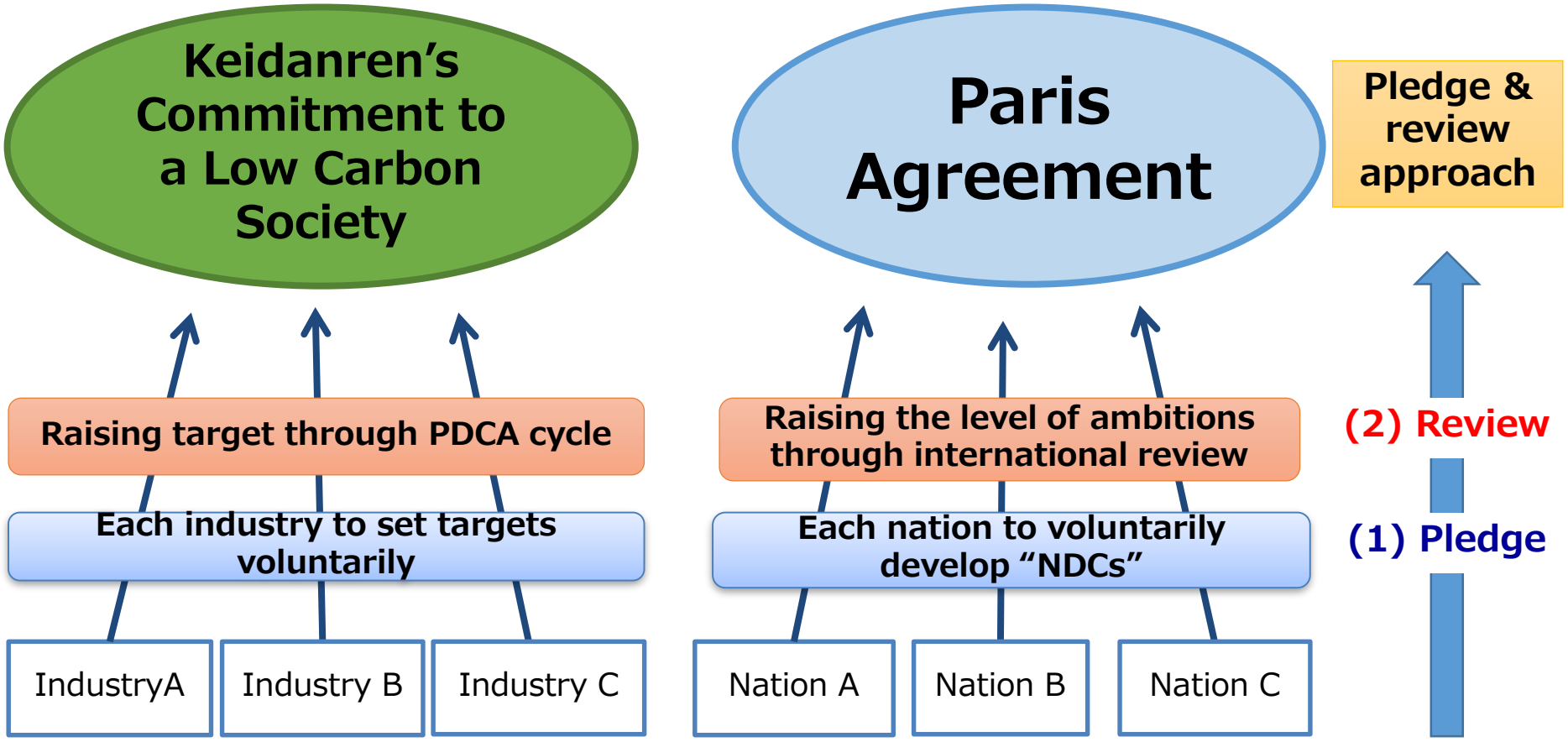
Keidanren's Progress on Global Warming Countermeasures

- Keidanren took the first pioneering steps on Global Warming Countermeasures well ahead of governmental policy decisions.

1991 April	**Presentation on Keidanren Global Environment Charter**
1992 June	Adoption of the Framework Convention on Climate Change
1997 June	**Presentation on the Keidanren Voluntary Action Plan on the Environment**
1997 December	Adoption of Kyoto Protocol (COP3)
2013 January	**Announcement of the first phase of the plan for Keidanren's Commitment to a Low Carbon Society (FY 2020 targets)**
2013 March	Current Policy of Global Warming Countermeasures (Decision of Global Warming Prevention Headquarters)
2013 April	Starting the plan for Keidanren's Commitment to a Low Carbon Society (concept and overview)
2015 April	**Announcement of the second phase of the plan for Keidanren's Commitment to a Low Carbon Society (FY 2030 targets)**
2015 July	Submission of Japan's Intended Nationally Determined Contribution (INDC) to the UN
2015 December	Adoption of the Paris Agreement (COP21)
2016 November	Entry into force of the Paris Agreement
2018 November	**Announcement of Keidanren's Concept Book "Contributing to Avoided Emissions through the Global Value Chain"**
2019 January	**Announcement of Keidanren's "Actions by the Business Community on Long-term Global Warming Countermeasures up to 2050"**
2019 June	Japan's Long-term Strategy under the Paris Agreement (Cabinet decision)
2020 June	**Starting "Challenge Zero"**

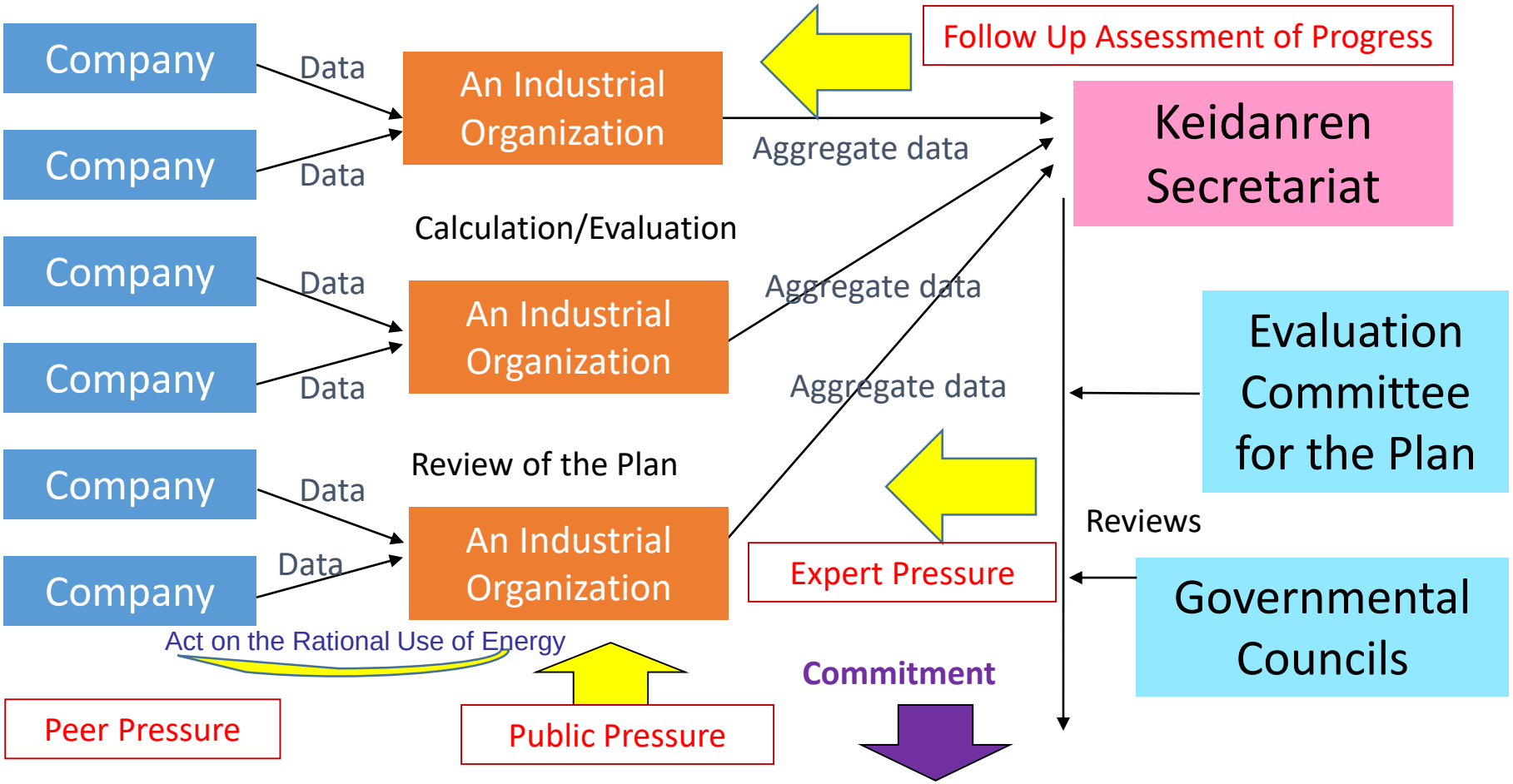
Voluntary Measures and “Pledge and Review ”of Paris Agreement

- A system where the participant promises to engage in climate change counter-efforts (pledge) then receives evaluations at regular intervals (review).
- This system is common to the Keidanren’s Commitment to a Low Carbon Society and the Paris Agreement.

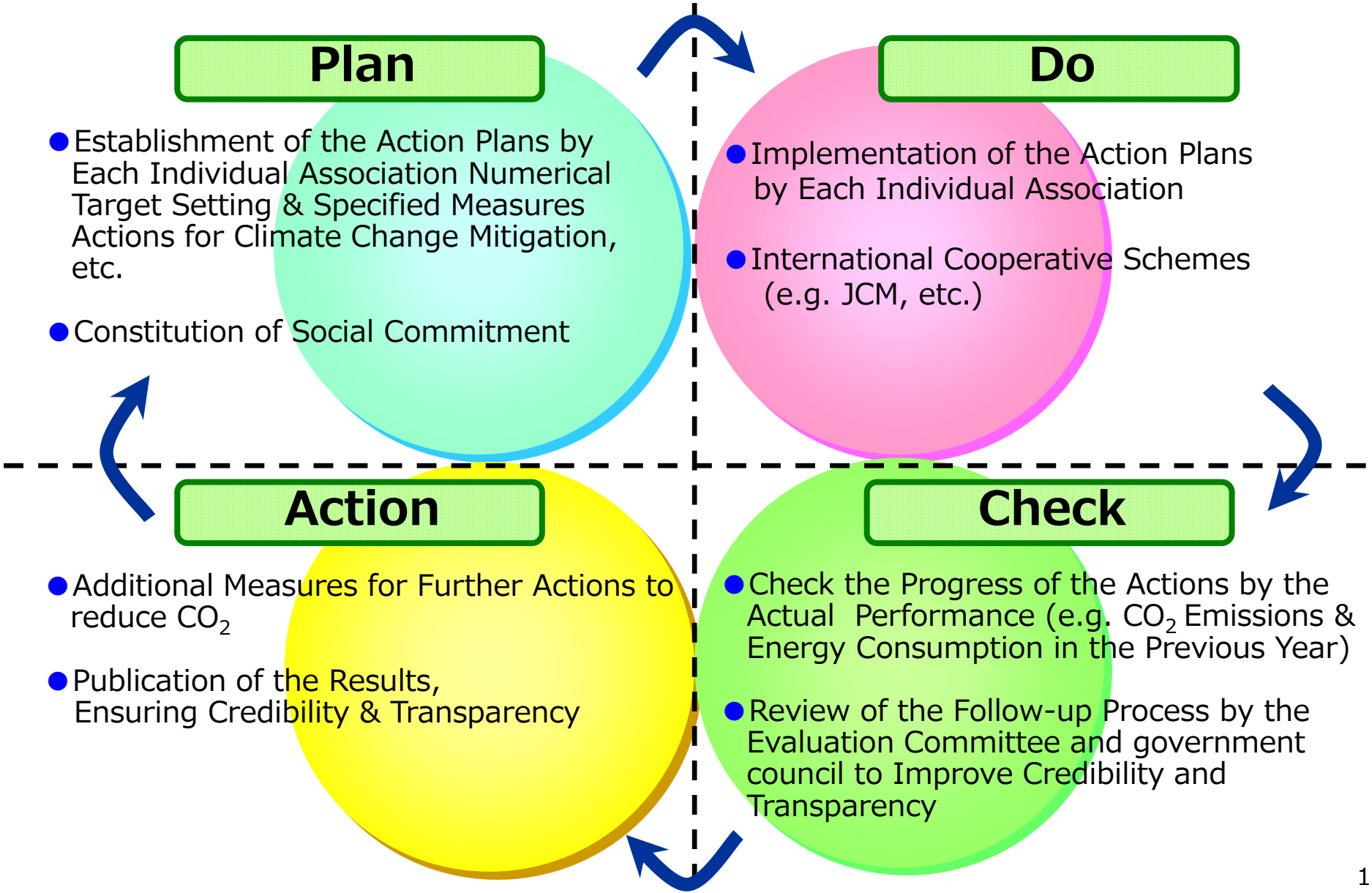


Review Process of Keidanren's Action Plan

- The assessment of progress is conducted every year. The overall performance is publicized by Keidanren Secretariat.



PDCA Cycle


Plan
Establishment of the Action Plans by Each Individual Association Numerical Target Setting & Specified Measures Actions for Climate Change Mitigation, etc.
Constitution of Social Commitment
Do
Implementation of the Action Plans by Each Individual Association
International Cooperative Schemes (e.g. JCM, etc.)
Check
Check the Progress of the Actions by the Actual Performance (e.g. CO_2 Emissions & Energy Consumption in the Previous Year)
Review of the Follow-up Process by the Evaluation Committee and government council to Improve Credibility and Transparency
Action
Additional Measures for Further Actions to reduce CO_2
Publication of the Results, Ensuring Credibility & Transparency

Positioning in Japan's Climate Change Countermeasures

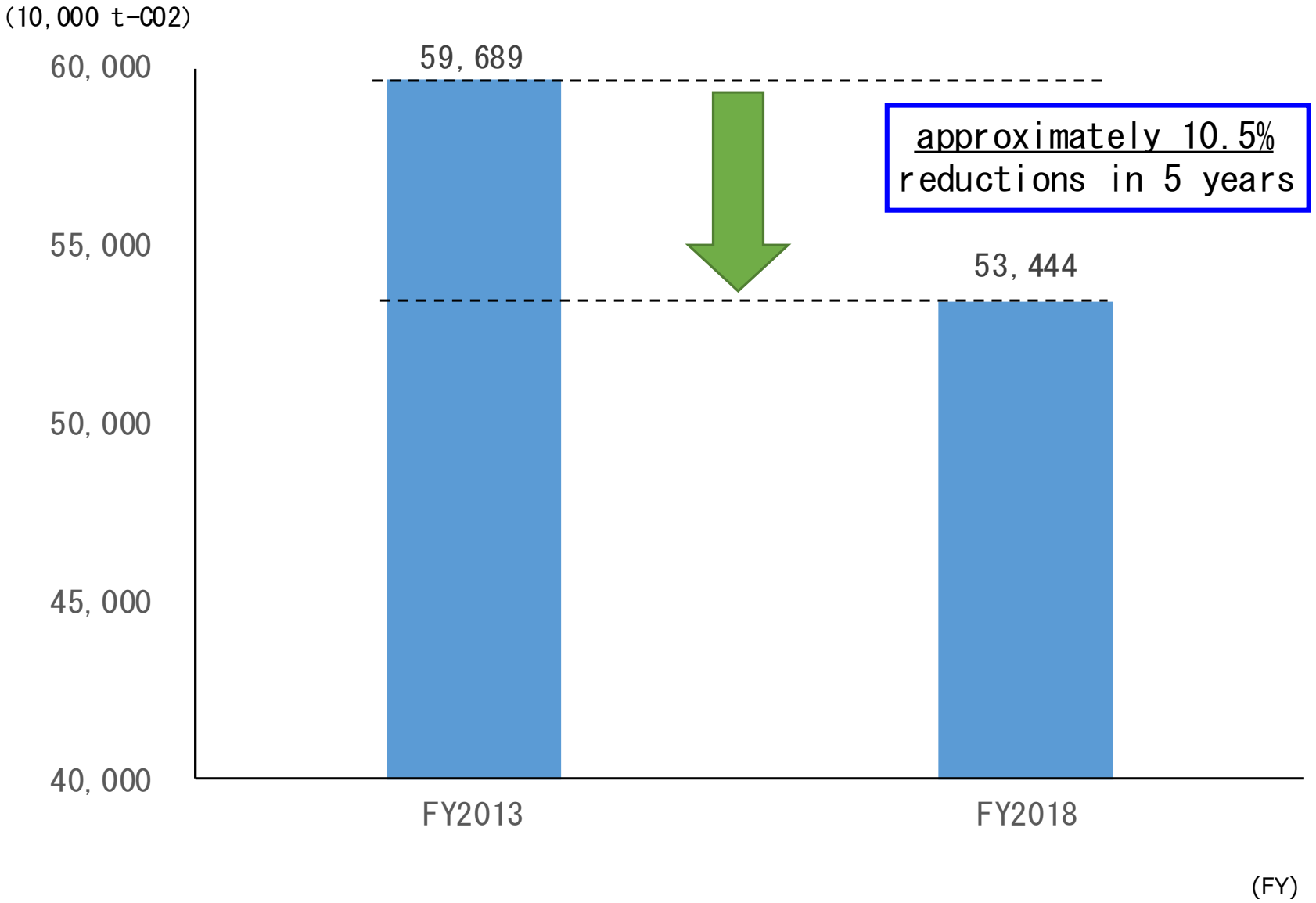
- Keidanren's proactive efforts have been positioned as a **pillar** of Japan's climate change countermeasures.

Japan's Global Warming Countermeasure Plan (Cabinet decision in May 2016)

Promotion of voluntary initiatives

Keidanren and other industries have taken the initiative in formulating plans to reduce emissions, and have made great efforts. Based on the results of the evaluation and verification of the efforts in the voluntary action plan, in order to steadily implement emission reductions to achieve the reduction targets in the Global Warming Countermeasure Plan, we encourage businesses to continue to promote voluntary efforts as a **central role** in the industrial sector.

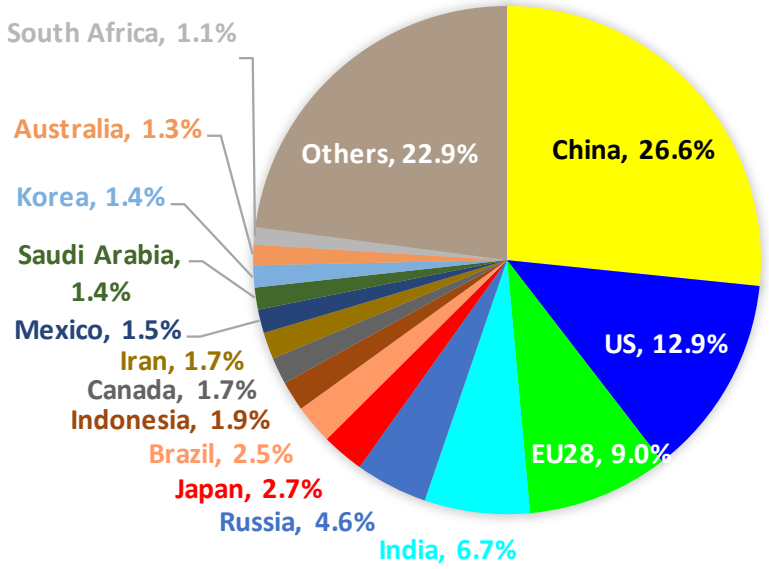
Results of Keidanren's Commitment to a Low Carbon Society (2013-2018)



Trends in GHG Emissions (Worldwide)

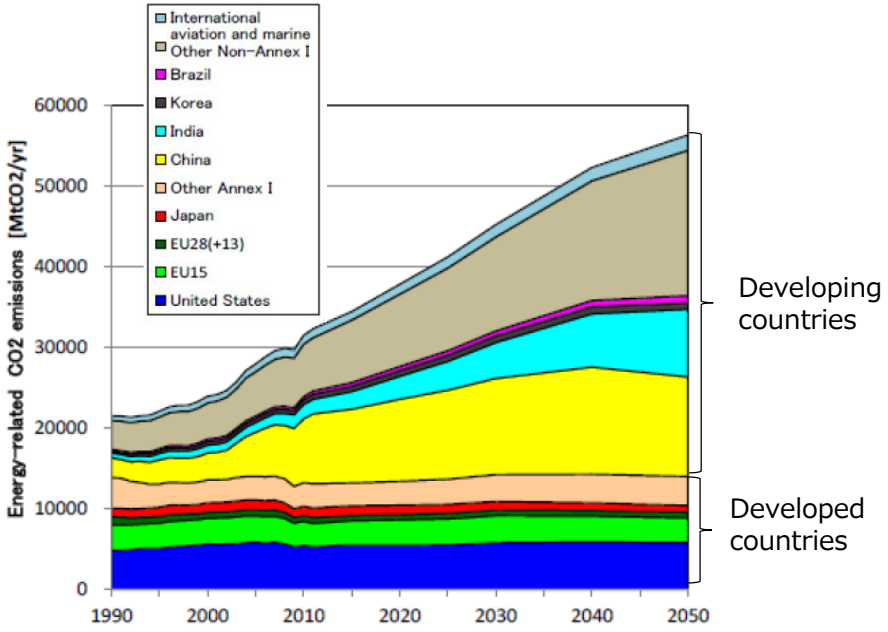
- Global GHG emissions in 2018 were approximately 55 billion tons. Japan accounts for 2.7%.
- Since 2000, there has been a large increase in developing countries such as China and India, which maintain a high economic growth rate, and this trend is expected to continue in the future.

Share of GHG emissions by countries (2018)



Source: Agency for Natural Resources and Energy

Forecast of GHG emissions by countries (until 2050)



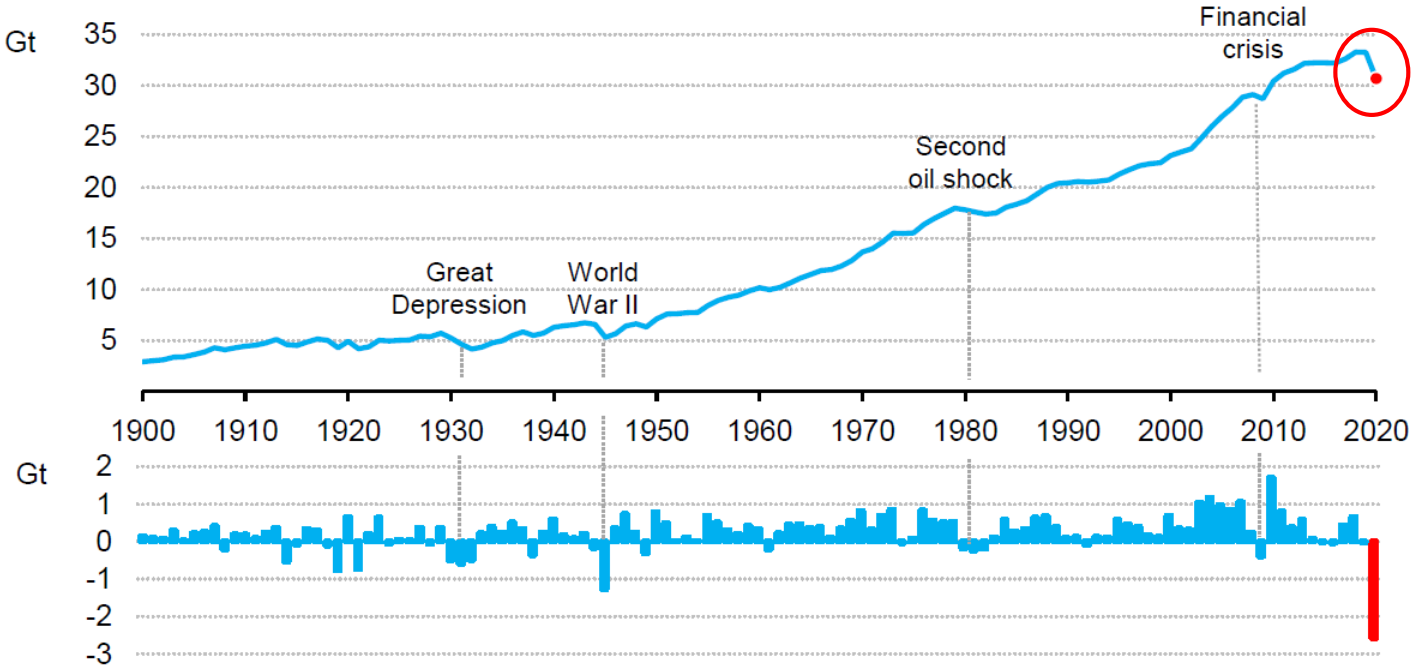
Source: Research Institute of Innovative Technology for the Earth (RITE)

Impact of COVID-19 (IEA Outlook)

- Energy-originated CO_2 emissions in 2020 are expected to decrease by approximately 2.6 Gt (8% decrease) from the previous year to 30.6 Gt. This is 6 times the impact of Lehman shock.

- On the other hand, **this level is the result of lockdown and self-restraint**. This fact suggests that a decarbonized society aiming for a net zero CO_2 emission is not easy and **innovation is important**.

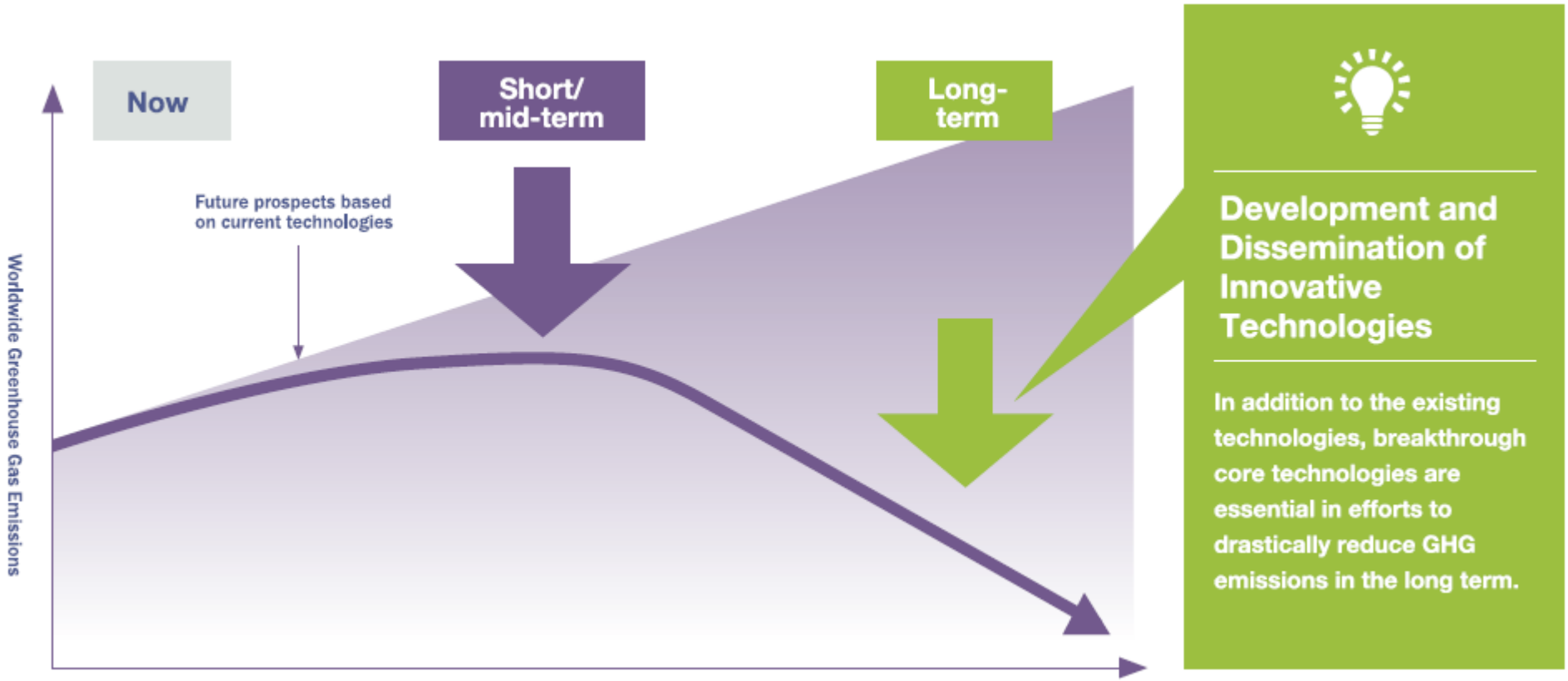
Global energy-related CO_2 emissions and annual change, 1900-2020



Source: IEA

Basic Concept: Innovation is the Key

- To realize the virtuous cycle: economic growth and huge emissions reduction, innovation is the key. We should focus on R&D for innovative technologies and worldwide dissemination.



Keidanren's Proposal on Japan's long-term strategy under the Paris Agreement (Released on March 19, 2019)

- Japan should take the lead on global warming countermeasures by demonstrating a "proactive" vision, linking measures centered on innovation to economic growth and contributing to SDGs. Furthermore, as ESG investment expands around the world, it is also important to ensure that companies that are actively engaged in innovation are well recognized and funded.

5 Proposals

1. Promotion of business-led innovation
2. Realization of energy transition ensuring S+3E at high level
3. Contribution to avoided emissions through Global Value Chain (GVC)
4. Encouraging proactive actions by companies and organizations
5. Aiming for enhanced ambition under a multiple track scenario towards a "vision" or "goal"

Keidanren
Policy & Action

In June 2020, a comprehensive climate change initiative, “Challenge Zero” was launched to accelerate the construction of a decarbonized society through innovation.

https://www.challenge-zero.jp/en/

3．Japanese Government’s Actions

Overview of the Paris Agreement Long-Term Growth Strategy

- In June 2019, a cabinet decision was made on the "Japan's Long-term Strategy under the Paris Agreement" with emphasis on **business-led disruptive innovation**. Contents were generally in line with the Keidanren's opinion.

Vision of long-term strategy

- Aiming to accomplish a "decarbonized society" as early as possible in the second half of this century,, while taking measures towards the reduction of GHGs emissions by 80% by 2050.
- Realizing "a virtuous cycle of environment and growth" towards the vision with **business-led disruptive innovation**, Swift implementation of actions from now.

Direction of each sector

- For energy transition / decarbonization, exploring all options.
- Decarbonized manufacturing (Zero-carbon steel by using CO_2-free hydrogen, CCU including artificial photosynthesis and biomass utilization)
- In the transportation sector, "Well-to-Wheel Zero Emission" (80% reduction in emissions per Japanese car by 2050) etc.

Main policy

- Promoting innovation for practical application and wide usage of decarbonization technologies leading to drastic reduction of GHG, achieving cost that allows commercialization for social application
- Appropriately "visualizing" (TCFD, etc.) corporate efforts in innovation etc. and mobilizing finance for innovation by financial institutions
- Promoting competitive technologies and products with high environmental performance, and development and investment of energy and city/transport infrastructure that contributes to CO_2 emission reductions in line with the long-term goals of the Paris Agreement

Efforts of Japanese Government

- Green Innovation Summit (October 2019)
- Hydrogen Energy Ministerial Meeting (September 2019)
- International Conference on Carbon Recycling: Industry-Academia-Government Session (September 2019)
- RD20 (September 2019)
- TCFD summit (October 2019)
- ICEF (October 2019)
- Progressive Environment Innovation Strategy (January 2020)

  1) “Innovation Action Plans” which describe 5 fields, 16 issues and 39 themes with cost targets.
  2) “Acceleration Plans” which detail research frameworks and investment promotion policies.
  3) “Zero-Emission Initiatives” which depict collaborative works and outreach activities with global leaders for social implementation.

- “Green Innovation Strategy Meeting” as a conference body to follow up on the above Strategy (July 2020)

4. About “Challenge Zero”

Overview

- In light of the recent increase in extreme weather, climate change has become an urgent issue. The business community needs to aggressively take on challenges for innovation to realize a decarbonized society.

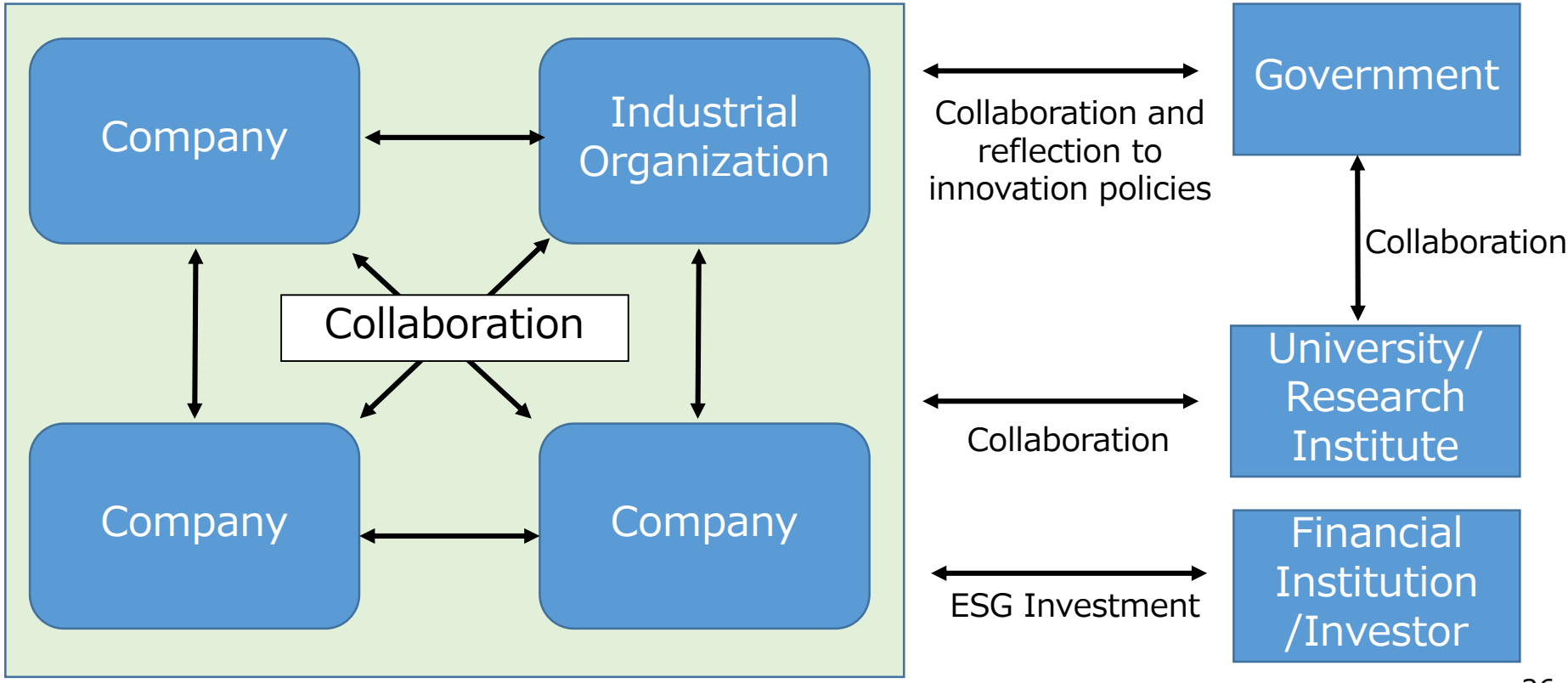
- Through "Challenge Zero" ("Challenge Net Zero Carbon Innovation"), Keidanren, **in cooperation with the Japanese government**, strongly publicizes and encourages **innovation actions that companies** (including industrial organizations and related organizations) **take to realize a decarbonized society**, both in Japan and abroad.

- Participating companies endorse the Declaration on Challenge Zero and announce their specific actions for innovation that they are taking on.

- Although the COP26 has been postponed for one year due to the COVID-19, **Keidanren vigorously promotes the Challenge Zero**, without loosening the reins on climate change measures, to **achieve the net zero goal set out in the Paris Agreement**

Aims of Challenge Zero

- Promote game change that appreciates actions for innovation.
- Invite ESG investment.
- Collaboration among companies, organizations, universities and government's innovation policies.
- Disseminating the importance of transitive technologies and adaptation/resilience technologies towards a net zero carbon society.



3 Areas of Challenge Zero

1. Development of net-zero emission technologies (including transition technologies)

2. Dissemination and implementation of net-zero emission technologies

3. Finance for companies that are engaged in the above challenges

Launch of Challenge Zero

- From January to March 2020, Keidanren encouraged its members to participate in the Challenge Zero. Finally, 137 companies and organizations participated and announced 305 challenges.
- On 8 June, Keidanren Chaiman Nakanishi announced the launch of Challenge Zero at his press conference.

Keidanren Chairman Nakanishi (8 June)

“Challenge Zero” Official Website

URL https://www.challenge-zero.jp/

* Currently only Japanese version.

* Compatible with smart phones.

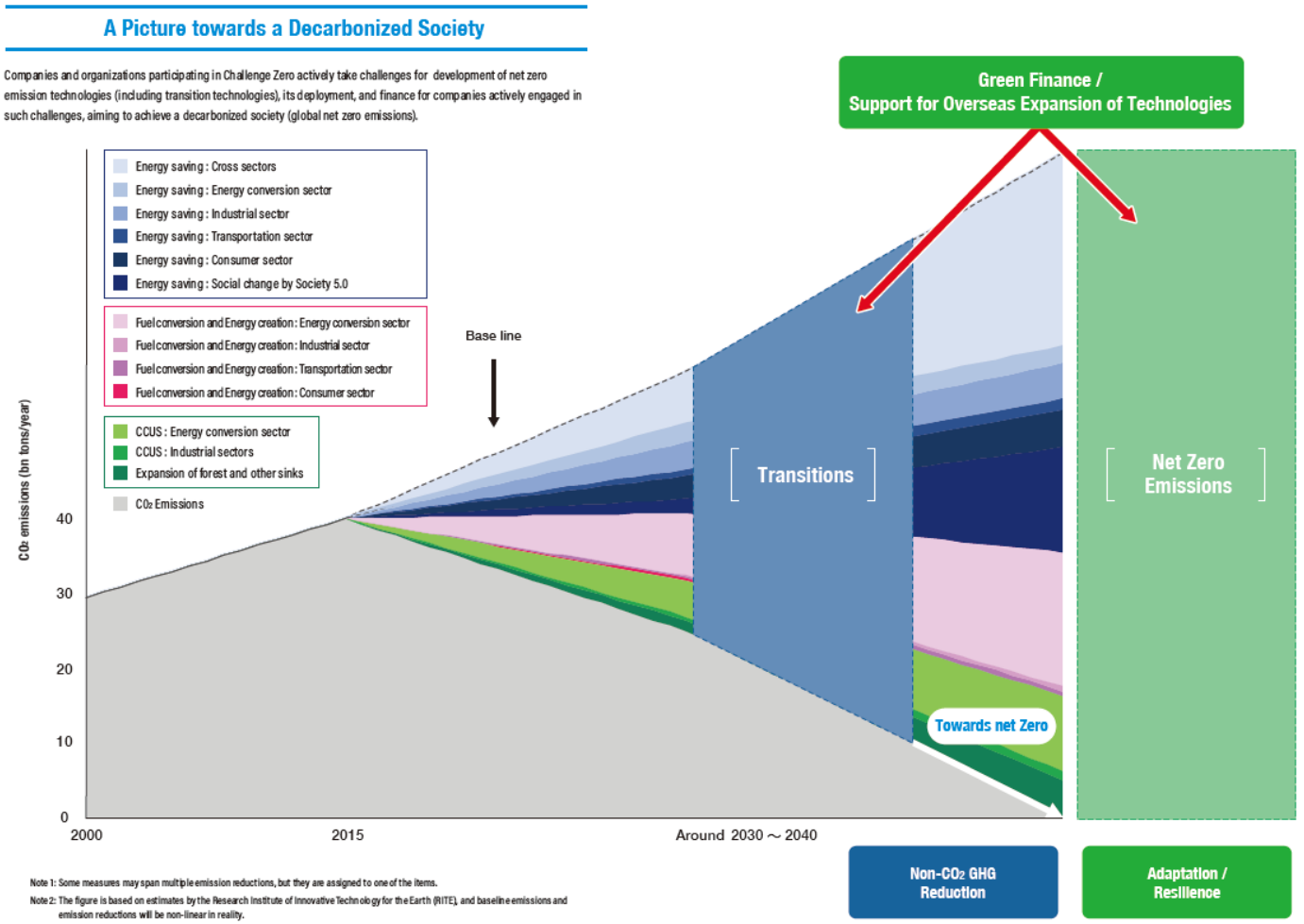
(Top Page)

List of Participating Companies and Organizations (as of June 8)

1. AGC Inc.
2. AISIN SEIKI Co., Ltd.
3. AJINOMOTO CO., INC.
4. ANA HOLDINGS INC.
5. Asahi Kasei Corporation
6. Azbil Corporation
7. Chubu Electric Power Company, Inc.
8. Dai-ichi Life Holdings, Inc.
9. Daio Paper Corporation
10. DAIWA HOUSE INDUSTRY CO., LTD.
11. Denka Co., Ltd.
12. DENSO CORPORATION
13. EAST JAPAN RAILWAY COMPANY
14. Electric Power Development Co., Ltd.
15. FamilyMart Co., Ltd.
16. FLAT GLASS MANUFACTURERS ASSOCIATION OF JAPAN
17. FUJI ELECTRIC CO., Ltd.
18. FUJI OIL HOLDINGS INC.
19. Fujikura Ltd.
20. Fujita Corporation
21. FUJITSU Ltd.
22. GUNZE LIMITED
23. Hitachi Metals, Ltd.
24. Hitachi, Ltd.
25. Hulic Co., Ltd.
26. IBIDEN Co.,LTD.
27. Idemitsu Kosan Co., Ltd.
28. IHI Corporation
29. Japan Asia Group Limited
30. JAPAN CHEMICAL INDUSTRY ASSOCIATION
31. Japan External Trade Organization
32. JAPAN VILENE COMPANY, LTD.
33. JERA Co., Inc.
34. JFE Holdings, Inc.
35. JGC HOLDINGS CORPORATION
36. JTEKT CORPRATION
37. JX Nippon Mining & Metals Corporation
38. JXTG Holdings, Inc.
39. KAJIMA CORPORATION
40. Kawasaki Kisen Kaisha, Ltd.
41. Komatsu Ltd.
42. KONICA MINOLTA, INC.
43. KURITA WATER INDUSTRIES LTD.
44. Kyushu Financial Group, Inc.
45. MAEDA CORPORATION
46. Mazda Motor Corporation
47. MEIDENSHA CORPORATION
48. Mitsubishi Chemical Holdings Corporation
49. Mitsubishi Corporation
50. Mitsubishi Electric Corporation
51. MITSUBISHI GAS CHEMICAL COMPANY, INC.
52. Mitsubishi Heavy Industries, Ltd.
53. MITSUBSHI MATERIALS CORPORATION
54. MITSUBISHI MOTORS CORPORATION
55. Mitsubishi Research Institute, Inc.
56. Mitsubishi UFJ Financial Group, Inc.
57. MITSUI & CO., LTD.
58. Mitsui Chemicals, Inc.
59. Mitsui Fudosan Co., Ltd.
60. MITSUI MINING & SMELTING CO., LTD.
61. Mizuho Financial Group, Inc.
62. MS&AD Insurance Group Holdings, Inc.
63. NEC Corporation
64. Nippon Koei Co., Ltd.
65. Nippon Life Insurance Company
66. NIPPON STEEL CORPORATION
67. NIPPON TELEGRAPH AND TELEPHONE CORPORATION
68. NISHIMATSU CONSTRUCTION CO., LTD.
69. Nissan Motor Co., Ltd.
70. Nissin Electric Co., Ltd.
71. NOK CORPORATION
72. Nomura Holdings, Inc.
73. Nomura Research Institute, Ltd.
74. NTN Corporation
75. NYK Line
76. OBAYASHI CORPORATION
77. OKI Electric Industry Co., Ltd.
78. Okumura Corporation
79. OMRON Corporation
80. OSAKA GAS CO., LTD.
81. Panasonic Corporation
82. Petroleum Association of Japan
83. SANKI ENGINEERING CO., LTD.
84. SANYO CHEMICAL INDUSTRIES, LTD.
85. SATO KOGYO CO., LTD.
86. SECOM CO., LTD.
87. SEIKO EPSON CORPORATION
88. SEKISUI CHEMICAL CO., LTD.
89. Seven & i Holdings Co., Ltd.
90. SHIMIZU CORPORATION
91. Shin-Etsu Chemical Co., Ltd.
92. SHINRYO CORPORATION
93. Shinsei Bank, Limited
94. SHOWA DENKO K.K.
95. Sompo Holdings, Inc.
96. SUMITOMO CHEMICAL COMPANY, Ltd.
97. SUMITOMO CORPORATION
98. Sumitomo Electric Industries, Ltd.
99. SUMITOMO LIFE INSURANCE COMPANY
100. Sumitomo Mitsui Construction Co., Ltd.
101. Sumitomo Mitsui Financial Group, Inc.
102. Suntory Holding Limited
103. TAIHEIYO CEMENT CORPORATION
104. Taikisha Ltd.
105. TAIYO NIPPON SANSO Corporation
106. Takashimaya Company, Limited
107. TAKENAKA CORPORATION
108. TEIJIN LIMITED
109. Terumo Corporation
110. The Chugoku Electric Power Company, Inc.
111. The Federation of Electric Power Companies of Japan
112. The Japan Electrical Manufacturers' Association
113. The Japan Gas Association
114. The Japan Iron and Steel Federation
115. The Kansai Electric Power Co., Inc.
116. THE NIPPON ROAD Co., Ltd.
117. The Okinawa Electric Power Co., Inc.
118. TODA CORPORATION
119. Toho Gas Co., Ltd.
120. Tokio Marine & Nichido Fire Insurance Co., Ltd.
121. Tokuyama corporation
122. Tokyo Electric Power Company Holdings, Inc.
123. TOKYO ENERGY & SYSTEMS INC.
124. Tokyo Gas Co., Ltd.
125. Toppan Printing CO., LTD.
126. Topy Industries, Ltd.
127. Toray Industries, Inc.
128. TOSHIBA CO.
129. Tosoh Corporation
130. TOTO LTD.
131. Toyo Seikan Group Holdings, Ltd.
132. TOYOBO CO., LTD.
133. TOYOTA BOSHOKU CORPORATION
134. TOYOTA MOTOR CO.
135. TSUBAKIMOTO CHAIN CO.
136. UBE INDUSTRIES, LTD.
137. YASKAWA ELECTRIC CO.

Path to a Decarbonized Society

- With the cooperation of Keigo Akimoto, Chief Researcher of the Research Institute of Innovative Technology for the Earth (RITE), we have estimated the path to a decarbonized society realized through the social implementation of the innovations provided in the “Challenge Zero”.



Example 1: Hydrogen Society

Produce → Transport, storage, supply → use

- ENEOS
- NIPPON STEEL
- Asahi Kasei
- Tokuyama
- OSAKA GAS
- OBAYASHI
- Electric Power Development
- Mitsubishi Heavy Industries

- ENEOS
- Idemitsu Kosan
- Chiyoda
- SUMITOMO
- Electric Power Development
- JGC
- Toho Gas

[Component]

- NIPPON STEEL
- Toray Industries
- TEIJIN

[Automobile]

- TOYOTA MOTOR

[Residence]

- Tokyo Gas
- OSAKA GAS
- Panasonic
- AISIN SEIKI
- JTEKT
- SHIMIZU

[Railway]

- EAST JAPAN RAILWAY

[Ship]

- Kawasaki Kisen

[Others]

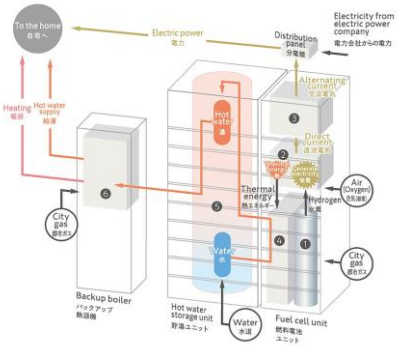
- Mitsubishi Heavy Industries
- Tokyo Gas
- Mitsubishi Chemical
- NIPPON STEEL, JFE

[Component]

- TOYOBO
- NOK
- Toray Industries
- TEIJIN

"Development of Alkaline Water Electrolysis System for Affordable Green Hydrogen" by Asahi Kasei

"Installing hydrogen refueling stations for lowering CO_2 emission from mobilities like FCVs and FC buses." by ENEOS



"Residential Fuel Cell ENE-FARM" by Tokyo Gas

Finance

- Sumitomo Mitsui FG
  "Challenge to build a finance mechanism towards the realization of a hydrogen-based society through the "Mirai Creation Fund" and "Hydrogen Utilization Study Group in Chubu"
- Mitsubishi UFJ FG, Mizuho FG, Shinsei Bank, Dai-ichi Life, Nippon Life Insurance

Research

- Daiwa Securities
- Nomura
- Federation of Electric Power Companies

Example 2: CCUS, Carbon Recycling

CO_2 → Methane (CH_4) or Methanol (CH_3OH)

"Carbon Recycling Methanol Business" by MITSUBISHI GAS CHEMICAL, Mitsubishi Heavy Industries ★
Others: Idemitsu Kosan, Tokyo Gas, OSAKA GAS, The Japan Gas Association, JFE, CHIYODA

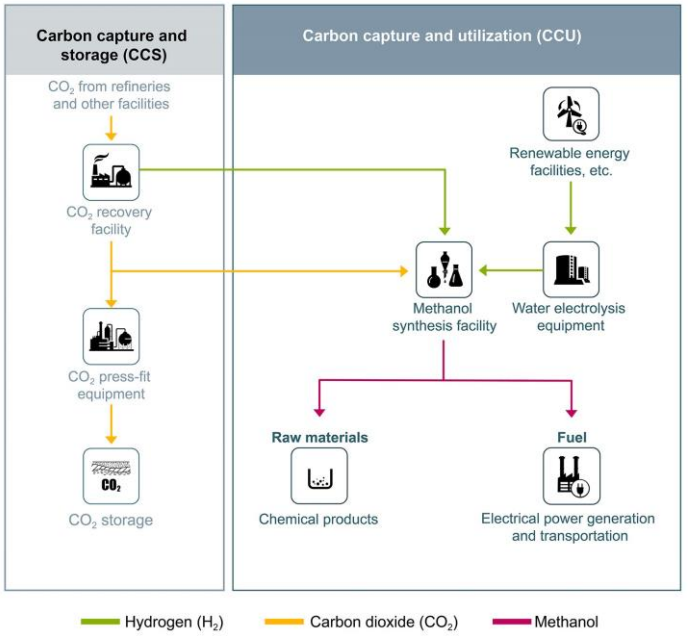
CO_2 → Carbonate

"Carbonate production(New technology development on CO_2 fixation and utilization)" by Idemitsu Kosan
Others: JGC HOLDINGS, UBE INDUSTRIES, NIPPON STEEL

Garbage → Ethanol

Turning "Garbage" into Ethanol = Establishing a first-in-the-world innovative production technology by SEKISUI CHEMICAL

★



Others

"Research and development of artificial photosynthesis for realizing a sustainable carbon cycle" by Mitsubishi Chemical
Others: Idemitsu Kosan, TOSHIBA

"Development of a novel bioprocess to recycle CO_2" by The Chugoku Electric Power

"Oil & gas production while reducing a large amount of CO_2 emitted into the atmosphere utilizing CCUS technology" by ENEOS

"Technology of CO_2 utilization" by JFE

"Contribution to CCUS by HiPACT® technology" by JGC

5. Moving Forward

Dialogues

- Meeting with Mr. Selwin Hart, Special Adviser to the Secretary-General on Climate Action (July 1, 2020)
- WEF Japan Regional Action Group (July 2, 2020)
- Roundtable with the Minister of the Environment Koizumi (July 8, 2020)

Mr. Selwin Hart

Keidanren Chairman Nakanishi

Minister of the Environment Koizumi

Public Private Partnership on R&D

- Keidanren started collaboration with the government's "Progressive Environment Innovation Strategy" through the "Zero Emissions Challenge", etc. (July 7, 2020)
  - Companies that are involved in the Keidanren's Challenge Zero and Progressive Environment Innovation Strategy will be listed as "Zero Emission Challenge Companies" with related information for investors.

- Green Innovation Strategy Meeting, Ministry of Economy, Trade and Industry (METI) (July 7, 2020)

Sustainable Finance

- Keidanren declared its support for the Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) in April 2019.
- Keidanren chairman Hiroaki Nakanishi is one of the founders of the TCFD Consortium which aims to further discussion on effective and efficient corporate disclosure of climate-related information and their use by financial institutions.
  - Formulated TCFD Guidance in December 2018.
  - Formulated Green Investment Guidance in October 2019.
- Keidanren participates in the Study Group on Environmental Innovation Finance (held by METI) which made a proposal entitled “Concept Paper on Climate Transition Finance Principles” in March 2020.
- Japan now has the largest number of TCFD supporters in the world (271 organizations, as of May 2020) .

Keidanren's Initiatives on ESG Investing

1. Dialogue with ICGN

- In June 2019, Keidanren has signed a Memorandum of Understanding with ICGN (International Corporate Governance Network), to foster mutual understanding between Japan's corporate leadership and overseas institutional investors around high standards of corporate governance and investor stewardship practices.
- In July 2019, Keidanren addressed the ICGN annual conference and highlighted Japanese corporate initiatives to advance corporate governance and constructive dialogue.

2. Dialogue with US Investors

- In April 2019, Keidanren sent its 1st mission to NY and DC, to spread the message about Japanese companies' efforts in corporate governance reform and the promotion of constructive dialogue as well as exchange views and opinions with US institutional investors.

Keidanren's Initiatives on ESG Investing

3. Dialogue with Global Asset Owners Forum

- Since 2018, Keidanren has held an annual roundtable with members of the Global Asset Owners Forum including public pension funds (e.g., CalPERS, CalSTRs, and GPIF)
- Discussing ESG and "Society 5.0 for SDGs" initiatives
- CalSTRS CIO Christopher Ailman says, *"We couldn't have imagined having this kind of meeting with Keidanren 10 years ago."*

4. Dialogue with PRI

- In June 2018 and October 2019, Keidanren held a roundtable with Martin Skancke, Chair of the Principles for Responsible Investment (PRI) Board.
- Discussed the importance of promoting constructive dialogue through active involvement of both investors and companies.

Martin Skancke, Chair, PRI

Keidanren's Initiatives on ESG Investing

5. Dialogue among Keidanren Members

- Keidanren's Committee on Financial and Capital Markets has established a working group to review the development and issues in constructive dialogue with investors. It's planning to release a final report in March.
- Since 2018, Keidanren has held a series of symposiums to share experiences of leading Japanese companies in corporate governance reforms. Topics discussed include succession plans, role of boards and constructive dialogue with investors, and governance to promote business innovations.

6. Support for TCFD

- In April 2019, Keidanren has declared its support for the Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).
- "TCFD Consortium" was established with Keidanren Chairman Nakanishi acting as a founder, to facilitate dialogue between operating companies and financial institutions about effective corporate disclosures.

Keidanren's Initiatives on ESG Investing

7. Promoting Diversity with 30% Club

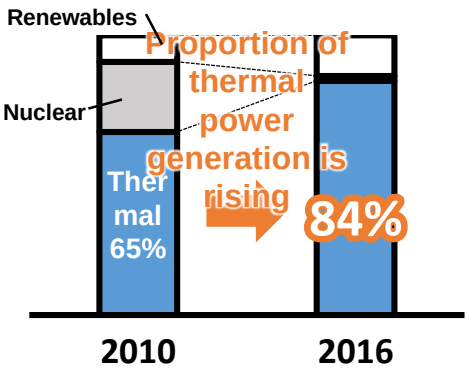
- In December 2019, Keidanren has signed a Memorandum of Understanding with 30% Club Japan, to collaborate efforts to promote more female representation in the Japanese business community.

Rebuilding Japan's Electricity System—Electricity Policy to Realize Society 5.0

Japan's electricity system faces four crises due to changes following the Great East Japan Earthquake

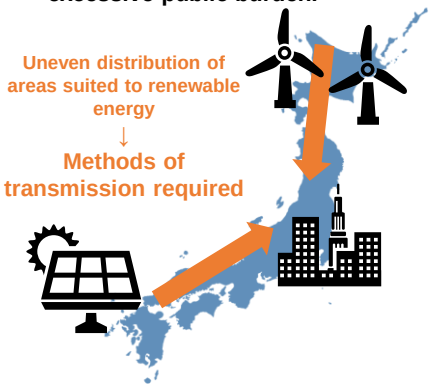
1 Contrary to global expectations, the proportion of fossil fuels in the energy mix has risen

- More than 80% of electricity output depends on fossil fuels.
- Eight years after the earthquake, a rising level of reliance on fossil fuels is difficult to justify, and Japan is attracting international criticism regarding global warming countermeasures.



2 Inadequate efforts to create an environment for further expansion of renewable energy

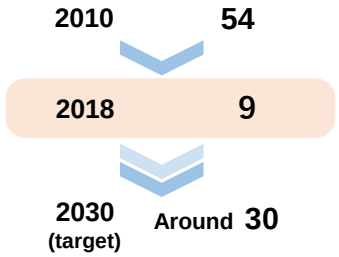
- Sluggish efforts to upgrade transmission and distribution networks or build next-generation facilities.
- Efforts have been inadequate to deliver renewable energy to areas of demand while distribution of areas suited to renewable energy is uneven, and to assure quality of electricity when large volumes are introduced.
- Current subsidy system for renewable energy (FIT scheme) imposes excessive public burden.



3 Re-start of nuclear power plants is still delayed

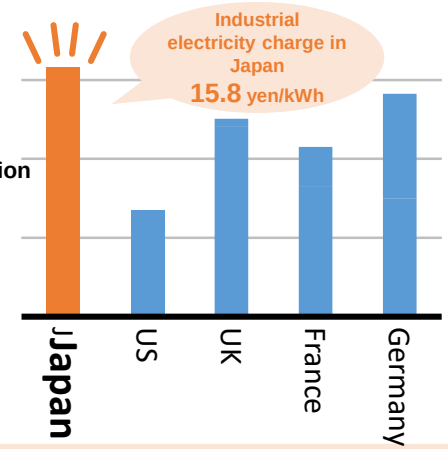
- Meeting 100% of Japan's electricity needs with renewables is not realistic. Utilization of nuclear power is essential from a decarbonization perspective, etc.
- Although safety has been enhanced following the earthquake, public understanding has not yet been gained, and resumption of operations is delayed.
- With operators unable to recover investment by operating their plants, facility maintenance and upgrading costs are a burden on their businesses.

Number of nuclear power plants in operation



4 Electricity charges in Japan are relatively high

- FIT scheme for renewables pushes up electricity charges.
- Although liberalization was expected to curb electricity charges, they have not yet fallen to a level comparable with other countries.
- As the population declines, prospects of recovering investment become increasingly remote, leading to reluctance to invest.



Electricity infrastructure is becoming increasingly important as we head towards Society 5.0. However, electricity investment is stagnant in the face of uncertain business prospects.

Failure to address this situation will inevitably lead to:

- Continuing reliance on fossil fuels
- Lower-quality electricity supply
- Steep rises in electricity charges

= Breakdown of the S+3E principle on which energy policy is based (safety+energy security, economic efficiency, and environment)

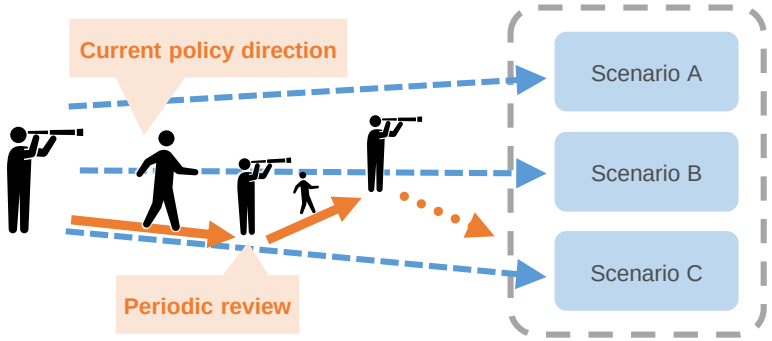
Impact on a wide range of key policy issues including climate change and reinforcement of industrial competitiveness and, by extension, daily lives and business activities.

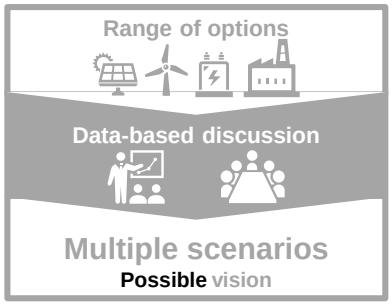
Essential to create an environment that stimulates currently stagnant investment in electricity infrastructure

Direction of Key Measures in Each Field

Develop a vision for the future

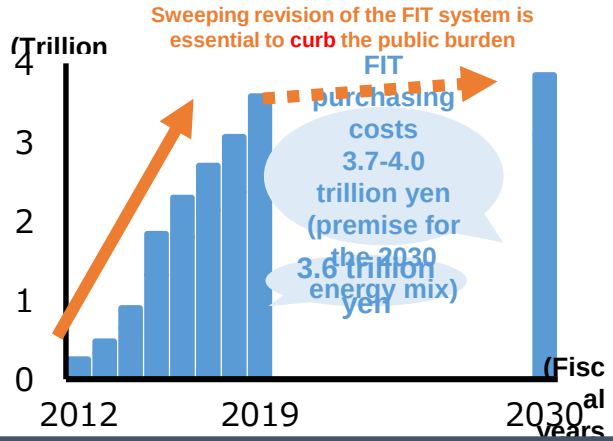
- A vision for the future needs to be presented to show potential for recovery of investment.
- In drawing up the next Strategic Energy Plan, the government needs to present multiple scenarios setting out an electricity system vision beyond 2030.
- These scenarios should strive for the best mix combining all options to set out specifics of electricity sources, networks, demand, public burden, etc.





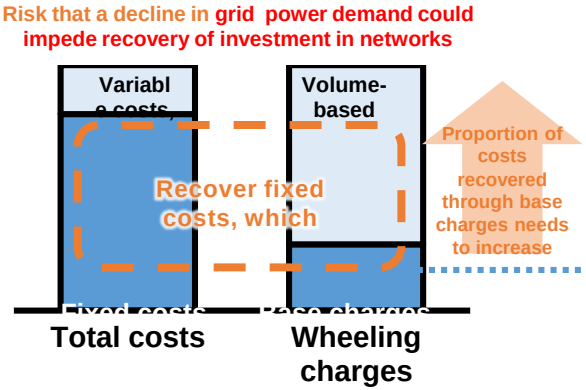
Expand utilization of renewable and nuclear energy

- Renewable and nuclear energy is essential to decarbonization.
- Sweeping revision of the FIT scheme for renewable energy is essential to curb the public burden.
- The government needs to restart existing nuclear facilities, streamline regulation with safety as a prerequisite, and encourage replacement and building new facilities, etc.



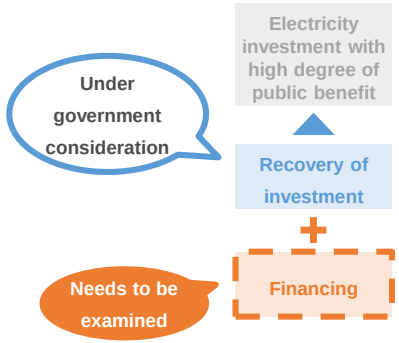
Build next-generation transmission and distribution networks

- Transmission and distribution networks built during Japan's high economic growth period are aging and need to be upgraded or replaced with next-generation facilities to cope with expanded introduction of large-scale offshore wind farms, roof-top solar panels, electric vehicles, etc.
- Given the unlikelihood of any increase in electricity volumes handled by transmission and distribution networks due to factors including widespread introduction of decentralized electricity sources, the wheeling charge system (which enables recovery of transmission and distribution costs) needs to be reformed to encourage necessary investment.



Secure finance

- As electricity business shifts from the fully distributed cost method to a free competition model, financial risk-return equation is also changing.
- As well as examining means of recovering investment, the government should consider fund-raising provisions, including use of FILP, to enable uninterrupted financing of electricity infrastructure which offers a high degree of public benefit.
- It will also be vital to create an environment that attracts domestic and international capital, including ESG investment.



Keidanren will take stronger action to maintain and advance Japan's electricity system

Keidanren
Policy & Action

Thank you for your attention!