

# CONCEPT

## Solving Environmental Issues through Collaborative Creation in Social Innovation Business

### The aims of “Hitachi Environmental Innovation 2050”

With increasing expectations for corporate contributions toward solving global environmental problems, Hitachi has formulated “Hitachi Environmental Innovation 2050” based on worldwide environmental trends. Hitachi’s “Environmental Vision,” which defines the society envisioned through its environmental management aims, sets long-term environmental targets for the establishment of a low-carbon society, a resource efficient society, and a harmonized society with nature. While pursuing its Social Innovation Business that evolves through digital technologies and collaborative creation, Hitachi has shown its determination to tackle global environmental issues.

#### Aiming for Both Improved Quality of Life and a Sustainable Society

There is an ongoing global search for social frameworks with a low environmental burden for passing on a bountiful earth to the next generation, starting with the United Nation’s adoption of the Sustainable Development Goals (SDGs) and ratification of the Paris Agreement by many countries.

Under its Corporate Credo of “contributing to society through the development of superior, original technology and products,” Hitachi has contributed through business to the important social issue of solving environmental problems. Based on recent global trends, in September 2016 Hitachi formulated its “Environmental Vision” to illustrate the ideal society that Hitachi is aiming for through its environmental management. Furthermore, “Hitachi Environmental Innovation 2050” was established as a long-term target for 2050 through which Hitachi will further promote its environmental efforts (see [Figure 1](#)).

Many pieces of social infrastructure provided by Hitachi’s Social Innovation Business have operated for a long time. Therefore, environmental consideration from a medium- to long-term perspective has become more important. The “Environmental Vision” and “Hitachi Environmental Innovation 2050” are indicative of such corporate stances both inside and outside Hitachi and of Hitachi’s determination to operate as a group in solving global environmental problems.

In its “Environmental Vision,” Hitachi stated that it will “resolve environmental issues and achieve both a higher quality of life and a sustainable society through its Social Innovation Business in collaborative creation with its stakeholders,” clarifying its vision of the society that it aims to realize.

Further, under this vision Hitachi will promote a low-carbon society through mitigation of and adaptation to climate change, a resource efficient society through resource conservation and recycling, and a harmonized society with nature

through conservation of ecosystems. In addition, “Hitachi Environmental Innovation 2050” sets concrete targets for each of these.

### A “Banner for Encouraging Change along with Customers and Society”

Hitachi formulated its long-term environmental targets as follows.

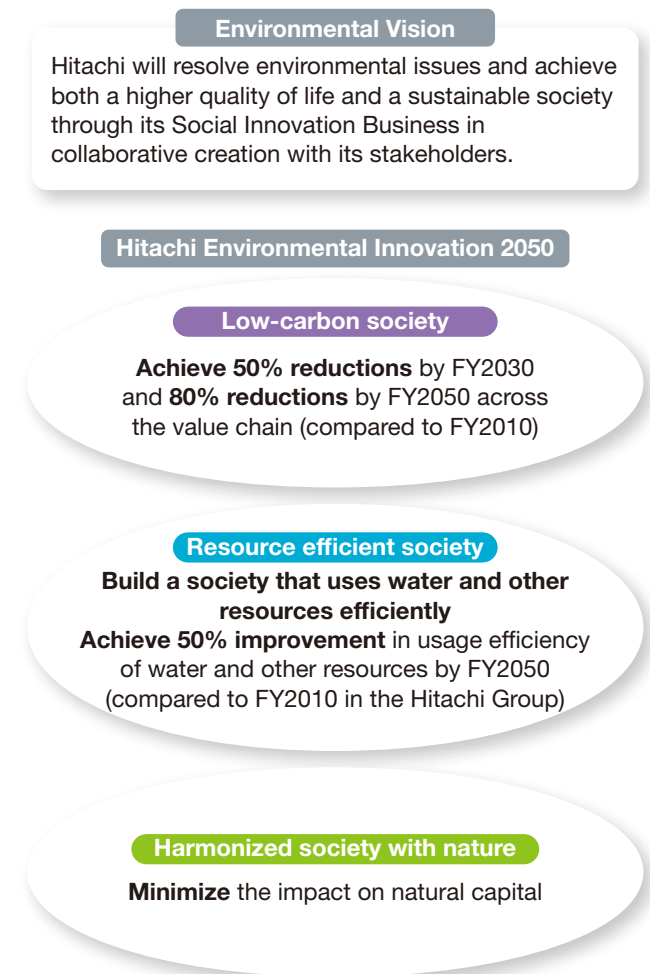
To realize a low-carbon society, Hitachi will reduce carbon dioxide (CO<sub>2</sub>) emissions throughout the value chain by 80% by FY2050 (compared with FY2010). This was set as a top-down target in reference to a report by the Intergovernmental Panel on Climate Change. The main initiatives are described in the next section.

The goal for achieving a resource efficient society is to build a water- and resource-recycling society and to improve water and resource utilization efficiency within the Hitachi Group by 50% (compared with FY2010). Major initiatives include evolution of a series of processes ranging from high-quality fresh water production and water purification to wastewater and sewage processing, and provision of solutions that expand recycling use and creation of water resources through global deployment of seawater desalination systems. In addition, to improve water and resource efficiency, Hitachi is improving manufacturing for long life and resource savings, collection and recycling of products, reduction of water usage in production process, and purification and reuse of wastewater.

The goal for a harmonized society with nature is to minimize the impact on natural capital. Through the provision of products and services such as air and water purification systems and natural monitoring systems, Hitachi will conserve ecosystems and promote environmentally conscious procurement activities. In addition, Hitachi will take specific measures to minimize the environmental impact of its factories and offices.

Collaborative creation with customers and partners as currently promoted by Hitachi is indispensable to achieving these long-term targets, and

Figure 1 | “Environmental Vision” and “Hitachi Environmental Innovation 2050”



CO<sub>2</sub>: carbon dioxide

Hitachi describe this as “a banner for encouraging change along with customers and society.” Specific promotions are aimed at achieving long-term targets by creating an “Environmental Action Plan” that establishes and implements environmental activity items and targets every three years.

### Specific Measures for Realizing a Low-carbon Society

Among its long-term targets, Hitachi particularly emphasizes realizing the aforementioned low-carbon society. One key to achieving its long-term target of an 80% reduction in CO<sub>2</sub> emissions will be how to reduce emissions at the usage stage,

which accounts for more than 90% of greenhouse gas emissions in the value chain.

Hitachi will work on reducing emissions at the usage stage through four policies, and will further promote reduction at the production stage.

First, Hitachi will shift toward low-carbon business structures. Taking the automotive field as an example, it is conceivable that the automobile industry itself will place greater emphasis on hybridization and electrification in accordance with trends for carbon reduction. Second, for breakthrough technology development, Hitachi will aim to develop innovative devices and materials that contribute to reducing environmental

impact. Third, Hitachi will further develop and disseminate ultra-high-efficiency products and low-carbon energy centered on the fields of industrial equipment, information technology (IT), nuclear power, and renewable energy. Fourth, Hitachi will disseminate social-system solutions that realize further energy saving by cooperating and coordinating between systems in a complex manner in broader areas such as whole cities.

Particularly in such multidisciplinary fields, Hitachi intends to work on collaborative creation with customers while fully demonstrating its strengths of experience and expertise in IT and operational technology.

## C O L U M N

## Promoting Initiatives with Customers and Society

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The Social Innovation Business that Hitachi engages in as a core business is a long-standing operation characterized by working with customers and society. Because considerations of the environment will become increasingly important, the long-term environmental targets of “Hitachi Environmental Innovation 2050” were established with this in mind. For example, Hitachi has been working on reducing CO<sub>2</sub> emissions for a long time and has recently further promoted efforts toward environmental conservation by introducing a factory energy management system for visualization of the amount of electricity used. However, the actual situation is that emissions at the usage stage of the products and services that Hitachi offers to its customers make up the overwhelming proportion of the overall emissions

in the value chain. For emissions reductions at the usage stage, Hitachi alone cannot reduce CO<sub>2</sub>.

It will be further necessary to promote environmental impact reduction in a form that combines wide areas and systems, not products and services alone.

When it comes to the environment, there is a powerful impression that mitigation factors are related to increased costs from a corporate standpoint, but by considering this social issue as a business opportunity and developing its Social Innovation Business, Hitachi hopes to work together with customers and society to contribute to the realization of a low-carbon society.

