

October 8, 2020

Creating a Decarbonized Society through Innovation

Launch of New “Challenge Zero” Project to Address Climate Change

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Keidanren recently launched a new project to address climate change, called “Challenge Zero” (Challenge for Net Zero Carbon Innovation). This project provides strong backing for companies and industry associations actively engaged in challenges aimed at achieving net zero emissions as soon as possible, in line with the goals of the Paris Agreement.

Challenge Zero logo



As well as reviewing Keidanren’s climate change initiatives to date, this report has been prepared to disseminate information on the background, aims, and key points of Challenge Zero to a wide audience both in Japan and overseas.

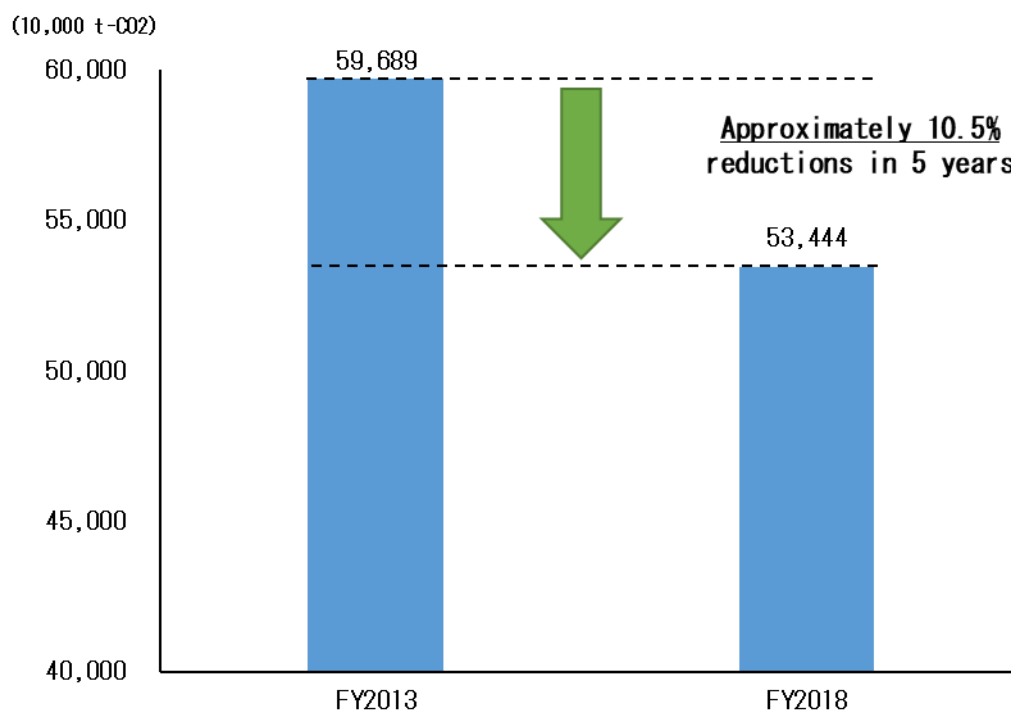
1. Keidanren’s Climate Change Initiatives to Date (towards a low carbon society)

Keidanren has actively promoted climate change initiatives over the last 20 years or more. Guided by the Keidanren Voluntary Action Plan on the Environment developed in June 1997 ahead of agreement on the Kyoto Protocol, participating industries made voluntary efforts to reduce emissions while setting their own goals and steadily implementing PDCA cycles. As a result, in the fiscal years 2008–2012 (the first commitment period under the Kyoto Protocol), we made a major contribution to Japan’s achievement of the target under the Protocol (a 6% reduction in greenhouse gas [GHG] emissions below 1990 levels). This included 34 industries in the industrial and energy conversion sectors achieving CO₂ emission reductions of 12.1% below 1990 levels.

Following on from the Voluntary Action Plan on the Environment, Keidanren’s Commitment

to a Low Carbon Society started from fiscal 2013. Under this commitment, CO₂ emissions have been steadily reduced further, and by fiscal 2018 total emissions from all sectors had been reduced by approximately 10.5% below fiscal 2013 (baseline year) levels.

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



Such voluntary initiatives by Keidanren have been positioned as a key pillar of Japan's climate change policies in its Nationally Determined Contribution (GHG reduction target for fiscal 2030) registered with the United Nations and its Plan for Global Warming Countermeasures (decided by the cabinet in May 2016).

2. Background to Launch of Challenge Zero Project (towards a decarbonized society)

With the recent increase of extreme weather events in Japan and abroad, addressing climate change has become a pressing global issue. It will be difficult to achieve net zero emissions worldwide in line with the goals of the Paris Agreement solely by extending existing efforts. Companies must recognize climate change responses as a vital management challenge and make their own contributions to achieving net zero emissions to fulfill the goals of the Paris Agreement through proactive and bold innovation.

Based on this awareness, in December 2019 Keidanren announced the "Challenge Zero" concept, a new project providing strong backing for companies and industry associations rising to the challenge of decarbonization through innovation. Keidanren also hosted an official side event and announced this concept internationally at the UN Climate Change Conference (COP25) in Madrid, Spain, with the participation of Japan's Minister of the

Environment, Shinjiro Koizumi.

Keidanren then encouraged its members to participate in Challenge Zero, resulting in endorsement by 137 companies and other organizations and the declaration of 305 challenges by the time of the announcement of project launch on June 8, 2020. A dedicated Challenge Zero website was launched on the same day.

- **Challenge Zero website:** <https://www.challenge-zero.jp/en/>

The number of Challenge Zero endorsements and challenges has continued to grow, reaching 154 companies and other organizations and 339 challenges as of the date of this report's preparation (September 8, 2020). An up-to-date list of participating members and specific examples of innovation challenges can be viewed by clicking on the links below:

- Challenge Zero participating members: <https://www.challenge-zero.jp/en/member/>
- Innovation challenges: <https://www.challenge-zero.jp/en/casestudy/>

3. Challenge Zero: Overview and Goals

Challenge Zero participants endorse the Declaration on “Challenge Zero” to show their bold commitment to the challenge of innovation that will contribute to the realization of a decarbonized society and announce specific actions for innovation that they are taking on initiatives relating to their own challenges. These specific actions fall into three broad categories.

The first is the challenge of developing innovative technologies. These include: (a) net zero emission technologies to effectively reduce GHG emissions to zero—for example, those relating to renewable energy, hydrogen, carbon capture, utilization, and storage, and electric vehicles; (b) transition technologies required to contribute to extensive global reductions in GHG emissions during the shift to net zero emissions; and (c) adaptation and resilience technologies to support a decarbonized society.

The second is the challenge of proactively disseminating and implementing such wide-ranging technologies throughout society. Innovation to promote further reductions in the costs of technologies will be essential to their implementation.

The third is the challenge of proactive provision of finance to companies that are engaged in the above challenges.

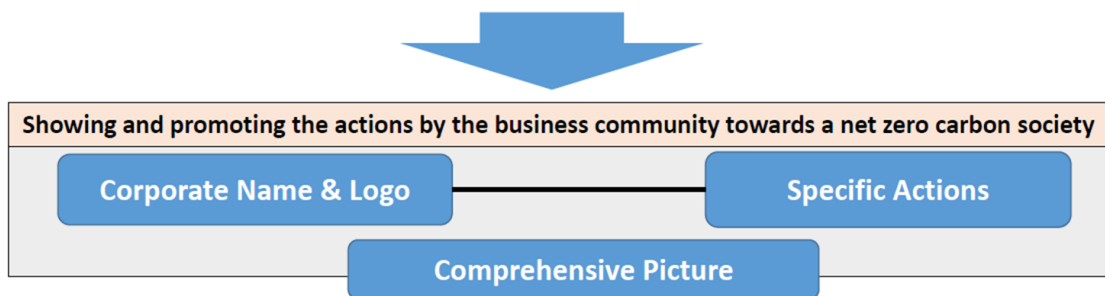
Basic Concept of Challenge Zero

Participating companies and organizations **declare** one of the below **challenges**, and each company **reports** specific **actions** regarding its declaration.

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

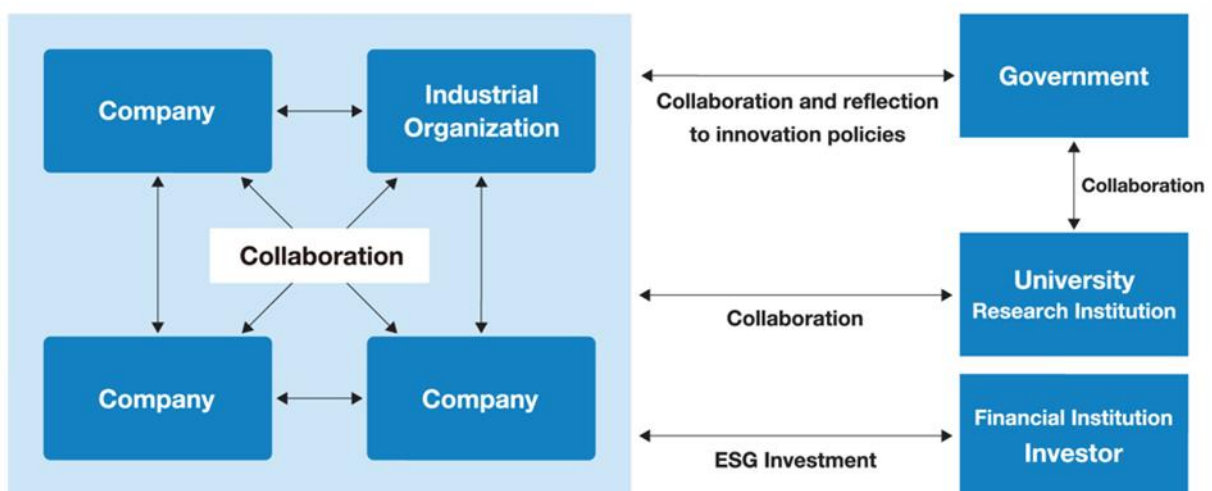
2. Dissemination and implementation of net-zero emission technologies

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



By setting out specific actions linked to corporate names and logos, Challenge Zero aims to promote a game change that sparks competition for innovation among participants. It also aims to invite ESG investment, which is indispensable for innovation, and encourage collaboration involving diverse players including industry, government, and universities.

Aims of Challenge Zero



By energetically promoting Challenge Zero in cooperation with the Japanese government,

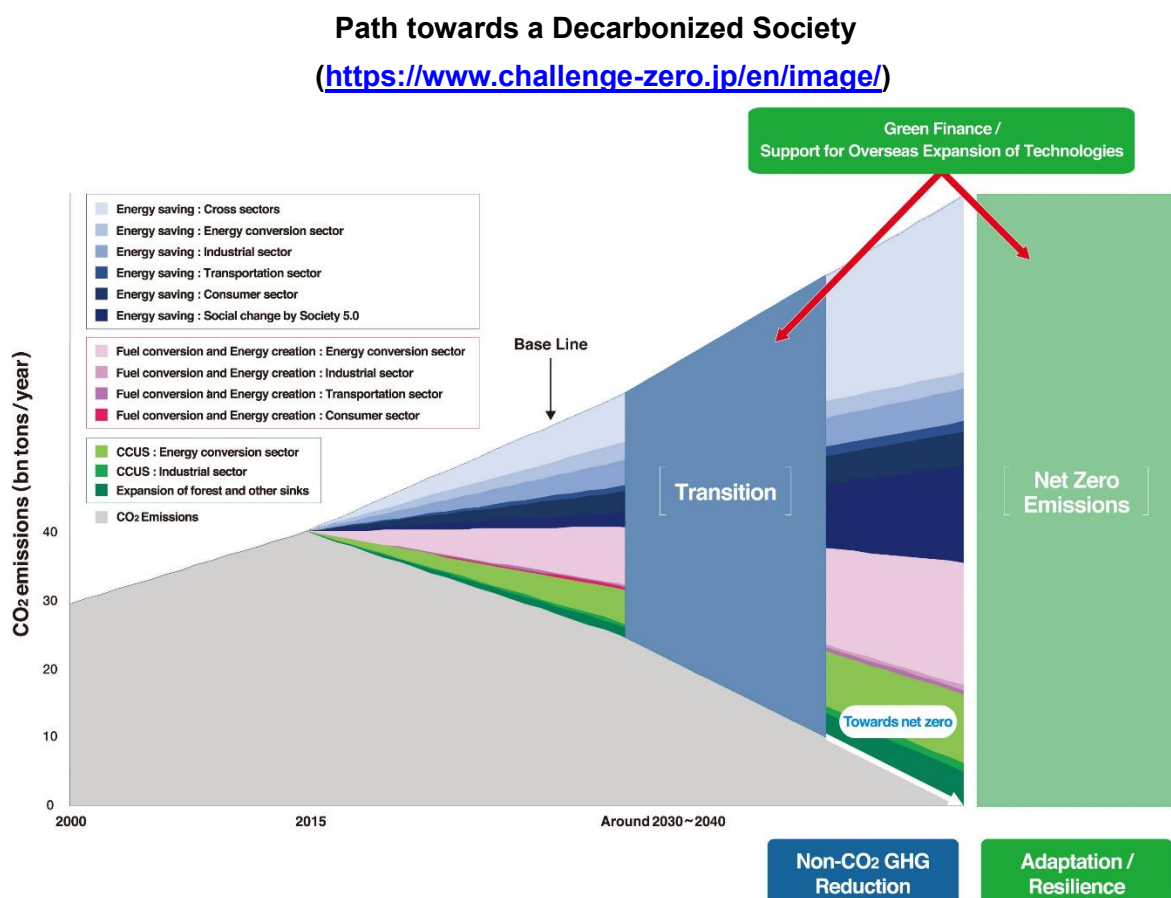
Keidanren will provide strong backing for business-led innovation.

As an example, under the Zero-Emission Challenge project, which is part of the Progressive Environment Innovation Strategy developed by the Japanese government in January 2020, the Ministry of Economy, Trade and Industry will prepare and publish a list of companies engaging in bold innovation aimed at creating a decarbonized society through initiatives such as Challenge Zero and present it to domestic and international financial institutions, ESG investors, etc. (the list is due to be published in October 2020).

4. The Vision of Challenge Zero

The figure below envisions a path towards a decarbonized society achievable through the realization of innovation brought together by Challenge Zero. This image was prepared in cooperation with the Research Institute of Innovative Technology for the Earth.

The figure shows that net zero emissions can be achieved early in the second half of this century by innovating and implementing a wide range of technologies including net-zero-emission and transition technologies with ongoing financial backing.



Note 1: Some measures may span multiple emission reductions, but they are assigned to one of the items.

Note 2: The figure is based on estimates by the Research Institute of Innovative Technology for the Earth (RITE), and baseline emissions and emission reductions will be non-linear in reality.

By continuing to expand the Challenge Zero movement in cooperation with the Japanese government, Keidanren will accelerate business-led innovation and realize a decarbonized society as swiftly as possible.

Hiroaki Nakanishi is Chairman of KEIDANREN, Chairman of Keizai Koho Center and Executive Chairman of Hitachi Ltd.

KEIDANREN (Japan Business Federation) is a comprehensive economic organization with a membership comprising 1,444 representative companies of Japan, 156 nationwide industrial associations, and 31 regional economic organizations (as of April 1, 2020).

Keizai Koho Center (Japan Institute for Social and Economic Affairs, KKC) has served as a bridge for the Japanese business community to interact with its key stakeholders inside and outside Japan. With a wide range of its domestic and international programs, KKC has developed a worldwide network encompassing businesses leaders, lawmakers, government officials, journalists, university scholars, and school teachers.

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