HITACHI
Inspire the Next

Hitachi Sustainability Report 2019
Fiscal 2018 Results

Hitachi Social Innovation

Contents

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Editorial Policy

Basic Concept

The *Hitachi Sustainability Report 2019* details the environmental (E), social (S), and governance (G) issues that are vital to the sustainability of our operations and society, presenting our stance and the activities undertaken in fiscal 2018.

 Inasmuch as the report is a tool with which we engage with our stakeholders through honest and transparent disclosures of information, it contains our basic policies, promotion systems, key performance indicators, and specific measures for our CSR initiatives in line with the disclosure requirements of the GRI Sustainability Reporting Standards (GRI Standards).

What This Report Covers (Boundary of Reporting)

Period:	The main period covered is fiscal 2018 (April 1, 2018, to March 31, 2019)	
Companies:	1,222 companies, namely Hitachi, Ltd. and 1,221 consolidated subsidiaries (including 418 equity-method associates and joint ventures)	
Boundary of Data:	Financial data:	1,222 companies, namely Hitachi, Ltd. and 1,221 consolidated subsidiaries (including 418 equity-method associates and joint ventures)
	Social data:	Boundary of data indicated under each indicator
	Environmental data:	804 companies, namely Hitachi, Ltd. and 803 consolidated subsidiaries. However, for environmental performance data associated with Hitachi's business operations, Hitachi, Ltd. and consolidated subsidiaries whose environmental load comprises 90% of the total (based on Hitachi calculations) are included.
Reporting Cycle:	Published every year as an annual report	
Date Published:	October 2019	

Notes:
- The data for each fiscal year are the results according to the boundary of data in that fiscal year.
- The base fiscal year data has been revised to match the boundary of data for fiscal 2018.

[Symbol Marks Used in This Report]

* Technical terms, proper nouns, tables, diagrams, etc. requiring explanation

[Hitachi References in This Report]

Hitachi, Ltd.: Information on or initiatives of Hitachi, Ltd.

Hitachi and the Hitachi Group: Information on or initiatives of all Group companies in and outside Japan

[Key Guidelines Referred to in Preparing This Report]

- GRI Standards, Global Reporting Initiative
- Environmental Reporting Guidelines (2012 version, 2018 version), Ministry of the Environment, Japan

Disclosure of Financial and Non-Financial Information

Hitachi, following closely the deliberations of the European Union (EU) and the International Integrated Reporting Council (IIRC) about non-financial disclosure, presents information to match the needs of stakeholders reading this report.

Since the 2016 edition, the *Hitachi Integrated Report* has presented both financial and non-financial information showing how Hitachi is striving to create value. The *Hitachi Sustainability Report* continues to serve as a comprehensive tool providing detailed non-financial information.

● Financial and Non-Financial Information Reports on Hitachi's Value Creation

Hitachi Integrated Report 2019

● Financial Information Reports

Web Investor Relations
http://www.hitachi.com/IR-e/

Note: Information about Hitachi, Ltd. is also disclosed in the *Annual Securities Report* and the *Report on the 150th Business Term*.

● Non-Financial Information Reports

The *Hitachi Sustainability Report 2019* provides non-financial information to investors, auditors, and CSR experts in an easily searchable, interactive PDF format (A4, 166 pages).
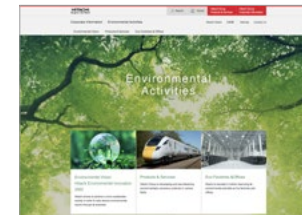
The CSR website contains not only the contents of this report but also news releases to provide up-to-date information to our diverse stakeholders.

Hitachi Sustainability Report 2019

Web Sustainability
http://www.hitachi.com/sustainability/

Web Environmental Activities
http://www.hitachi.com/environment/

Web Global Community Relations and Activities (Social Contribution Activities)
http://www.hitachi.com/sustainability/sc/

Note: We also disclose information about Hitachi, Ltd. in the *Corporate Governance Report*.

Independent Assurance

To enhance the credibility of this report, we have engaged KPMG AZSA Sustainability Co., Ltd. to provide assurance on environmental and social performance indicators. This assurance was carried out in accordance with the International Standard on Assurance Engagement (ISAE) 3000 and 3410.

Performance indicators for fiscal 2018 that have been assured are marked with ✓ in the report.

Hitachi Group Profile

Company Profile (as of March 31, 2019)

Corporate name	Hitachi, Ltd.
Incorporated	February 1, 1920 (founded in 1910)
Head office	1-6-6 Marunouchi, Chiyoda-ku, Tokyo 100-8280, Japan
Representative	Toshiaki Higashihara Representative Executive Officer, President, and CEO
Capital	458.79 billion yen
Number of employees	33,490 (unconsolidated basis) 295,941(consolidated basis)
Number of consolidated subsidiaries (including variable interest entities)	803 (Japan: 181, outside Japan: 622)
Number of equity-method associates and joint ventures	418

Consolidated Financial Highlights for Fiscal 2018, Based on the International Financial Reporting Standards (IFRS)
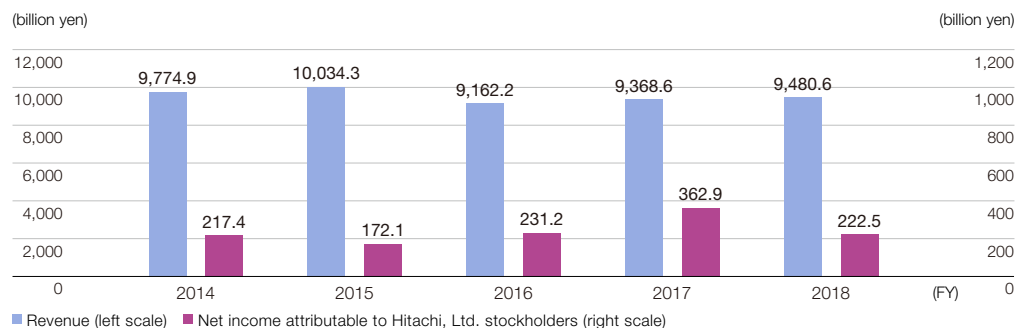
Revenue	9,480.6 billion yen (up 1%, year on year)
EBIT*1	513.9 billion yen (down 20%)
Income from continuing operations, before income taxes	516.5 billion yen (down 19%)
Net income attributable to Hitachi, Ltd. stockholders	222.5 billion yen (down 39%)
Capital expenditure*2	414.7 billion yen (up 11%)
R&D expenditure	323.1 billion yen (down 3%)
Total assets	9,626.5 billion yen
Total Hitachi, Ltd. stockholders' equity	3,262.6 billion yen

*1 EBIT: Income from continuing operations before income tax, less interest income, plus interest charges.
*2 Since fiscal 2015, the amount of investment in leased assets that fall under the heading of finance and leases included in conventional capital expenditure are deducted from capital expenditure for disclosure.
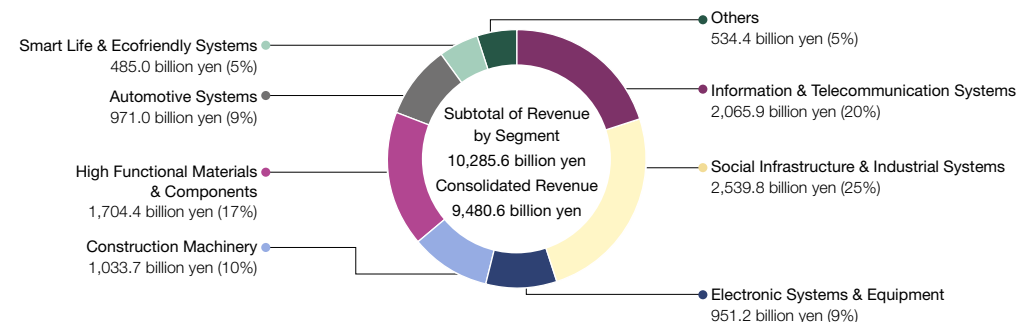Note: Hitachi's consolidated financial statement is prepared based on the International Financial Reporting Standards (IFRS).

Revenue and Share by Segment

(Consolidated for fiscal 2018, based on IFRS)

Smart Life & Ecofriendly Systems 485.0 billion yen (5%)
Automotive Systems 971.0 billion yen (9%)
High Functional Materials & Components 1,704.4 billion yen (17%)
Construction Machinery 1,033.7 billion yen (10%)

Subtotal of Revenue by Segment 10,285.6 billion yen
Consolidated Revenue 9,480.6 billion yen

Others 534.4 billion yen (5%)
Information & Telecommunication Systems 2,065.9 billion yen (20%)
Social Infrastructure & Industrial Systems 2,539.8 billion yen (25%)
Electronic Systems & Equipment 951.2 billion yen (9%)

Note: Our revenue segments were reclassified in fiscal 2019 into five sectors and four subsidiaries.

IT	2,121.6 billion yen (20%)	Hitachi High-Technologies Corporation	731.1 billion yen	(7%)
Energy	453.9 billion yen (4%)	Hitachi Construction Machinery Co., Ltd.	1,033.7 billion yen	(10%)
Industry	895.4 billion yen (9%)	Hitachi Metals, Ltd.	1,023.4 billion yen	(10%)
Mobility	1,214.1 billion yen (12%)	Hitachi Chemical Co., Ltd.	681.0 billion yen	(7%)
Smart Life	1,649.3 billion yen (16%)	Others	561.3 billion yen	(5%)

Note: Revenue by segment includes intersegment transactions.

Revenue and Net Income Attributable to Hitachi, Ltd. Stockholders

(billion yen)

FY	2014	2015	2016	2017	2018
Revenue	9,774.9	10,034.3	9,162.2	9,368.6	9,480.6
Net income attributable to Hitachi, Ltd. stockholders	217.4	172.1	231.2	362.9	222.5

■ Revenue (left scale) ■ Net income attributable to Hitachi, Ltd. stockholders (right scale)

Revenue and Share by Region
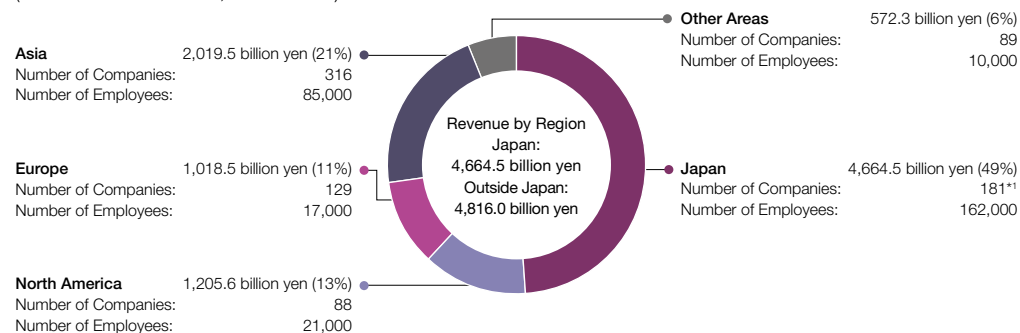
(Consolidated for fiscal 2018, based on IFRS)

Asia 2,019.5 billion yen (21%)
Number of Companies: 316
Number of Employees: 85,000

Europe 1,018.5 billion yen (11%)
Number of Companies: 129
Number of Employees: 17,000

North America 1,205.6 billion yen (13%)
Number of Companies: 88
Number of Employees: 21,000

Other Areas 572.3 billion yen (6%)
Number of Companies: 89
Number of Employees: 10,000

Revenue by Region
Japan: 4,664.5 billion yen
Outside Japan: 4,816.0 billion yen

Japan 4,664.5 billion yen (49%)
Number of Companies: 181*1
Number of Employees: 162,000

*1 Hitachi, Ltd. and 180 consolidated subsidiaries.

Key Business Segments

▌Information & Telecommunication Systems

Hitachi provides IT services that address customers' diverse needs by combining Hitachi's extensive expertise in a diverse range of business fields, including financial services, with advanced information technology. Our services cover the entire life cycle of systems, ranging from consulting to system integration, operation, maintenance, and other support.

- Main Products and Services
  Systems integration, consulting, cloud services, servers, storage, software, telecommunications & networks, ATMs

- Principal Consolidated Subsidiaries (as of March 31, 2019)
  Hitachi Information & Telecommunication Engineering, Ltd., Hitachi-Omron Terminal Solutions, Corp., Hitachi Computer Products (America), Inc., Hitachi Solutions, Ltd., Hitachi Systems, Ltd., Hitachi Consulting Co., Ltd., Hitachi Global Digital Holdings Corporation, Hitachi Payment Services Pvt. Ltd., Hitachi Vantara Corporation

▌Social Infrastructure & Industrial Systems

Hitachi has a long and proven track record of high reliability in supporting people's daily lives through such products and services as rolling stock and train management systems, power plants and transmission and distribution systems, elevators and escalators, and water solutions. It also offers industrial solutions and equipment to enhance the sophistication of production facilities. Hitachi utilizes digital technologies to provide optimum solutions in addressing the issues and diversifying needs of customers worldwide.

- Main Products and Services
  Industrial machinery and plants; elevators; escalators; railway systems; thermal, nuclear, and renewable energy power generation systems; power transmission and distribution systems

- Principal Consolidated Subsidiaries (as of March 31, 2019)
  Hitachi-GE Nuclear Energy, Ltd., Hitachi Industrial Equipment Systems Co., Ltd., Hitachi Elevator (China) Co., Ltd., Hitachi Building Systems Co., Ltd., Hitachi Industry & Control Solutions, Ltd., Hitachi Plant Construction, Ltd., Hitachi Plant Services Co., Ltd., Hitachi Power Solutions Co., Ltd., Hitachi Rail Europe, Ltd.,[1] Sullair US Purchaser, Inc.

*1 Hitachi Rail Europe Ltd. changed its company name to Hitachi Rail Ltd. on April 1, 2019.

▌Electronic Systems & Equipment

Drawing on the Hitachi Group's advanced technologies, Hitachi provides systems supporting the information society, including semiconductor manufacturing equipment, measurement and analysis equipment, broadcasting and video systems, wireless communications and information systems, and healthcare solutions that support healthy lifestyles.

- Main Products and Services
  Semiconductor manufacturing equipment, measurement and analysis equipment, advanced industrial products, medical equipment

- Principal Consolidated Subsidiaries (as of March 31, 2019)
  Hitachi High-Technologies Corporation

▌Construction Machinery

Leveraging decades of technological expertise and know-how, Hitachi offers solutions that address the needs of a broad range of industries, including civil engineering and construction, building and structural demolition, and mining and excavation. Hitachi also handles the sale, servicing, and maintenance of hydraulic excavators and other construction machinery to provide integrated solutions globally.

- Main Products and Services
  Hydraulic excavators, wheel loaders, mining machinery

- Principal Consolidated Subsidiaries (as of March 31, 2019)
  Hitachi Construction Machinery Co., Ltd.

High Functional Materials & Components

Hitachi draws on its wealth of technological expertise and know-how to provide a variety of materials and components—such as semiconductor- and display-related materials, synthetic resin products, specialty steels, magnetic materials, casting components, and wires and cables—that enable advanced functions in products for such sectors as autos, IT and consumer electronics, and industrial and social infrastructure. Business operations are focused in Asia, North America, and Europe.

- Main Products and Services

  Semiconductor- and display-related materials, printed wiring board and related materials, automotive parts, energy storage devices, specialty steel products, magnetic materials, casting products, wires and cables

- Principal Consolidated Subsidiaries (as of March 31, 2019)

  Hitachi Chemical Co., Ltd., Hitachi Metals, Ltd.

Automotive Systems

To contribute to the realization of an affluent society by creating new value-added systems, products, and services through the harmonization of people, vehicles, and society, Hitachi is accelerating its technological development in the fields of environment and safety. We will further develop our Advanced Vehicle Control System, integrating our safety and information technologies with the Hitachi Group's social infrastructure services to meet society's needs for environmental conservation, accident elimination, and traffic congestion reduction.

- Main Products and Services

  Engine powertrain systems, electric powertrain systems, integrated vehicle control systems

- Principal Consolidated Subsidiaries (as of March 31, 2019)

  Hitachi Automotive Systems, Ltd., Hitachi Automotive Systems Americas, Inc.

Smart Life & Ecofriendly Systems

Hitachi provides solutions and services aimed at resolving lifestyle issues through its home appliances, lighting and housing equipment, and refrigerating and air-conditioning. Hitachi also contributes to the resolution of social issues by helping reduce environmental impact and making an ongoing effort to improve products' energy efficiency.

- Main Products and Services

  Refrigerators, washing machines, vacuum cleaners, room air conditioners, air-conditioning equipment

- Principal Consolidated Subsidiaries (as of March 31, 2019)

  Hitachi Appliances, Inc.,[1] Hitachi Consumer Products (Thailand), Ltd., Hitachi Consumer Marketing, Inc.

[1] Hitachi Appliances, Inc. merged with Hitachi Consumer Marketing, Inc. and changed its company name to Hitachi Global Life Solutions, Inc. on April 1, 2019.

Others

In addition to the manufacture and sale of optical disk drives, the company is involved in real estate sales and leasing and management services for offices and other commercial buildings.

- Main Products and Services

  Optical disk drives; real estate management, sales, and leasing

- Principal Consolidated Subsidiaries (as of March 31, 2019)

  Hitachi-LG Data Storage, Inc., Hitachi Life, Ltd., Hitachi Urban Investment, Ltd., Hitachi America, Ltd., Hitachi Asia Ltd., Hitachi (China) Ltd., Hitachi Europe Ltd., Hitachi India Pvt. Ltd.[1]

[1] Hitachi America, Ltd., Hitachi Asia Ltd., Hitachi (China) Ltd., Hitachi Europe Ltd., and Hitachi India Pvt. Ltd. are the Group's regional headquarters, respectively, for the Americas, Southeast Asia, China, Europe, and India and are responsible for marketing the Group's products.

Note: Other major equity-method associates and joint ventures include Hitachi Capital Corp. and Hitachi Transport System, Ltd.

Management

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CEO's Message

Resolving Social Issues and Improving Quality of Life Through Social Innovations

We are today going through an era of volatility, uncertainty, complexity, and ambiguity (VUCA) in which the future of society and economy is becoming increasingly difficult to predict. Our lives are being affected by many sweeping changes, such as shifting demographics from urbanization and aging, climate change, and resource shortages. This has heightened expectations worldwide for private businesses, which are the drivers of innovation, to make a bigger contribution to the resolution of society's issues and the achievement of Society 5.0 and the Sustainable Development Goals (SDGs). There is growing global demand, in particular, for intelligent social infrastructure using digital technology—a need that Hitachi is well-positioned to meet.

In the VUCA era, we believe it is all the more important for us at Hitachi to reembrace our Corporate Credo: to contribute to society through the development of superior, original technology and products. This philosophy has remained at the heart of our operations over the 109 years since our founding, and it informs the Hitachi Group Vision to become a company that "delivers innovation that answer society's challenges." As a global leader with business operations worldwide, we believe it is our mission to contribute to the resolution of social issues and achievement of the SDGs by accelerating our Social Innovation Business.
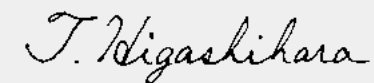
Our 2021 Mid-term Management Plan, announced in May 2019, outlines our aim to help bring about a sustainable society through our global leadership in the Social Innovation Business, simultaneously increasing social, environmental, and economic value, improving people's quality of life, and enhancing value for our customers. We seek to improve people's lives by providing intelligent social infrastructure globally through our digital solutions. The sources of our strength in these areas are our operational technology (OT) accumulated over a century of developing *monozukuri* excellence— starting with the five-horsepower induction motor—and our IT skills honed over the past 50 years. We can contribute to the solution of various problems facing society with our OT, IT, and high-quality products.

Among the issues facing contemporary society, climate change is regarded as being one of the most important, as reflected in the goal set in our Mid-term Management Plan of raising environmental value. Roughly 90% of CO_2 emissions from Hitachi's value chain come from the use of our products and services. We thus have a responsibility to help achieve a low-carbon society by prioritizing our decarbonization business, which seeks to provide more value to customers and society while using less energy.

When people hear the name Hitachi, I would like everyone to associate us with being an innovation partner. This will require that we accelerate our collaborative creation with a full range of stakeholders worldwide and to construct an "innovation ecosystem" with them.

For instance, in addressing social issues to help achieve the SDGs, we will strengthen our efforts to cultivate the "seeds" of innovation into new ideas ready for implementation through collaborative creation with universities, open innovation at "Kyōsō-no-Mori" of Hitachi's Central Research Laboratory, and venture capital investment.

Human capital is another key driver of our Social Innovation Business, and I believe it is extremely important for our employees to have an awareness in their work that all businesses relating directly to social infrastructure can be seen as contributions to society. Human capital is an important component of our efforts to create social value. In striving to achieve our goals for the medium and long term, I would like for all our employees to consider the kind of value we can provide not only to our customers but also to society so that we may make an even bigger contribution through the provision of social, environmental, and economic value.

T. Higashihara

Toshiaki Higashihara
President & CEO
Hitachi, Ltd.

Executive Officer's Message: CSR and the Environment

Integrating Sustainability Initiatives into Our Management Strategy

Osamu Naito

Hitachi, Ltd.
Vice President and Executive Officer
Head of Executive Officer Support and
General Manager of Government &
External Relations Group

The risks we face from such factors as climate change and a global population explosion have grown to unprecedented levels in recent years and are threatening the sustainability of our way of life. Since the European Union announced an action plan in 2015 to accelerate its transition to a circular economy, in which growth is achieved through the effective use of resources, companies have increasingly been called to shift to sustainable business models. They are being asked to address social issues and help achieve the Sustainable Development Goals (SDGs) through their main business activities, while also integrating sustainability initiatives into their management and business strategies.

Since its founding, Hitachi has had a Corporate Credo of contributing to society through the development of superior, original technology and products, and this has remained at the heart of its operations. Sustainability has been a primary consideration in our management, as we have sought to contribute to a sustainable society through our Social Innovation Business. We will further pursue sustainability management going forward and strive to continually enhance our corporate value in response to global trends.

Our 2021 Mid-term Management Plan, announced in May 2019, outlines a goal of contributing to the realization of a sustainable world by simultaneously increasing social, environmental, and economic value. Toward this end, we must regard sustainability as a management issue and strengthen our governance. In 2017, we thus created the Executive Sustainability Committee chaired by the president and CEO of Hitachi, Ltd. and comprising other members of the Senior

Executive Committee, along with the CEOs of every business unit, to discuss and reach decisions on the Group's sustainability strategy as a key management and business issue. The topics discussed at the Executive Sustainability Committee meeting in June 2018 included integrating our sustainability strategy into the 2021 Mid-term Management Plan to respond to climate change and to help achieve the SDGs through our business activities. Deliberations at the December 2018 meeting focused on expanding our decarbonization business and introducing the Hitachi Internal Carbon Pricing (HICP) system as specific approaches to achieving our long-term environmental targets (for CO_2 reduction). Other issues discussed included corporate measures that are the foundations of management, such as human rights, CSR procurement, and the development of human capital; sustainability-related stakeholder engagement; and Hitachi's disclosure policy on ESG information.

Climate change is a priority management issue for us at Hitachi, and we are striving to reduce CO_2 emissions throughout our value chain. We announced our long-term environmental targets called Hitachi Environmental Innovation 2050 in fiscal 2016 that includes a CO_2 reduction target of 80% throughout the value chain by fiscal 2050 (compared to fiscal 2010). To achieve a resource efficient society, we are responding to the issue of water scarcity and promoting the efficient use of water and other resources. We are also promoting the effective use of plastic and other resources to minimize our impact on natural capital to achieve a harmonized society with nature.

In response to growing calls in recent years from investors and other stakeholders for climate-related disclosures, we are advancing our efforts in line with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). In fiscal 2018, we participated in the Ministry of Economy, Trade, and Industry's TCFD Study Group on Implementing TCFD Recommendations for Mobilizing Green Finance Through Proactive Corporate Disclosures, which brought together private businesses and financial institutions for discussions on the development of guidelines on climate-related financial disclosures (TCFD Guidance) in promoting constructive dialogue between global corporations and investors.

This report outlines our strategies for climate-related risks and opportunities based on these TCFD discussions. It also contains detailed information on our ESG-related activities, which I hope will be pertinent to our readers.

We will continue to pursue sustained growth for both society and our company through dialogue with and proactive information disclosure to our stakeholders.
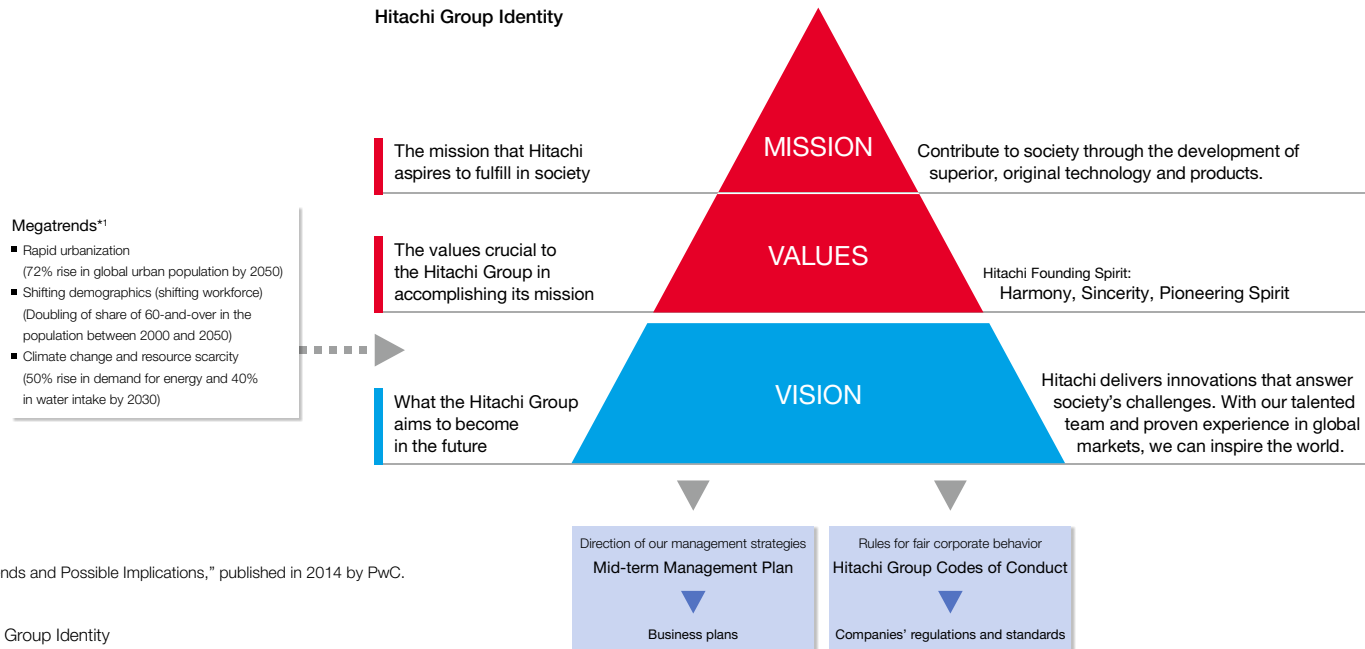
Corporate Credo

Hitachi Group Identity

Society is today undergoing great changes and faces a range of challenges, from rapid urbanization and shifting demographics to climate change and resource scarcity. The Hitachi Group's Corporate Credo is to contribute to society through the development of superior, original technology and products. To accomplish this mission, we uphold the values of Harmony, Sincerity, and Pioneering Spirit that comprise the Hitachi Founding Spirit. Our Group Vision was created based on this mission and these values to express what the Hitachi Group aims to become in the future. Together, these three elements—Mission, Values, and Vision—make up the Hitachi Group Identity.

Based on our Group Identity, and continuously considering the next generation, we promote corporate activities informed by sensitivity to the needs of a changing society. Our Mid-term Management Plan is the action plan we define to realize the Hitachi Group Vision; by integrating our management and sustainability strategies, we seek to enhance the effectiveness of this approach.

The implementation of our plan is a way for us to fulfill our responsibilities as a good corporate citizen through robust, diverse governance; the pioneering spirit and strong ethical stance of our employees; and operations that help address social issues. We operate and pursue our activities in line with the Hitachi Group Codes of Conduct, the guidelines for ethical behavior and decision-making shared by all executives and employees of the Hitachi Group.

Trends in Society and Hitachi Group Identity

Hitachi Group Identity

Megatrends*1
- Rapid urbanization
  (72% rise in global urban population by 2050)
- Shifting demographics (shifting workforce)
  (Doubling of share of 60-and-over in the population between 2000 and 2050)
- Climate change and resource scarcity
  (50% rise in demand for energy and 40% in water intake by 2030)

The mission that Hitachi aspires to fulfill in society

MISSION

Contribute to society through the development of superior, original technology and products.

The values crucial to the Hitachi Group in accomplishing its mission

VALUES

Hitachi Founding Spirit:
Harmony, Sincerity, Pioneering Spirit

What the Hitachi Group aims to become in the future

VISION

Hitachi delivers innovations that answer society's challenges. With our talented team and proven experience in global markets, we can inspire the world.

Direction of our management strategies
Mid-term Management Plan

Business plans

Rules for fair corporate behavior
Hitachi Group Codes of Conduct

Companies' regulations and standards

*1 Based on the "Five Megatrends and Possible Implications," published in 2014 by PwC.

Solidifying the Hitachi Group Identity

Sustainability Management

The 2021 Mid-term Management Plan and Sustainability Policy

Since its founding, Hitachi has responded to social challenges by placing its Corporate Credo of contributing to society through the development of superior, original technologies and products at the center of its business. In recent years, we have promoted our Social Innovation Business in order to contribute to improving people's quality of life and realizing a sustainable society. We have implemented sustainable management, placing sustainability at the center of our business strategy and—in our 2021 Mid-term Management Plan announced in May 2019 and ending in fiscal 2021—setting ourselves the goal of contributing to the realization of a sustainable world as a global leader of Social Innovation Business. We strive to simultaneously increase social, environmental, and economic value, as well as enhance our customers' corporate value and the peoples' quality of life.

With our 2021 Mid-term Management Plan, we have advanced to a new stage, identifying five sectors where we can increase social, environmental, and economic value for our customers simultaneously: mobility, smart life, industry, energy, and IT. In order to increase the three kinds of value simultaneously, we will expand our Social Innovation Business through collaborative creation with our partners around the world by providing Lumada, a solution that accelerates digital innovation, as a cyber-physical system allowing the cyber and physical spaces to interact.

Based on these ideas, we continue to pursue the 2021 Mid-term Management Plan, further merging sustainability and business to contribute to the resolution of social issues through initiatives like Society 5.0 and Sustainability Development Goals (SDGs).

🖱 Social Innovation Business

🖱 2021 Mid-term Management Plan

Enhancing Three Kinds of Value with Solutions in Five Sectors

Improving quality of life and adding value for customers

Social value | Environmental value | Economic value

Increasing social, environmental, and economic value through business and technology solutions in five sectors

Mobility solutions | Smart life solutions | Industry solutions | Energy solutions | IT solutions

⊙ LUMADA

Product | Product | Product | Product | Product
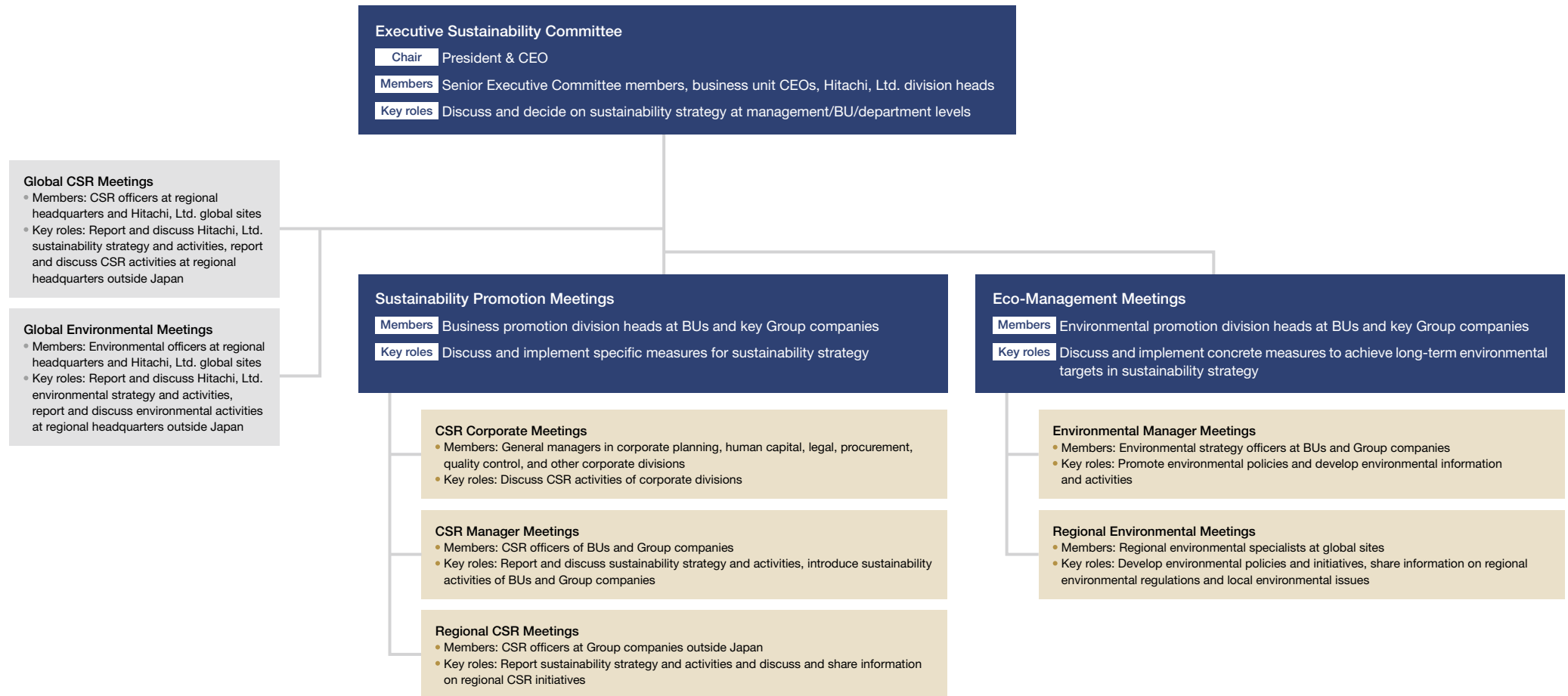
Sustainability Strategy Promotion Structure

In 2017, Hitachi, Ltd. launched the Executive Sustainability Committee to discuss and reach decisions on the Group's sustainability strategy. The committee comprises President and CEO Toshiaki Higashihara and other members of the Senior Executive Committee, along with the CEOs of every business unit.

Sustainability Promotion Meetings attended by sustainability strategy promotion officers from business units were also established under the committee to strengthen our systems for promoting specific measures for advancing sustainability, including contribution to achieving the SDGs. We aim to achieve a sustainable society through long-term corporate strategies focusing on ESG (environmental, social, and governance) in business activities as well as conventional CSR activities to take responsibility for our corporate impact on society and respond to requests from stakeholders.

To review and discuss CSR initiatives, CSR Corporate Meetings are regularly held by officers from corporate divisions of Hitachi, Ltd., as are CSR Manager Meetings attended by CSR and social contribution officers from business units and Group companies. Global and Regional CSR Meetings are also held regularly, allowing CSR officers from regional headquarters outside Japan to share common directions and exchange information with the aim of promoting sustainability. And, to discuss and implement specific measures to achieve long-term environmental targets, Eco-Management Meetings, whose members are environmental promotion officers from business units and Group companies, and Sustainability Promotion Meetings are working together. Global and Regional Environmental Meetings are also held regularly, allowing environmental initiative officers from regional headquarters outside Japan to share common directions and promote environmental initiatives.

The CSR and Environmental Strategy Division at Hitachi, Ltd., which played a leading role in CSR management and activities across the entire Hitachi Group, was enhanced and renamed the Sustainability Promotion Division in April 2018 in response to growing awareness and importance of sustainability in management and business. The new division is responsible for holding regular dialogue with stakeholders in each region in cooperation with regional headquarters. Through such dialogue, we endeavor to grasp global social issues promptly, extensively, and deeply, incorporating them into the issues our management deals with. At the same time, this dialogue lets us safeguard our corporate responsibility in a global society and make continued efforts to improve as we strive to achieve sustainable management and a sustainable society.

Sustainability Strategy Promotion Structure

Executive Sustainability Committee

| Chair | President & CEO |

| Members | Senior Executive Committee members, business unit CEOs, Hitachi, Ltd. division heads |

| Key roles | Discuss and decide on sustainability strategy at management/BU/department levels |

Global CSR Meetings
- Members: CSR officers at regional headquarters and Hitachi, Ltd. global sites
- Key roles: Report and discuss Hitachi, Ltd. sustainability strategy and activities, report and discuss CSR activities at regional headquarters outside Japan

Global Environmental Meetings
- Members: Environmental officers at regional headquarters and Hitachi, Ltd. global sites
- Key roles: Report and discuss Hitachi, Ltd. environmental strategy and activities, report and discuss environmental activities at regional headquarters outside Japan

Sustainability Promotion Meetings

| Members | Business promotion division heads at BUs and key Group companies |

| Key roles | Discuss and implement specific measures for sustainability strategy |

CSR Corporate Meetings
- Members: General managers in corporate planning, human capital, legal, procurement, quality control, and other corporate divisions
- Key roles: Discuss CSR activities of corporate divisions

CSR Manager Meetings
- Members: CSR officers of BUs and Group companies
- Key roles: Report and discuss sustainability strategy and activities, introduce sustainability activities of BUs and Group companies

Regional CSR Meetings
- Members: CSR officers at Group companies outside Japan
- Key roles: Report sustainability strategy and activities and discuss and share information on regional CSR initiatives

Eco-Management Meetings

| Members | Environmental promotion division heads at BUs and key Group companies |

| Key roles | Discuss and implement concrete measures to achieve long-term environmental targets in sustainability strategy |

Environmental Manager Meetings
- Members: Environmental strategy officers at BUs and Group companies
- Key roles: Promote environmental policies and develop environmental information and activities

Regional Environmental Meetings
- Members: Regional environmental specialists at global sites
- Key roles: Develop environmental policies and initiatives, share information on regional environmental regulations and local environmental issues

Executive Sustainability Committee Meetings

In fiscal 2018, the Executive Sustainability Committee held meetings in June and December.

At the June meeting, our response to climate change and the integration of our sustainability strategy into the 2021 Mid-term Management Plan were discussed. The focus was on how business units and key Group companies should link their operations to the SDGs in terms of business opportunities and risks, as well as how Hitachi should respond to risks and social demands around climate change. We also reviewed ESG, SDGs, and other sustainability initiatives to be incorporated into the 2021 Mid-term Management Plan.

At the December meeting, as part of our countermeasures against climate change, we discussed the expansion of our decarbonization business and introduction of the Hitachi Internal Carbon Pricing (HICP) system as specific approaches to achieving our long-term environmental targets (for CO_2 reduction). We also discussed corporate measures that are the foundations of management, like human rights, CSR procurement, and the development of human capital; sustainability-related stakeholder engagement; and specific information disclosure requirements.

Contribution to SDGs

Policy

SDGs and Hitachi's Social Innovation Business

We consider the SDGs an important initiative for realizing a sustainable society and improving people's quality of life through solving global social and environmental issues. We have significantly contributed to achieving the SDGs through our Social Innovation Business, which also serves as a source of sustainable growth for us.

Accordingly, through the provision of innovative solutions and products in our Social Innovation Business, we will strive to create social, environmental, and economic value as part of our management strategy. We will also strive to reduce negative social and environmental impacts resulting from our business and seek a deeper understanding of business risks arising from social and environmental changes to ensure greater robustness against them.

By proactively responding to social issues, Hitachi contributes to the achievement of all SDGs through its responsible corporate conduct and its Social Innovation Business.

Corporate Commitment

4 QUALITY EDUCATION   5 GENDER EQUALITY   8 DECENT WORK AND ECONOMIC GROWTH   12 RESPONSIBLE CONSUMPTION AND PRODUCTION   13 CLIMATE ACTION   17 PARTNERSHIPS FOR THE GOALS

Business Strategy

3 GOOD HEALTH AND WELL-BEING   6 CLEAN WATER AND SANITATION   7 AFFORDABLE AND CLEAN ENERGY   9 INDUSTRY, INNOVATION AND INFRASTRUCTURE   11 SUSTAINABLE CITIES AND COMMUNITIES

SUSTAINABLE DEVELOPMENT GOALS
17 GOALS TO TRANSFORM OUR WORLD

Hitachi contributes to the achievement of all SDGs both directly and indirectly through its business activities.

Identifying How Hitachi Can Contribute to the SDGs

In fiscal 2017 Executive Sustainability Committee meetings chaired by President and CEO Toshiaki Higashihara, the committee members considered the 17 SDGs, and the opportunities and risks they represented, and identified 11 Goals to the achievement of which Hitachi can make a particularly significant contribution: 5 Goals where we can make significant impact through our key business strategies, and 6 additional Goals that we must contribute to through our entire corporate activities. We view the latter 6 Goals as relevant to our entire business and management strategies, making an impact on corporate sustainability.

Because we are active in a broad range of business fields, we believe we can contribute extensively to the achievement of the SDGs other than the 11 Goals identified. Understanding that all SDGs are mutually related, we will endeavor to contribute to the achievement of all 17 SDGs both directly and indirectly.

Road Map for Achieving the SDGs

Developing a sustainable society as defined by the SDGs will lead to sustainable growth for Hitachi, too. We believe that we are providing value not only to the companies and consumers that are our direct customers but also to society more broadly. This is the essence of our Social Innovation Business. The products and services that we provide are all closely linked to social sustainability, and we aim to establish a global position as a business-to-society (B2S) company through our efforts to help achieve the SDGs.

In fiscal 2017, we officially launched strategic initiatives for achieving the SDGs. In phase 1, as part of our initiatives to help deepen understanding across the Hitachi Group of sustainability and the SDGs, sustainability workshops were held individually for four business units: Water, Energy Solutions, Healthcare, and Railway Systems. Sustainability newsletters were also issued in an effort to promote understanding and awareness of our SDG initiatives. In phase 2, our Sustainability Promotion Division worked with the planning divisions of business units and key Group companies to clarify how each could contribute to the achievement of the SDGs through their key businesses and create business opportunities from the SDGs.

In phase 3, starting in fiscal 2018, Hitachi started seeking new business opportunities emerging from social challenges addressed by the SDGs. Specifically, we clarified how each business unit and key Group company should link their Social Innovation Business to the SDGs and set quantitative KPIs, wherever possible, for the social and environmental value they created to help visualize improvements.

In fiscal 2019, we launched an initiative exploring ways to build a framework for assessing social and environmental impacts brought about by business activities, in order to make our efforts to create social and environmental value closely linked to the SDGs more appealing to our customers and society in a concrete manner. Moving forward, we will develop an impact assessment approach with reference to key businesses outlined in the 2021 Mid-term Management Plan, thereby establishing an impact evaluation framework for social and environmental value that can be used across the entire Group.

This approach will enable us to offer more sustainable business options to our customers based on consideration of the positive and negative social and environmental impacts of our business activities. In this way, we will realize the three kinds of value outlined in the 2021 Mid-term Management Plan.

FY 2017

Phases 1 and 2

Understand sustainability and the SDGs, clarify how key businesses are linked to the SDGs

- Increase understanding through sustainability messages from the CEO, symposiums, workshops, newsletters, etc.

- Work with planning divisions and other relevant departments at business units and key Group companies to clarify how their businesses are linked to the SDGs in terms of business opportunities and risks.

FY 2018

Phase 3

Incorporate sustainability perspectives in our management strategy

- Incorporate the vision of Hitachi's future business and growth originating from achieving the SDGs and sustainability (solving social issues) in the 2021 Mid-term Management Plan business strategy, based on the knowledge that realizing a sustainable society will make sustainable growth possible for Hitachi.

FY 2019 and beyond

Phase 3

Explore new business possibilities based on the motives of solving social issues

- Promote management focusing on social, environmental, and economic value.

- Explore building a framework for quantitatively assessing the impact of non-financial value created by the five focus sectors as set out in the 2021 Mid-term Management Plan.

The measures will be taken in collaboration with business units, major Group companies, corporate-related departments, and global sites (regional strategies).

Engagement and Participation in Initiatives

Stakeholder Engagement

Hitachi's Approach to Engagement　　　　　　　　　　`Policy`

Hitachi promotes its Social Innovation Business with efforts to accurately perceive the social issues in each country or region, followed by collaborative creation with customers, national and local governments, academic and research institutes, and other stakeholders to resolve them. We strive to enhance the value of human capital—which are indispensable management resources for conducting business—and place importance on direct dialogue between employees and senior management. Partly in recognition of the growing interest in ESG investment, we are also active in dialogue with shareholders and investors.

Stakeholders	Main Roles	Main Divisions	Means of Communication	Pages			
Customers	Creation of better products and services, response to complaints, appropriate disclosure of information on products and services	• Quality Assurance • Sales	• Customer satisfaction activities • Marketing • Website • Advertisement activities	📖 Quality and Safety Management 📖 Rigorous Information Management 📖 Customer Satisfaction	pp. 119–122 pp. 122–123 pp. 124–126		
Shareholders and Investors	Timely and proper information disclosure, fair assessment and support from capital markets, reflection of shareholder and investor viewpoints in corporate management	• Public Relations and IR	• Financial results briefings (quarterly) • General shareholders' meetings (annual) • IR events, one-on-one meetings (about 550 times/year) • IR tools: *Integrated Report*, business reports, etc.	📖 Stakeholder Engagement	pp. 19–25		
Suppliers	Building of fair and sound business relations, smooth information sharing toward better partnerships	• Procurement	• Procurement activities • Supplier meetings • CSR monitoring (345 companies/year) • CSR audits (24 companies/year)	📖 Responsible Procurement 📖 Respect for Human Rights Throughout the Value Chain	pp. 113–119 pp. 107–111		
Employees	Active utilization, proper treatment, promotion of occupational health and safety of human capital	• Public Relations • Human Capital	• Intranet, in-house newsletters • Training • Town hall meetings between senior management and employees (20 times/year) • Employee surveys (annual)	📖 Developing Global Human Capital 📖 Diversity and Inclusion 📖 Work-Life Management	pp. 86–91 pp. 91–96 pp. 96–100	📖 Occupational Health and Safety 📖 Freedom of Association and Collective Bargaining 📖 Stakeholder Engagement	pp. 100–106 pp. 111–112 pp. 19–25
National and Local Governments, Industrial Associations	Compliance with domestic and foreign laws and regulations, policy recommendations, participation in industry-government-academia collaborative projects	• Government & External Relations	• Policy council participation • Participation in business and industry associations	📖 Stakeholder Engagement 📖 Main Initiatives and Groups in Which Hitachi Is Involved	pp. 19–25 pp. 26–27		
Local Communities	Fulfillment of responsibilities as corporate citizen, involvement in local communities	• Social Contribution • All Business Divisions	• Contribution to local communities through business • Participation in volunteer activities	📖 Social Contribution Activities	pp. 127–131		
Academic Associations and Research Institutions	Promotion of technological innovations, participation in industry-government-academia collaborative projects	• Research and Development	• Open innovation (joint research)	📖 Innovation Management	pp. 79–84		
NGOs and NPOs	Incorporation of diverse public opinions, promotion of stakeholder-focused management, social contribution through nonprofit activities	• CSR Promotion	• Stakeholder dialogue (5 times/year) • Dialogue through collaboration	📖 Stakeholder Engagement 📖 Social Contribution Activities	pp. 19–25 pp. 127–131		
Global Environment	Realization of a low-carbon society, a resource efficient society, a harmonized society with nature	• Environment • All Business Divisions	• Stakeholder dialogues (annual)	📖 Environmental	pp. 28–77		

Framework for Promoting Engagement

The outcomes of communication with stakeholders are shared with respective divisions and actively utilized as valuable insights into our business. Public interest is growing in how corporations are taking in stakeholders' voices to improve their businesses, and we will continue to globally develop and promote ways of capitalizing on the opinions of the members of society with whom we engage in our business activities.

Hitachi's President and CEO Toshiaki Higashihara serves as chair of the Communications and Information Network Association of Japan (CIAJ),[*1] making efforts toward building a fulfilling society and promoting information and communication technology to contribute to resolving many social issues through exchanging views and opinions with relevant ministries and agencies.

*1 Communications and Information Network Association of Japan (CIAJ): A major ICT industry association consisting of manufacturers of communication network devices and terminals, communication operators, service providers, and user companies.

Working with Governments and Public Policymakers

Hitachi's Approach to External Relations Initiatives

We believe that it is governments that are best positioned to both understand and work to resolve social issues, whether at the national or regional level. As we develop our Social Innovation Business on a global scale, our activities in the social infrastructure field are particularly intertwined with the public interest. This makes government institutions and related organizations in Japan and other countries around the world important partners to Hitachi both as customers and as backers.

Today's global community urgently requires solutions for a range of social issues related to the environment, energy, aging societies, and urbanization. At the same time, innovation in the fields of internet of things (IoT) and artificial intelligence (AI)—the so-called fourth industrial revolution—is advancing rapidly. Like the Japanese government and its "Super Smart Society" (Society 5.0) proposal, governments around the world are expanding their support systems in response to these developments. For Hitachi, promoting our business according to legislative policies and making effective use of governmental advice and support systems is enormously helpful to us in advancing our Social Innovation Business. We also increasingly receive requests for proposals from the Japanese government as they seek to identify solutions for social issues and craft infrastructure support policies to resolve unique regional challenges. Assisting with these requests, whether directly or through participation in an economic organization or industrial body, is one way Hitachi contributes to a better society.

Appointed chair of Keidanren (Japan Business Federation) in 2018, Executive Chairman Hiroaki Nakanishi has since been working on policy recommendations for achieving the SDGs through realizing Society 5.0 under the theme of "Society 5.0 for SDGs." In the same way,

Framework for Promoting External Relations

Hitachi established the Government & External Relations Division in our corporate headquarters in fiscal 2009 to guide and accelerate the external relations of the entire Hitachi Group, and we have since worked to strengthen our relationships with government and industrial organizations. In fiscal 2018, we established the Government & External Relations Group by integrating this division with the Sustainability Promotion Division to achieve our new goals of further enhancing the global expansion of our Social Innovation Business in terms of external relations.

The Government & External Relations Group is not only active in Japan but also works with the Hitachi Corporate Office in Washington DC, the Hitachi Corporate Office, Europe, and other business locations in the Americas, Europe, Middle East, Africa, and the Asia Pacific. By dealing with governments and organizations as a unified Group in seeking mutual benefit with the communities we participate in, we explore new business opportunities for Hitachi in each community's unique social issues and policies.

Policy Council Participation

As part of our dialogue with government officials, Hitachi executives and other representatives participate in a range of government-sponsored policy councils. We are particularly active in the discussion of how best to realize "Society 5.0" advocated by the Japanese government, exploring ways to simultaneously resolve social issues and achieve economic growth. Executive Chairman Nakanishi has been a member of the governmental Council on Investments for the Future since its first meeting in September 2016. The council is a command post for the government's growth strategy, chaired by the prime minister of Japan. As a representative of a corporation contributing to the realization of "Society 5.0," Executive Chairman Nakanishi makes proposals in areas including the use of data, open innovation, and development of human resources.

The government's growth strategy, Investments for the Future Strategy, formulated based on discussions at the Council on Investment for the Future, outlines policies toward realizing "Society 5.0."

Staff and senior management from the Hitachi headquarters and business departments have also participated in meetings and roundtable discussions that look into policy from the standpoint of expanding businesses, as well as cooperating in planning new policies for Japan, including specific recommendations for more effective policy planning and implementation. For example, Hidenobu Nakahata, senior vice president and executive officer, is a member of the 2050 Economic and Social Structure Committee under the Industrial Structure Council of the Ministry of Economy, Trade and Industry (METI) to discuss a society for healthy longevity and extended working life; Osamu Naito, vice president and executive officer, is a member of the METI's Study Group on Implementing TCFD Recommendation for Mobilizing Green Finance Through Proactive Corporate Disclosure; and employees participate as advisors on the advisory committee on Japan's electric energy networks and investments established by the Agency for Natural Resources and Energy.

▌ Participating in Business and Industry Associations

Membership in business and industry associations is another critical aspect of our external relations. Hitachi is a member of Keidanren, where Executive Chairman Nakanishi was appointed chair in May 2018. Other executives and employees also participate in major Keidanren committees. As the planning and coordination chair for the subcommittee on Europe, we also maintain close economic relations with European governments and economic organizations. In relation to the United Kingdom's decision to withdraw from the European Union, commonly referred to as "Brexit," we have been communicating with both the United Kingdom and the European Union to continue maintaining stable business environment in the region as before.

President Higashihara serves as vice chair of the Japan Electronics and Information Technology Industries Association (JEITA), whose mission is to achieve Society 5.0, including through the promotion of Connected Industries, and thereby optimize society as a whole. As a corporate member of the association, Hitachi has been active in various committees and working groups, examining and making proposals on the promotion of IT and data utilization, working on elementary and secondary education issues while arranging for lectures at universities and other advanced educational institutions, and offering insights into paradigms of international legislation and agreements in the era of global business.

As a member of the Japan Electrical Manufacturers' Association (JEMA), Hitachi is committed to sustainable development of the electric machinery industry and contribution to a low-carbon society. To that end, we are working on various initiatives, including promotion of infrastructure systems exports, study of the impact of electric-power system reforms on the electric machinery industry and new business trends, improvement in the efficiency of industrial system devices, and promotion of the use of electricity storage systems, as well as actively communicating our views by participating in many committees and working groups.

▌ United States: Hitachi Corporate Office in Washington DC

The Hitachi Corporate Office in Washington DC has three missions: (1) Enhancing Hitachi's presence in the United States; (2) Contributing to the growth of business in the United States; and (3) Gathering and analyzing geopolitical intelligence. The North American market plays an important part in our business, accounting for 13% of our total revenue and more than 21,000 employees. The US political and economic climate has been rapidly changing in recent years, significantly impacting our business globally. We must monitor these changes closely in order to make critical business decisions, not just for the US but for other markets as well. Building reliable relationships and networks with influential leaders and experts including government representatives in the United States and enhancing our presence in those circles provide valuable feedback for our management and an emergency safety net.

As part of our efforts to expand our Social Innovation Business, the Hitachi Corporate Office in Washington DC is engaging in dialogue with and lobbying US government representatives and regulatory authorities to facilitate a favorable business environment. In recent years, particular focus has been placed on establishing relationship with state-level government authorities, who have decision-making power over regional infrastructure investment plans, as well as federal government officials, by working closely with regional Hitachi Group companies. By proactively enhancing engagement in many areas, including security and trade issues, new technologies such as IoT and AI, energy policies, and infrastructure investment, the Washington office will strive not only to support Hitachi's business growth but also to contribute to US society and the community.

Europe: Hitachi Corporate Office, Europe

The Hitachi Corporate Office, Europe, located in Brussels, monitors policy and legislation trends in the European Union, such as the European Commission and European Parliament, and analyzes their impact on Hitachi's business activities. It demonstrates how business can contribute to European policy and to societal issues.

Specifically, the office actively gathers information in the fields of energy, trade, information and telecommunications, transportation, healthcare, research and development, environment, CSR or ESG (Environmental, Social, and Governance), and SDGs (Sustainable Development Goals); communicates with relevant departments within the company and other Group companies; and makes policy contributions to EU institutions through business and trade associations like BUSINESSEUROPE, DigitalEurope, and the Japan Business Council in Europe (JBCE). We have also participated in the European Commission Product Environmental Footprint (PEF) pilot project since 2013 as part of our environmental policy activities, exchanging opinions, supporting the development of new policies, and helping to verify the environmental footprint calculation method announced by the European Union.

Regarding sustainable finance, non-financial information disclosure, and conflict minerals regulation, we maintain ongoing dialogues with the European Union's Directorate-General for Financial Stability, Financial Services, and Capital Markets Union and Directorate-General for Trade, and communicate our views on each field via the JBCE. We also actively participate in the EU-Japan Working Group on Corporate Social Responsibility, an EU-Japan industrial policy dialogue initiative. To promote engagement by and dialogue with business leaders, we work with affiliated organizations in Japan and Europe to organize and host the EU-Japan CSR Business Dialogue, striving to promote two-way dialogue in the field of sustainability after the conclusion of the Economic Partnership Agreement (EPA) between the EU and Japan to further advance joint cooperation toward common challenges and goals.

Since 1998, we have held the EU Hitachi Science & Technology Forum to deepen understanding of Hitachi's business. Starting in fiscal 2016, we have focused on our Social Innovation Business and, in fiscal 2019 we plan to hold discussions with policymakers and other diverse stakeholders about how business can use IoT technology to help achieve SDGs and resolving social issues, examining the very place of our Social Innovation Business in society. Through these activities Hitachi actively communicates with European stakeholders.

Asia-Pacific Region: Hitachi Asia Ltd., APAC Office

The Asia-Pacific region is replete with challenges in areas including the environment, energy, transportation, and healthcare that call for urgent solutions. At the same time, however, it offers a wealth of business opportunities. At Hitachi Asia, a core team made up of top-level managers from each national and regional office monitors legislative policies and legal regulations impacting businesses across the Asia-Pacific region and ensures that business activities remain suitable to each location's individual circumstances. On matters such as trade policies and data flow issues that have cross-border implications, solutions are sought through cross-border collaboration.

The Asia-Pacific region is known for its religious, political, and economic diversity. To expand our Social Innovation Business in this region and contribute to solving the social issues it faces, cooperation with national and local governments and involvement in policymaking throughout the region, including Japan, is crucial. For this reason, we sponsor regional events like the Hitachi Social Innovation Forum (HSIF) and Hitachi Young Leaders Initiative (HYLI) and endeavor to advance long-term and organic involvement in international scholarship programs through the Hitachi Global Foundation as part of our strategy to raise understanding and awareness of our values and vision for the future among those involved in formulating policy.

Hitachi has long emphasized information exchange and communication between Group companies on a national basis. Starting in fiscal 2017, we brought in outside specialists as external relations advisors to strengthen our voice in regional policymaking. As One Hitachi, we will continue to seek dialogue with policymakers across a variety of forums in order to resolve social challenges through policy contributions and business.

Engagement with Customers

`Objectives, Activities, and Achievements`

It is critical for Hitachi to gain stakeholders' understanding of its Social Innovation Business and corporate vision, which aspire to realize a sustainable society. We conducted a Global Brand Campaign in 16 countries under the slogan "THE FUTURE IS OPEN TO SUGGESTIONS," presenting examples of how Hitachi's Social Innovation Business is helping to address the many issues societies now face globally, such as energy issues, depletion of water resources, transportation issues linked to urbanization, healthcare issues associated with the graying of

society, advancement of big data and other information technologies, food safety, and information security.

To globally enhance the Hitachi brand, we have held the Hitachi Social Innovation Forum in locations worldwide, including Japan, the United Kingdom, Italy, Australia, the Philippines, and India, showcasing examples of the Social Innovation Business being conducted in each region. Through keynote speeches, panel discussions, and exhibits, we present a wide range of stakeholders—including customers and government officials—with solutions to social issues that countries and regions around the world face today.

Engagement with Employees

Since fiscal 2012, we have held town hall meetings as forums for direct dialogue between senior management and employees. In fiscal 2018, President and CEO Toshiaki Higashihara attended a total of 20 town hall meetings in Japan, the United States, Thailand, India, the Philippines, and other countries. Our executive vice presidents responsible for the four focus business domains also held more than 30 town hall meetings, engaging in discussions with our employees.

Ordinary business meetings and conferences are limited in agenda, and company communications with employees via our intranet and other channels tend to be one-way. Town hall meetings, however, are forums for direct dialogue where employees can gain a real sense of the senior management's way of thinking and what is needed for Hitachi to make the next leap forward, as well as occasions for reaching a shared understanding of the work in which everyone is involved. These interactions help drive mindset reform within Hitachi. For example, at one town hall meeting, a participant pointed out that existing structures and procedures made it difficult for junior-level staff to propose new business ideas. This ultimately led to the creation of an entirely new way for employees to make business proposals: an internal "New Ideas Contest" called "Make a Difference!"

In the town hall meetings, we believe that it is important for senior management to hear the thoughts of frontline employees and for both sides to share their awareness as they engage in dialogue on diverse topics, such as how we can grow our business.

Dialogue with Shareholders and Investors

Hitachi conducts extensive investor relations (IR) activities, focusing on dialogue with stakeholders, including institutional investors and analysts.

In fiscal 2018, we held quarterly financial results briefings as well as corporate strategy meetings on the progress of our 2018 Mid-term Management Plan. We also hosted the ninth consecutive annual Hitachi IR Day, where divisional management teams from each business explained their business strategies and management policies under the plan.

We held briefings on Hitachi's R&D Group, a source of value creation, Hitachi executives visited institutional investors and analysts in North America, Europe, and Asia to explain our management strategies for mid- and long-term growth, for a combined total of around 550 meetings. We are doing our best to reflect feedback in management and operations to enhance our corporate value.

On the Hitachi IR website, we post briefing materials and videos as well as business performance and stock price trend charts in a timely manner. As part of our efforts to enhance our information disclosure, we have introduced a new responsive design to allow smartphone and tablet users to browse our website with ease.

Investor Relations

Disclosure Policy

Stakeholder Dialogue

Hitachi organizes stakeholder dialogues in countries and regions around the world to invite opinions on social challenges from stakeholders representing specialized knowledge platforms and ensure that their insights are reflected in the business activities conducted at each of Hitachi's global businesses and business units.

The Information & Telecommunication Systems Segment's Contribution to SDGs

In March 2019, the Systems & Services Business, a section of our Information & Telecommunication Systems Segment, hosted a dialogue between Hitachi executives and external experts on the theme "Appreciation and Expectations Toward Hitachi Building Infrastructure for a Society Where People Can Live a Safe, Secure, and Comfortable Life with Digital Technologies." The discussion, led by the CEOs of the Financial Institutions Business Unit, Social Infrastructure Systems Business Unit, and Service & Platforms Business Unit and the CSO of the Systems and Services Business, was focused on how these three business units can promote the SDGs as part of corporate culture and connect them to business opportunities. One external expert commented, "Each business unit's business could positively or negatively affect society. Taking proactive steps toward the SDGs will not only contribute greatly to the sustainability of society, it could also be a growth driver for Hitachi." Another said, "The Social Infrastructure Systems Business Unit's information platform for regional comprehensive care is an initiative contributing to resolving the issues of an aging society with a declining birthrate as well as supporting the human rights of children and the disabled, helping achieve Goal 16 of the SDGs."

The dialogue was concluded by the following closing remarks from Hitachi: "We are committed to helping realize a sustainable society through social innovation, in accordance with our corporate mission. We will continue our efforts to raise awareness of this commitment among our employees and promote our business through collaborative cooperation along the value chain based on our policy of contributing to the SDGs."

The stakeholder dialogue held by the Information & Telecommunication Systems Segment.

Europe: AI and the Future of Work in the EU

In February 2019, Hitachi organized a European stakeholder dialogue in Brussels on the responsible development of digitalization for the future of work. Facilitated by CSR Europe,[1] 24 people attended, including representatives from the European Commission, International Labour Organization, NGOs, academia, and the wider tech sector.

Hitachi Rail STS's chief technology officer opened the event by outlining Hitachi's experience of digitalization and co-creating solutions with customers. The subsequent discussion focused on the potential impacts of digitalization, providing greater understanding of the issues leaders must consider. Attendees were generally optimistic about future scenarios, but some took a more cautious view. Any approach, it was agreed, must remain human-centric. Participants also discussed how policy and smart regulation could ensure that technology is applied responsibly in the context of the future of work. The emerging themes highlighted a need for corporations to lead with strong ethical platforms, integrated and transparent decision-making, and diverse workforces to drive innovation without bias. Participants were also clear on the importance of taking a collaborative approach with multiple stakeholders, particularly employees, if business is to adapt responsibly to the rapid changes caused by digitalization. Hitachi will use the results of this dialogue to guide its internal and external engagement on the future of work.

[1] CSR Europe is a leading European business network for corporate sustainability and responsibility.

A discussion of the stakeholder dialogue on AI and the future of work.

Philippines: The Social Challenges to Realizing Sustainable Urbanization

Hitachi Asia's Philippine Branch hosted the country's first-ever Hitachi stakeholder dialogue in March 2019 on the theme of "The Social Challenges to Realizing Sustainable Urbanization in the Philippines." The dialogue drew a total of 36 participants representing 3 Hitachi Group companies and 18 external organizations, including government agencies, private-sector companies, and civic groups. The aim of the dialogue was to foster and deepen collaboration between stakeholders in support of the United Nations' 17 Sustainable Development Goals (SDGs), and the keynote presentation was delivered by a senior Philippine government official, who explained the country's long-term plans and alignment with the SDGs.

The dialogue's first session focused on the sub-theme "Perspectives on Balancing Growth and Sustainability," examining sustainability reporting by listed firms and challenges in sustaining national infrastructure development programs. The second session's sub-theme was "Opportunities for Collaboration in Different Sectors." A senior representative from Hitachi clarified the meaning of "smart city" as human-centric rather than technology-focused, and government programs for multistakeholder collaboration were highlighted.

Participants learned about efforts by government, business and civil society in support of sustainable urbanization, and built trust to facilitate greater collaboration in future.

Australia: The Business Implementation of the SDGs in Oceania

In March 2019, Hitachi Australia and KPMG Australia cohosted a stakeholder dialogue on the business implementation of the SDGs in Oceania. The 14 participants included CSR and sustainability representatives from a diverse group of organizations, including Downer Group, Unilever Australia Ltd., SunRice, Fujitsu Australia Ltd., Insurance Australia Group Ltd. (IAG), Transurban Ltd., and National Roads and Motorists' Association Ltd. (NRMA).

In preparation for the 2021 Mid-term Management Plan and its accompanying sustainability strategy, Hitachi Australia sought to understand how other Australian companies approach the SDGs and to what extent their business strategies and targets are influenced by these global goals. Participants agreed that making SDGs central to business strategy will soon be the norm.

During the half-day discussion, participants shared insights into how to better engage employees in the development and achievement of these strategies and how to measure the outcomes and impact of planned actions. The group also emphasized the strong need for business and government to work more closely than ever to realize the benefits of these initiatives.

The key takeaways were summarized in a report which was shared with Hitachi Australia's management and can be leveraged during further development of regional sustainability strategy.

Participants in the stakeholder dialogue on the business implementation of the SDGs in Oceania.

India: The Business Contribution Toward the SDGs in India

Working toward developing a sustainable society, Hitachi India held the CSR India Stakeholder Dialogue 2018 on October 25 in New Delhi. The event was attended by 32 external and internal stakeholders, including Hitachi Asia's Chairman Kojin Nakakita and Hitachi India's Managing Director Bharat Kaushal.

The dialogue focused on the role of the private sector and how business can contribute to the SDG agenda in India, particularly in the areas of e-Education, e-Governance, and urban transportation. Participants shared their understanding and experiences of how companies can align their way of working with the SDGs. During the discussion, the need to inculcate sustainability into one's business model to ensure long-term impact was emphasized. It was also acknowledged that, given the size and complexity of the challenges, a collaborative approach rather than an individual effort will be required to achieve the SDGs.

Based on the key learnings from the dialogue, Hitachi will persevere in its ambitious efforts to incorporate sustainability into its business. By proactively responding to social issues, and through collaborative creation with various stakeholders, Hitachi will continue contributing to achieving the SDGs.

Main Initiatives and Groups in Which Hitachi Is Involved

United Nations Global Compact

Hitachi, Ltd. became a full member of the United Nations Global Compact in February 2009. Our corporate foundation is the basis for our continuing growth as a global company, and it must meet internationally recognized global standards that go beyond national and regional laws and regulations. We believe that respecting and implementing the 10 principles of the UN Global Compact will build a stronger foundation for our business.

In fiscal 2018, the Hitachi Group also participated in workshops organized by the Global Compact Network Japan on seven different topics, including human rights, supply chain management, and the UN's Sustainable Development Goals (SDGs).

World Business Council for Sustainable Development

The World Business Council for Sustainable Development (WBCSD) is an organization led by CEOs of around 200 progressive companies around the world. Its aim is to create a sustainable future for business, the environment, and societies. Hitachi, Ltd. has participated in the WBCSD since 1995.

Task Force on Climate-related Financial Disclosures

In June 2018, Hitachi announced its support for the Task Force on Climate-related Financial Disclosures (TCFD), which was established by the Financial Stability Board to encourage disclosure of information about climate-related risks and opportunities.

Japan Climate Initiative

The Japan Climate Initiative (JCI) is a network formed to improve information-sharing and discussion between companies, local governments, NGOs, and other organizations actively working to address climate change in Japan. Hitachi has been a member since the JCI's founding in 2018.

Business for Social Responsibility

Founded in 1922, Business for Social Responsibility (BSR) is an international NPO with a focus on CSR. Together with over 250 corporate members and external partners around the world, it uses its global network for activities designed to build a fair, sustainable world. Hitachi joined BSR in 2007, and has participated in the organization's human rights sessions since fiscal 2016.

International Standardization Activities

Hitachi's Approach to International Standardization

Policy

To help create and expand markets as well as to accelerate our global business expansion, we are actively involved in developing international standards through participation in the activities of international standards-developing organizations such as the International Electrotechnical Commission (IEC) and the International Organization for Standardization (ISO). Additionally, by contributing to international standardization efforts by consortia and other bodies, and providing solutions consistent with international standards, we support the development of sound global markets and facilitate innovation to resolve social issues.

Framework for Promoting International Standardization Activities

Frameworks and Systems

As part of its efforts toward international standardization activities, Hitachi commits employees to serve on the IEC's Market Strategy Board as well as other key positions such as technical committee chairperson and secretary at international standardization organizations like the ISO.

Additionally, the Hitachi Group Standardization Committee was established to coordinate the efforts of all Hitachi Group companies toward international standardization. The Steering Committee[1] of this body determines priority themes and promotes standardization activities by establishing working groups for each theme.

*1 Steering Committee: Headed by the executive officer overseeing R&D, this entity includes chief technology officers of Hitachi business units and key Group companies. The committee is responsible for decisions on cross-departmental and companywide standardization projects.

Assessment of Hitachi's International Standardization Activities

Objectives, Activities, and Achievements

Hitachi's international standardization work is well regarded. In fiscal 2018, we were honored by such bodies as the IEC, the Ministry of Economy, Trade, and Industry, the Telecommunication Technology Committee, and the Railway Technology Standardization Investigation Committee.

Hitachi Group Standardization Committee
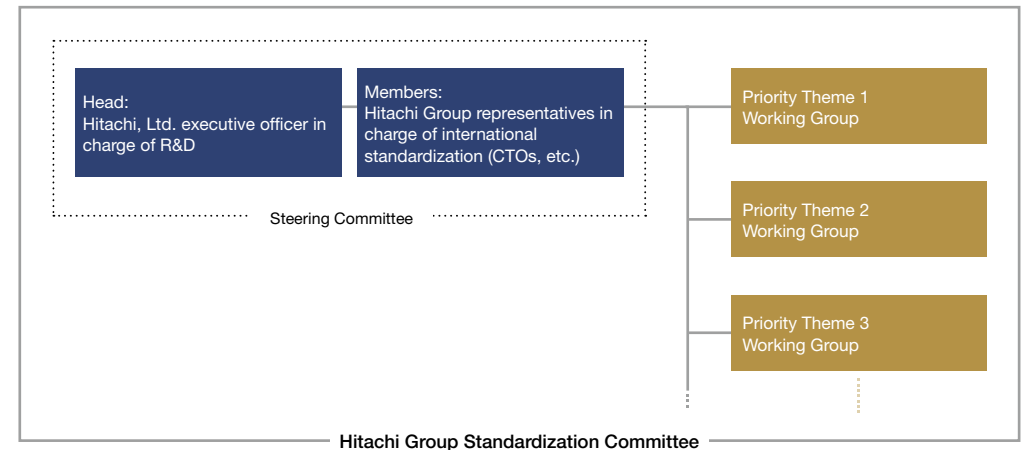
Environmental

Striving to Increase Environmental Value

Hitachi aims to achieve a low-carbon society, a resource efficient society, and a harmonized society with nature under its Environmental Vision. To this end, we strive to achieve the long-term environmental targets of Hitachi Environmental Innovation 2050 not just within Hitachi itself but across our entire value chain. Additionally, we support the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), and are actively advancing our efforts to clarify and disclose information on climate-related risks and opportunities.

CONTENTS

The natural forest at the Central Research Laboratory of Hitachi, Ltd., where the new R&D center to accelerate new innovation through open, collaborative creation, "Kyōsō-no-Mori," was opened (Kokubunji, Tokyo).

Advancing Our Environmental Vision and Long-Term Environmental Targets

Hitachi's Approach

Hitachi's Corporate Credo is to "contribute to society through the development of superior, original technology and products." We seek solutions to environmental issues, which are of serious concern to society, through our business operations and promote environmental management from a long-term perspective. Meeting society's expectations with innovations that mitigate environmental issues also presents major business opportunities.

Guided by our Environmental Vision defining our future environmental goals, in September 2016 we announced a set of long-term environmental targets called Hitachi Environmental Innovation 2050 aimed at achieving a low-carbon society, a resource efficient society, and a harmonized society with nature. To achieve these targets looking toward 2030 and 2050, we promote Group-wide environmental activities in line with our Environmental Action Plan that is updated every three years.

We will make steady efforts to achieve the targets set forth in Hitachi Environmental Innovation 2050 to help resolve environmental issues and to conduct environmental management in a manner that meets the expectations of society.

Our Impact on Society

GHG emissions throughout value chain

141.49 Mt-CO_2e

Our Performance

Reduced CO_2 emissions from products/services

34% (base: FY 2010)

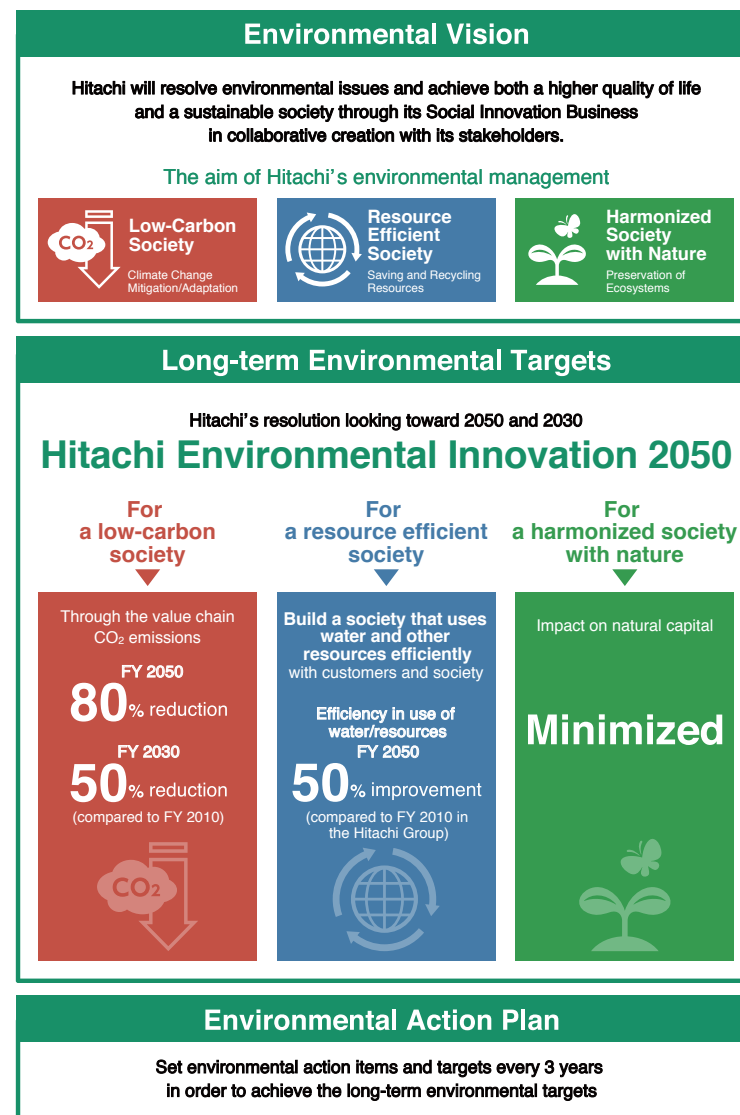# The Environmental Vision and Hitachi Environmental Innovation 2050

As climate change, resource depletion, ecosystem destruction, and other environmental issues grow more serious, the responsibilities and contributions of companies are growing, given the increasing demands and expectations for reductions in the environmental burden of their business activities.

The 2013 *Fifth Assessment Report* of the Intergovernmental Panel on Climate Change (IPCC) concluded that limiting global warming "below 2°C relative to pre-industrial levels" would require "40 to 70% global anthropogenic GHG emissions reductions by 2050 compared to 2010." The IPCC's 2018 *Special Report on Global Warming of 1.5°C*, moreover, emphasized that many of the consequences of climate change can be averted if the increase in temperature is maintained below 1.5°C. The 24th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP24) held in December 2018 adopted guidelines for the implementation of the Paris Agreement, which entered into force in 2016. And in addition to climate change, such environmental issues as those involving the water supply, resources, and the ecosystem are being debated around the world.

In response to global demands for a reduced environmental burden, we created a management strategy called the Environmental Vision, which declares, "Hitachi 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." We have clearly stated our aim to achieve a low-carbon society, a resource efficient society, and a harmonized society with nature—the components of a sustainable society—in accordance with this Vision. To guide our efforts toward 2030 and 2050, in September 2016 we established long-term environmental targets called Hitachi Environmental Innovation 2050. We are steadily promoting environmental activities to achieve these long-term goals in line with our Environmental Action Plan, which is updated every three years. Currently, we are further strengthening our environmental activities in working toward the targets of the Environmental Action Plan for 2021 (covering fiscal 2019–21), formulated in line with the 2021 Mid-term Management Plan.

Our environmental strategy, centered on the Environmental Vision and our long-term environmental targets, is deliberated by the Executive Sustainability Committee, chaired by the president and CEO, and advanced by the Hitachi Group as a whole.

Environmental Vision

Hitachi 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.

The aim of Hitachi's environmental management

| CO_2 **Low-Carbon Society** Climate Change Mitigation/Adaptation | **Resource Efficient Society** Saving and Recycling Resources | **Harmonized Society with Nature** Preservation of Ecosystems |

Long-term Environmental Targets

Hitachi's resolution looking toward 2050 and 2030

Hitachi Environmental Innovation 2050

For a low-carbon society	**For a resource efficient society**	**For a harmonized society with nature**
Through the value chain CO_2 emissions	Build a society that uses water and other resources efficiently with customers and society	Impact on natural capital
FY 2050 **80**% reduction	Efficiency in use of water/resources FY 2050 **50**% improvement (compared to FY 2010 in the Hitachi Group)	**Minimized**
FY 2030 **50**% reduction (compared to FY 2010)		

Environmental Action Plan

Set environmental action items and targets every 3 years in order to achieve the long-term environmental targets

Hitachi's Environmental Vision

Environmental Governance

Enhancing Environmental Governance

To achieve our Environmental Vision and reach our long-term environmental targets, we are enhancing environmental governance by building a global structure to support environmental decision-making and implementation at Hitachi, Ltd. and 803 consolidated subsidiaries (a total of 804 companies as of March 31, 2019).

Important items related to environmental initiatives are deliberated by the Executive Sustainability Committee, chaired by the president and CEO of Hitachi, Ltd., and attended by top Hitachi executives. To develop ways to achieve our long-term environmental targets and reduce

environmental compliance risks, the three-year Hitachi Group Environmental Action Plan is formulated in line with the Mid-term Management Plan by environmental promotion division heads from business units and major Group companies participating in Eco-Management Meetings. Targets (and measures to achieve them) in the Environmental Action Plan that affect not only our environmental strategy but also our business strategy—like those to reduce the CO_2 emissions of our products and services—are determined jointly by the Eco-Management Meetings and Sustainability Promotion Meetings, attended by business promotion division heads. A progress report concerning important targets in the Environmental Action Plan is made to the Executive Sustainability Committee, and instructions from committee members are reflected in actual environmental activities.

Group-wide efforts to advance environmental activities are undertaken outside Japan as well. Environmental officers are assigned to China, the rest of Asia, the Americas, and Europe to share information on the state of progress of our environmental activities and on the latest environmental regulations in each country and region. Respective Regional Environmental Meetings are also held once or twice a year.

Sustainability Strategy Promotion Structure
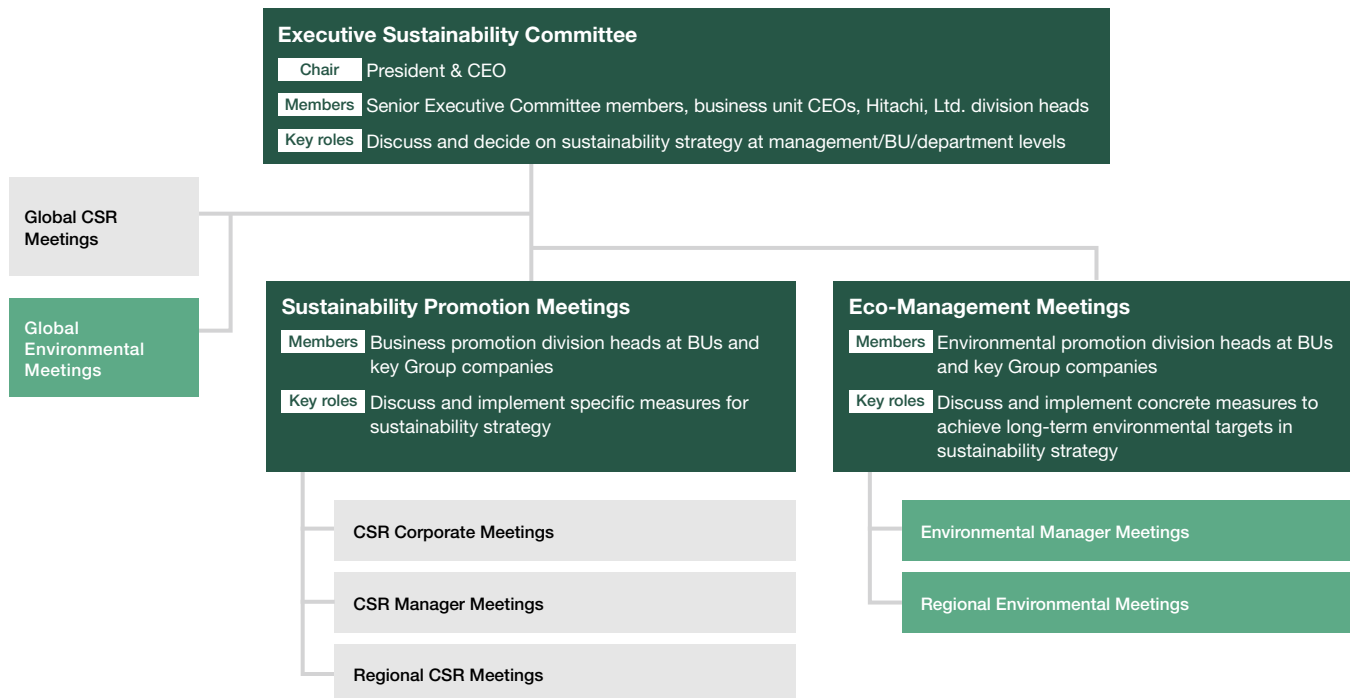
Environmental Action Plan

Hitachi incorporates its environmental strategy into its management strategy in order to achieve its Environmental Vision and the Hitachi Environmental Innovation 2050 long-term environmental targets. Toward this end, the Environmental Action Plan is drawn up every three years in accordance with the Mid-term Management Plan.

Environmental Action Plan for 2018: Results

Hitachi has pressed forward with environmental activities based on the Environmental Action Plan for 2018 (fiscal 2016–2018), which stipulated detailed activities and high targets to tackle by fiscal 2018.

For our performance in fiscal 2018, its final year, we were able to achieve the goals for key indicators except two: "improve environmental performance" of "products and services" and "reduce energy use" of "factories and offices: climate change response." For the former, the sales of environmentally high performance products and services fell short of our forecast, and for the latter, the amount of energy use increased due to the in-house-manufacture of the products that used to be outsourced and the decrease in sales in energy intensive business divisions.

Management

Item	Indicator	Fiscal 2018 target	Fiscal 2018 result	Achievement level
Strengthen global environmental management	Voluntary implementation of environmental monitoring by business units and Group companies at overseas business sites (implementing sites/total targeted)	80% or higher (cumulative total)	90%	◆◆◆

Products and Services

Item	Indicator	Fiscal 2018 target	Fiscal 2018 result	Achievement level
Improve environmental performance	Rate of reduction in CO_2 emissions from use of products and services (base: FY 2010)	40%	34%	◆◆

Factories and Offices: Climate Change Response

Item	Indicator	Fiscal 2018 target	Fiscal 2018 result	Achievement level
Reduce energy use	Reduction in energy use per unit (base: FY 2005)	17%	14%	◆◆

Factories and Offices: Enhance Efficiency of Water Usage

Item	Indicator	Fiscal 2018 target	Fiscal 2018 result	Achievement level
Enhance efficiency of water usage	Reduction in water use per unit (base: FY 2005)	27%	34%	◆◆◆

Factories and Offices: Use Resources Efficiently

Item	Indicator	Fiscal 2018 target	Fiscal 2018 result	Achievement level
Reduce waste generation	Reduction in waste and valuables generation per unit (base: FY 2005)	14%	16%	◆◆◆

Factories and Offices: Manage Chemical Substances

Item	Indicator	Fiscal 2018 target	Fiscal 2018 result	Achievement level
Reduce emissions of chemical substances	Reduction in atmospheric emissions of chemical substances per unit (base: FY 2006)	36%	40%	◆◆◆

Ecosystem Preservation

Item	Indicator	Fiscal 2018 target	Fiscal 2018 result	Achievement level
Contribute to ecosystem preservation	New ecosystem preservation activities implemented	600	953	◆◆◆

◆◆◆ Achieved ◆◆ Partially achieved

Environmental Action Plan for 2021 (Fiscal 2019–2021)

We developed the Environmental Action Plan for 2021 in line with the 2021 Mid-term Management Plan, and we will further enhance our measures to achieve the Hitachi Environmental Innovation 2050 long-term environmental targets. They have been reclassified into 27 targets in four categories, namely, the three societies, as set out in the targets—a low-carbon society, a resource efficient society, and a harmonized society with nature—and environmental management.

For a low-carbon society, the original goals of improving environmental performance and reducing energy use have been revised to "reduce CO_2 emissions from products and services" and "reduce CO_2 emissions from business sites," which are more closely aligned with our long-term

targets. For a resource efficient society, a new goal, "respond to water shortages," has been added to such goals as enhancing the efficiency of water and resource usage. For a harmonized society with nature, we have set a new goal of calculating impact per BU and Group company in order to "reduce impact on natural capital" in addition to such goals as "reduce emissions of chemical substances." GREEN 21 is used as a system for evaluating and managing the achievement made over the three years for each goal.

The following is a list of major goals for the first and the final years of the Action Plan covering the three years from fiscal 2019 to 2021.

Environmental Action Plan Achievement Evaluation System: GREEN 21

Environmental Action Plan for 2021
Our environmental activities and targets are updated every three years with a view to achieving our long-term environmental targets.

Environmental Management

Items	Indicators	Fiscal 2019 targets	Final fiscal year (2021) targets
Promote environmental human capital development	Environmental human capital development of the Hitachi Group		
Enhance global environmental management	Implementation rate of voluntary environmental audits (number of implementing sites/number of sites outside Japan)	20%	80%

A Low-Carbon Society

Items		Indicators	Fiscal 2019 targets	Final fiscal year (2021) targets
Products & services	Reduce CO₂ emissions of products and services	Reduction rate of CO₂ emissions (base: FY 2010)	19%	21%
	Address climate change risks and opportunities	Identification and review of risks and opportunities		
Factories & offices	Reduce CO₂ emissions of factories and offices	Reduction rate of CO₂ emissions per unit (base: FY 2010)	7%	9%
	Reduce CO₂ emissions from transportation (shipping)	Reduction rate of transportation energy consumption per unit (Japan) (base: FY 2010)	9%	11%

A Resource Efficient Society

Items		Indicators	Fiscal 2019 targets	Final fiscal year (2021) targets
Water circulation (factories and offices)	Enhance efficiency in the use of water Respond to water shortages	Reduction rate in water use per unit (base: FY 2010)	23%	26%
		Promotion of water risk management based on water stress survey results		
Resource circulation (factories and offices)	Enhance efficiency in the use of resources Reduce and recycle waste materials	Reduction rate in waste and valuables generation per unit (base: FY 2010)	10%	12%
		Waste landfill rate	14%	12%

A Harmonized Society with Nature

Items	Indicators		Fiscal 2019 targets	Final fiscal year (2021) targets
Chemical substances (factories and offices)	Reduce chemical emissions	Reduction rate in chemical atmospheric emissions per unit (base: FY 2010)	16%	18%
Ecosystem preservation	Reduce impact on natural capital	Calculation of positive and negative impact (environmental load, forest conservation activities, etc.)		

Evaluation system for the achievement of the Environmental Action Plan	GREEN 21

Environmental Management System

Enhancing the Environmental Management System

Hitachi has built an environmental management system to promote activities aimed at attaining the goals of the Environmental Action Plan.

We have established globally applicable environmental classification criteria to conduct environmental management properly and efficiently in accordance with the environmental load and compliance risk levels of Group business sites, both large and small. We assign a score for each classification item, such as the amount of power consumed, the volume of waste generated, and whether or not legal restrictions apply. All Group business sites are then classified into A, B, or C, and environmental management is conducted according to the respective level of risk. Of our approximately 1,200 business sites, about 200 major manufacturing sites are classified as A, a category accounting for more than 90% of the Group's total environmental load.

The business units and Group companies with category A manufacturing sites participate in Eco-Management Meetings to draw up the Environmental Action Plan. The plan is then disseminated throughout the BUs and Group companies by environmental strategy officers, chosen from among the heads and general managers of those organizations.

The corresponding BUs and Group companies formulate their own environmental action plans based on the Hitachi Group plan. Our environmental management system is thus a product of a Group-wide effort, extending from the stage of formulation to implementation.

In addition to adhering to an in-house environmental management system, all our global category A manufacturing sites have acquired external certification, such as ISO14001. By seeking the opinions of external experts, we have developed a framework for Group-wide improvements in our environmental activities.

Status of ISO 14001 Certification (Hitachi Group, as of March 31, 2019)

	Total
Number of certified companies*1	239

*1 Companies with at least one certified business site.

Americas 16
Europe 13
China 56
Rest of Asia, etc. 55
Japan 99
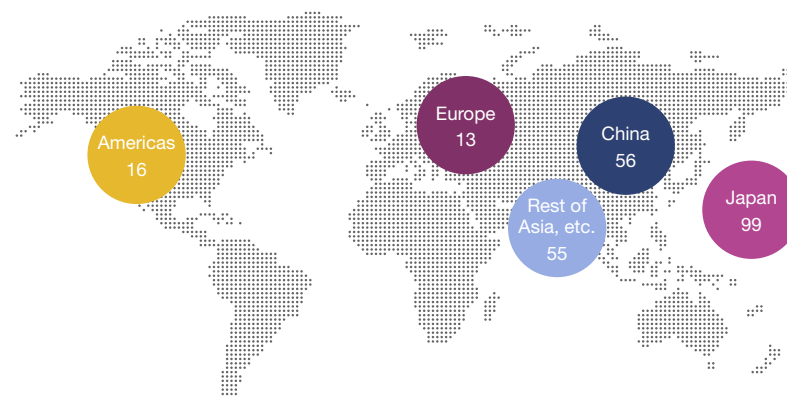
List of ISO 14001-Certified Companies

Collecting and Monitoring Environmental Performance Data to Improve Environmental Practices

To conduct environmental management efficiently and effectively, we collect data on the environmental performance of business operations using the Environmental Data Collection System (Eco-DS). The system supports three languages (Japanese, English, and Chinese) and enables some 1,200 Hitachi business sites, including factories, research laboratories, and offices in over 60 countries, to extensively monitor and register about 20 items, ranging from environmental load data on items such as energy use, water use, and waste generation, to

whether an item falls under relevant environmental laws and regulations, to environmental accounting. We have also set up an international help desk to support the system's operation and promote understanding of environmental management at each business site.

The collected data is aggregated and analyzed by the Sustainability Promotion Division, as well as by the administrative division of each business unit and Group company, and is used to identify environmental management issues, share instructive examples within the Group, and apply the PDCA cycle to improve environmental practices.

At the approximately 200 Hitachi manufacturing sites that have been prioritized for monitoring under our environmental classification criteria, we aggregate and analyze data on such key items as energy, waste materials, and water on a monthly basis, implementing measures to reduce the environmental burden and achieve the targets of our Environmental Action Plan.

Environmental Data Collection System
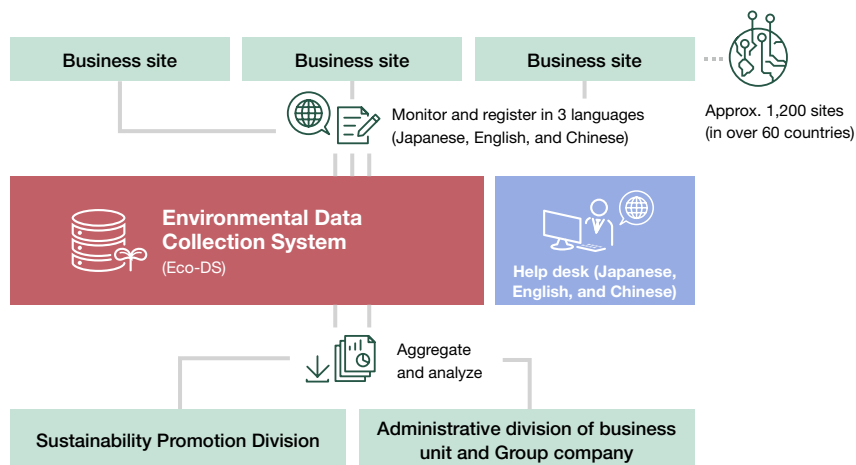
Environmental Action Plan Achievement Evaluation System: GREEN 21

GREEN 21 is used as a system for evaluating and managing our achievements made over three-year periods toward the targets set in our Environmental Action Plan.
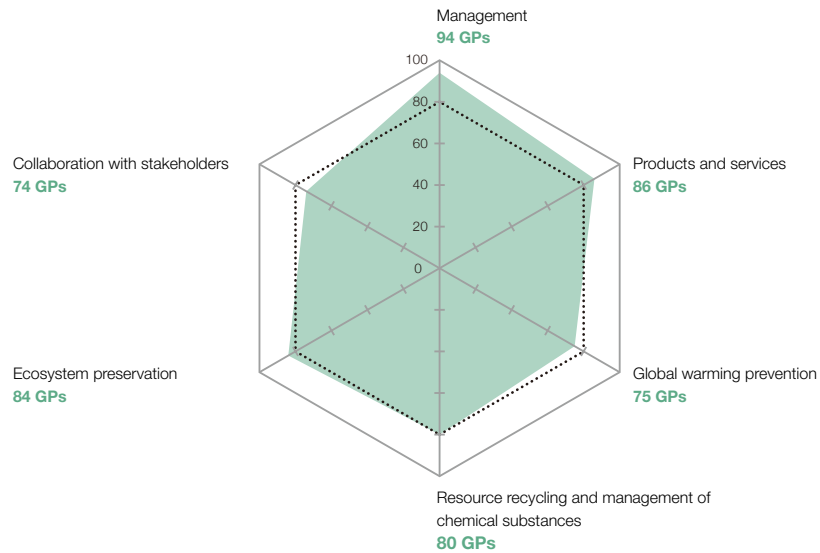
GREEN 21 uses the environmental load data registered in our Environmental Data Collection System (Eco-DS) to convert the success shown by each of approximately 200 major manufacturing sites at reaching the targets of the Environmental Action Plan into green points (GPs), then evaluates each site's progress on a category-by-category basis. A perfect score for any category is 100 GPs. Meeting the Environmental Action Plan's first-year targets is worth 40 GPs, meeting the second-year targets 60 GPs, and meeting the final-year targets 80 GPs. Points are also awarded for particularly ambitious and motivated activities, as an incentive, and progress made on the three-year Environmental Action Plan is comprehensively evaluated. Representing this progress as GPs shows how much each site has achieved in each category, and allows sites to be compared with each other, the results of which are in turn used in the Environmental Action Plan's PDCA (plan-do-check-act) cycles.

The Sustainability Promotion Division also uses the results of the GREEN 21 evaluation as a condition for awarding its Eco-Factories & Offices Select certification for business sites that promote activities demonstrating a high level of environmental consciousness and produce notable results in that area.

From fiscal 2019, progress will be evaluated and managed for individual categories newly created based on the Environmental Action Plan for 2021, and this will be used to promote further environmental activities.

Key Indicators

● GREEN 21: FY 2018 Evaluation Results (Hitachi Group)

Management
94 GPs

Products and services
86 GPs

Collaboration with stakeholders
74 GPs

Global warming prevention
75 GPs

Ecosystem preservation
84 GPs

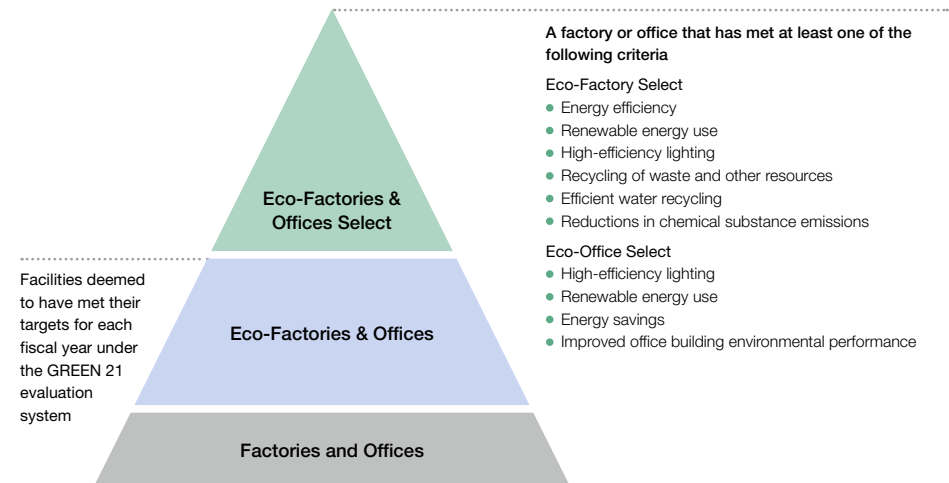Resource recycling and management of chemical substances
80 GPs

Reducing the Environmental Burden Through "Eco-Factories & Offices Select" Certification

To reduce the environmental burden of our business sites, since fiscal 2011 the Sustainability Promotion Division has implemented an "Eco-Factories & Offices Select" certification program for business sites that promote activities demonstrating a high level of environmental consciousness and produce notable results in that area. This helps raise the environmental awareness of employees and promote environmentally conscious activities at our business sites.

Based on certification criteria that were developed for our manufacturing (factory) and nonmanufacturing (office) divisions globally, we certify existing factories that actively engage in improvements to achieve efficient production and new offices that have been environmentally designed from the start. Superior policies from certified factories and offices are shared with the entire Group, with other locations encouraged to implement them as well. To maintain and raise the level of environmental awareness through Eco-Factories & Offices Select, certified factories and offices are re-evaluated every fiscal year to confirm that their performance continues to meet requirements. In fiscal 2018, 6 facilities were newly certified, 2 facilities were recertified and 61 facilities had their certifications renewed. The total number of certified factories and offices was 69.

Eco-Factories & Offices Select Certification Criteria

Eco-Factories & Offices Select

A factory or office that has met at least one of the following criteria

Eco-Factory Select
● Energy efficiency
● Renewable energy use
● High-efficiency lighting
● Recycling of waste and other resources
● Efficient water recycling
● Reductions in chemical substance emissions

Eco-Office Select
● High-efficiency lighting
● Renewable energy use
● Energy savings
● Improved office building environmental performance

Facilities deemed to have met their targets for each fiscal year under the GREEN 21 evaluation system

Eco-Factories & Offices

Factories and Offices

Eco-Factories & Offices

Environmental Education for Employees

Hitachi believes that promoting greater environmental awareness and understanding among employees is essential to efforts to energize its environmental activities. Toward that end, we offer general education using e-learning for all Group employees, from new hires to executives. We also provide specialized Hitachi Group training on environmental risks and compliance with environment-related laws and regulations for working-level employees in charge of environmental management and internal environmental auditors.

Environmental Education and Training System

Target		Introductory	Beginning	Intermediate	Advanced
General education	All employees	Introductory training for new employees			
		Online e-learning: Eco-Mind education (General topics: Global environmental issues, environmental law, etc.)			
			Online e-learning: Eco-Mind education (Hitachi Group topics: Environmental policy, Environmental Action Plan, etc.)		
Specialized education	Working-level employees	Basic environmental management course for working-level employees (management of waste, air/water quality, & hazardous materials; development & operation of management systems; etc.)			
			Education for Eco-Factories		
			Eco-Product development training		
			Risk communicator training		
	Internal environmental auditors			ISO 14001 auditor brush-up training	
				ISO 14001 auditor certification training	ISO 14001 senior auditor certification training

Actions and Achievements

For general education aimed at all employees, we offer Internet-based e-learning courses in Japanese, English, and Chinese to heighten familiarity with our Environmental Vision and long-term environmental targets called Hitachi Environmental Innovation 2050. In fiscal 2018, 156,233 employees worldwide received this training.

For employees working in air, water quality, and waste management, we also provide specialized Hitachi Group training on recent amendments to laws and operational procedures as well as on basic environmental management. In fiscal 2018, we offered legal compliance education for internal environmental auditors and working-level employees. In Japan, 159 people from 48 companies attended courses (October 2018) on social responsibility that examined revisionary trends in environmental laws and case studies of things to avoid. In China, 73 people from 41 companies attended working-level courses in Beijing (September 2018) to not only deepen understanding of regulatory amendments but also to learn about the initiatives taken at Group business sites to save energy, recycle water, and reduce volatile organic compounds (VOCs). In addition, they deepened their understanding of the Sustainable Development Goals (SDGs) at a seminar organized by an external consulting company.

The enforcement of China's environmental laws and regulations has been growing more stringent under the guidance of the central government, and the number of charges and penalties has increased sharply. An environmental management training program—attended by 44 people from 36 companies—was held in Beijing, China, in March 2019 to reduce environmental risks and raise the knowledge of working-level employees. The program featured lively group discussions on various issues, including points worth noting in environmental compliance.

In addition to Hitachi Group training, individual companies and units provide education tailored to their own business area.

Environmental Compliance

In conducting business activities around the world, Hitachi seeks to minimize environmental risks to ensure compliance with the laws and regulations of each country and region.

One such effort is by setting and monitoring compliance with voluntary management criteria that are more stringent than regulatory requirements. In the unfortunate event that we do find a

violation or receive a complaint, we take steps to enhance environmental risk management by sharing the causes and countermeasures throughout the Group and preventing a recurrence of similar incidents.

To further mitigate environmental risks we also conduct multifaceted internal environmental audits. In addition to the internal audits set forth under ISO 14001, the major global business sites are audited by the Sustainability Promotion Division and the Internal Audit Office—which are corporate divisions of Hitachi, Ltd.—around every three years. Business units and Group companies have their own environmental audit programs. In the three years from fiscal 2016 to 2018, they conducted environmental audits at 70 of the 78 overseas business sites that have been prioritized for monitoring under our environmental classification criteria. The business sites identified as needing improvements were requested to submit action plans and provided with follow-up and advice until the plans were fully implemented. In these ways we comprehensively implement and enhance our environmental compliance framework.

In fiscal 2018, we received a worldwide total of 16 notices of regulatory violation concerning water quality, air quality, or waste matter and complaints about noise or odor. Of these, 3 were complaints from nearby residents regarding noise or odor, but they were all promptly addressed.

Hitachi will continue to implement enhanced environmental management in order to prevent repeated or new contamination occurrences.

Regulatory Violations and Complaints (Hitachi Group)

	Regulatory violations				Complaints
	Water quality	Air quality	Waste matter	Other (equipment registration, etc.)	
Fiscal 2018 cases	4	2	3	4	3

As part of our measures to address the pollution of soil and groundwater, we are examining the soil and water for any contamination at business sites where hazardous chemical substances had been used. In case contamination is found, we will conduct cleaning and monitoring activities until decontamination has been completed.

Achieving a Low-Carbon Society

Efforts to Achieve a Low-Carbon Society Policy

In line with the scenario in the IPCC's *Fifth Assessment Report* to keep the increase in global temperatures below 2°C, we have established long-term reduction targets for CO_2 emissions of 50% by fiscal 2030 and 80% by fiscal 2050 (compared to fiscal 2010 levels) throughout the value chain.

Approximately 90% of the value-chain emissions of our products and services—from the procurement of raw materials and parts to production, transportation, use, disposal, and recycling—result from the use of our products and services after they were sold. For this reason, to reduce emissions across the value chain and achieve our long-term targets, it is crucial that we reduce CO_2 emissions not just during production but also during the stage of use.

Ratio of CO_2 Emissions at Each Stage of Hitachi Value Chain
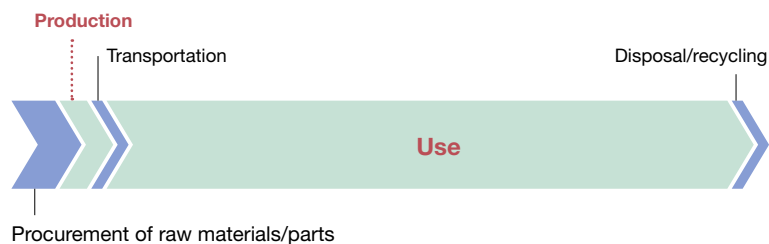
We will not only further enhance the energy efficiency of our products and services to contribute to emission reductions during their use but also seek to globally expand our decarbonization business that utilizes IT and other innovative technologies. We are also actively implementing measures to reduce CO_2 emissions during production; in fiscal 2018, for example, we introduced the Hitachi Internal Carbon Pricing (HICP) framework to raise production efficiency at factories and offices and to promote energy-saving initiatives, and we are taking a variety of steps to accelerate the shift to renewable energy sources.

In response to the growing interest of investors in the financial impact of climate change on corporate operations, in June 2018 we announced our support for the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). We are actively disclosing climate-related information in accordance with these recommendations and conducting dialogue with investors.
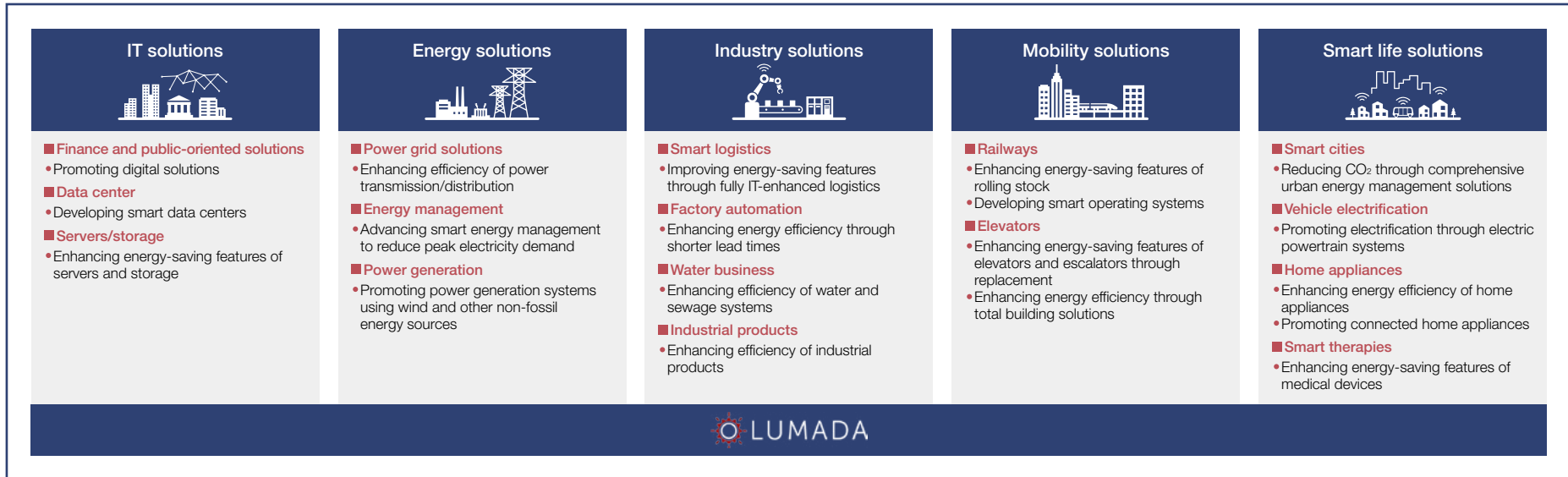
Contributing to a Low-Carbon Society Through the Decarbonization Business Objectives, Activities, and Achievements

Expanding the Decarbonization Business

Hitachi is utilizing Lumada to expand its decarbonization business. Through collaborative creation, we will help the world mitigate and adapt to climate change by supplying solutions in the five business areas of IT, energy, industry, mobility, and smart life—the growth areas identified in the 2021 Mid-term Management Plan.

Decarbonization Business: A Hitachi Focus

IT solutions	Energy solutions	Industry solutions	Mobility solutions	Smart life solutions
■ **Finance and public-oriented solutions** • Promoting digital solutions ■ **Data center** • Developing smart data centers ■ **Servers/storage** • Enhancing energy-saving features of servers and storage	■ **Power grid solutions** • Enhancing efficiency of power transmission/distribution ■ **Energy management** • Advancing smart energy management to reduce peak electricity demand ■ **Power generation** • Promoting power generation systems using wind and other non-fossil energy sources	■ **Smart logistics** • Improving energy-saving features through fully IT-enhanced logistics ■ **Factory automation** • Enhancing energy efficiency through shorter lead times ■ **Water business** • Enhancing efficiency of water and sewage systems ■ **Industrial products** • Enhancing efficiency of industrial products	■ **Railways** • Enhancing energy-saving features of rolling stock • Developing smart operating systems ■ **Elevators** • Enhancing energy-saving features of elevators and escalators through replacement • Enhancing energy efficiency through total building solutions	■ **Smart cities** • Reducing CO_2 through comprehensive urban energy management solutions ■ **Vehicle electrification** • Promoting electrification through electric powertrain systems ■ **Home appliances** • Enhancing energy efficiency of home appliances • Promoting connected home appliances ■ **Smart therapies** • Enhancing energy-saving features of medical devices

○ LUMADA

In the IT sector, Hitachi is contributing to building a low-carbon society by transforming social systems and lifestyles by providing innovative digital solutions.

In the energy sector, we are contributing to CO_2 reduction through the provision of power generation systems using non-fossil energy, such as renewable energy and nuclear power, and creating smart grids that transmit and distribute power efficiently and stably and can optimize local supply and demand.

In the industry sector, along with providing high-efficiency industrial products and improving the overall efficiency of clients' factories, we are using IoT and AI to optimize operations to help our customers reduce their CO_2 emissions.

In the mobility sector, we are promoting energy savings by making trains lighter and introducing operating systems that use cutting-edge IT to improve overall efficiency.

Finally, in the smart life sector, we are providing clean-energy vehicles, smart home appliances, and other highly efficient, energy-saving products and services to make people's lives safer, more convenient, and comfortable by improving connectivity through the use of IT. In addition, we are working with our business partners to build smart cities and smart mobility systems that bring those technologies together, thereby helping to create decarbonized cities that improve the lives of all residents.

▍Calculating Avoided Emissions During the Use of Products and Services

In calculating CO_2 emission reductions from the use of our products and services, such as those cited in our decarbonization business above, we use the following methods depending on the nature of the business, as set out in the Guidelines on Calculating CO_2 Emission Reductions for Hitachi Group Products and Services.[1]

(1) Enhancing energy-saving features

Calculate avoided emissions as reductions in CO_2 emissions by comparing the reductions in CO_2 emissions due to energy-saving improvements in new products and services with earlier ones having equivalent functions (using fiscal 2010 as the base year), considering the production volume of the relevant years.

(2) Switching to other solutions

Calculate avoided emissions as reductions in CO_2 emissions as a result of switching to a new solution offering value equivalent to an earlier solution.

(3) Switching to non-fossil energy sources

Calculate avoided emissions as reductions in CO_2 emissions when embracing energy solutions entailing a switch from grid-supplied electricity (from both fossil and non-fossil fuels, using fiscal 2010 as the base year) to electricity from just non-fossil energy sources, such as renewable energy and nuclear power.

Based on the above approach to reducing CO_2 emissions as avoided emissions, we will further enhance the energy-saving features of our products and services, promote electricity from non-fossil fuels, and provide low-carbon solutions to achieve our long-term targets for further reductions through our decarbonization business.

*1 The Guidelines are based on various standards, including the Guidance on Quantifying Greenhouse Gas Emission Reductions from the Baseline for Electrical and Electronic Products and Systems (IEC TR62726) issued by the International Electrotechnical Commission (IEC), and calculation methods established by the government or industrial associations.
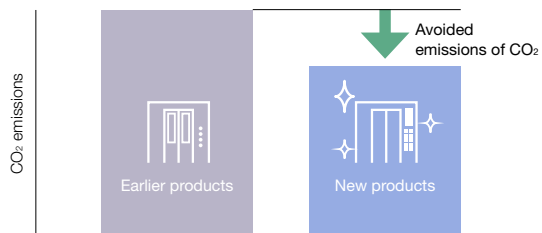
Calculating CO_2 Emission Reductions as Avoided Emissions

Reductions through enhanced energy-saving features of products and services

(1) Enhancing energy-saving features

- Calculate avoided emissions as reductions in CO_2 emissions by comparing the reductions in CO_2 emissions due to energy-saving improvements of new products and services with earlier ones having equivalent functions
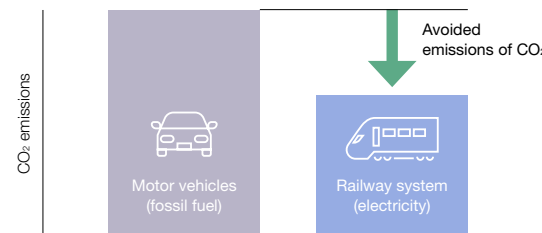
E.g., Elevators

Reductions through solutions

(2) Switching to other solutions

- Calculate avoided emissions as reductions in CO_2 emissions as a result of switching to a new solution offering value equivalent to an earlier solution

E.g., Railway system

(3) Switching to non-fossil energy sources

- Calculate avoided emissions as reductions in CO_2 emissions by comparing with grid-supplied electricity
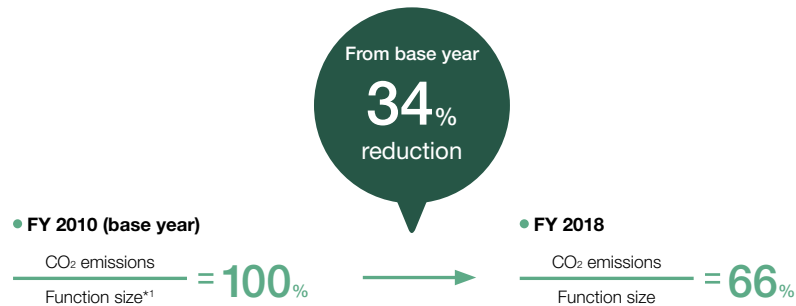
E.g., Wind power, nuclear power plants, etc.
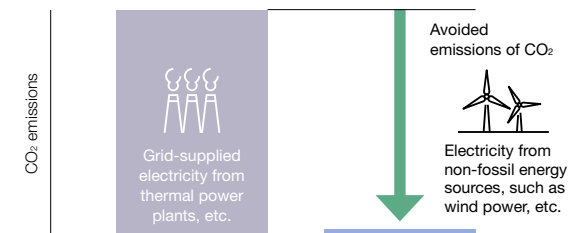
Improved Environmental Performance in Products and Services

Under the Environmental Action Plan for 2018, Hitachi set a target of reducing CO_2 emissions during usage per product and service function. Our goal was to reduce CO_2 emissions by 40% in fiscal 2018—the final year of the action plan—compared to fiscal 2010 for a group of products capable of making a big contribution to resolving environmental issues. Our actual rate of reduction in fiscal 2018 was 34%. We attribute the shortfall to the fact that, among our broad array of products, those featuring high environmental performance failed to reach their sales targets, resulting in a lower reduction rate for the Group as a whole.

Key Indicators

● Reduction in CO_2 Emissions (Hitachi Group)

From base year
34%
reduction

● **FY 2010 (base year)**

$$\frac{CO_2 \text{ emissions}}{\text{Function size}[1]} = 100\%$$

● **FY 2018**

$$\frac{CO_2 \text{ emissions}}{\text{Function size}} = 66\%$$

[1] Major functions of products correlated to CO_2 emissions.

Fiscal 2019 marked the start of the Environmental Action Plan for 2021, established in line with the 2021 Mid-term Management Plan. Going forward, we will continue our efforts to reduce the environmental burden globally by further promoting environmentally conscious design in our products and services and developing and advancing innovative solutions.

Improving Environmental Performance Through Environmentally Conscious Design Assessments

We conduct independently developed Environmentally Conscious Design Assessments for all products and services involving a design process to steadily improve environmental performance throughout the Group. To reduce the environmental burden in multifaceted ways, 30 environment-related areas are assessed for their impact on climate change, resource depletion, and environmental pollution (ecosystem degradation) at each stage of our products' and services' life cycle.

In addition to implementing these assessments, to meet the IEC 62430[1] criteria for environmentally conscious design, we are integrating environmentally conscious design and development of products and services into our existing management system, including by meeting environmental regulatory requirements and ascertaining the environment-related needs of our stakeholders.

For our main, priority products, we conduct not only Environmentally Conscious Design Assessments but also Life Cycle Assessments (LCAs) to quantitatively evaluate their burden on the global environment in such areas as the consumption of mineral resources, fossil fuels, and water resources, as well as their impact on climate change and air pollution. The results of such LCAs are disclosed to our stakeholders and utilized in improving the design of next-generation products.

[1] The standard developed by the International Electrotechnical Commission concerning environmentally conscious design for electrical and electronic products.

📖 Visualizing CO$_2$ Emissions Through Our Carbon Footprint

Participation in the Carbon Footprint Communication Program (Services & Platforms Business Unit, Hitachi, Ltd.)

The carbon footprint of products (CFP) is the CO$_2$ equivalent of the total amount of greenhouse gases (GHGs) emitted over the entire life cycle of a product or service—from procurement of materials through to disposal and recycling. Making the GHG emission amount visible in this way encourages efforts to reduce the amount of carbon emitted by products over their whole life cycle. Countries and regions around the world use the CFP approach.

Hitachi launched CFP assessment in 2009. We participate in the Carbon Footprint Communication Program of the Japan Environmental Management Association for Industry (JEMAI) and are working to expand the number of Approved CFP Products.[1] The program calls for the calculation and disclosure of CO$_2$ emissions throughout the life cycle of approved products. We go one step further, though, disclosing not only the CO$_2$ emitted by our products but also the rate of reduction from previous models in an attempt to provide relevant data that is more specialized, transparent, and neutral in nature.

In fiscal 2018, the midrange storage array Hitachi Virtual Storage Platform G130 (and five other models in the series) was newly verified and approved by the JEMAI CFP Program. Products approved in earlier years are introduced in our catalogs and on both in-house and external websites.

[1] Approved CFP Product: A product that is tested according to the product category rules of the Carbon Footprint Communication Program, is verified as conforming to those rules, and for which an application is made for registration and public announcement.

Products Approved/Certified for a CFP Declaration in Fiscal 2018

Product	Midrange storage array
Model (parentheses indicate name of previous model)	Hitachi Virtual Storage Platform G130 (G100), G150 (G100), G350 (G200), G370 (G400), G700 (G600), G900 (G800)
Rate of reduction in CO$_2$ emission (compared to previous model)	−34% to −57%

Reducing CO₂ Emissions Throughout the Value Chain

"Chatbot Service" to Facilitate Digital Communications (Systems & Services Business, Hitachi, Ltd.)

To support workstyle reforms, Hitachi, Ltd. developed and launched in June 2018 "Chatbot Service," a digital communications tool that can advance operational reforms and create new value. The service uses a chatbot[*1] to improve the efficiency of responses to inquiries for a variety of businesses. In responding to inquiries via chat, it automatically draws on operational scenarios and FAQs created from knowledge accumulated within a company. This can lighten the work burden of help desks and contact centers that handle internal and external inquiries.
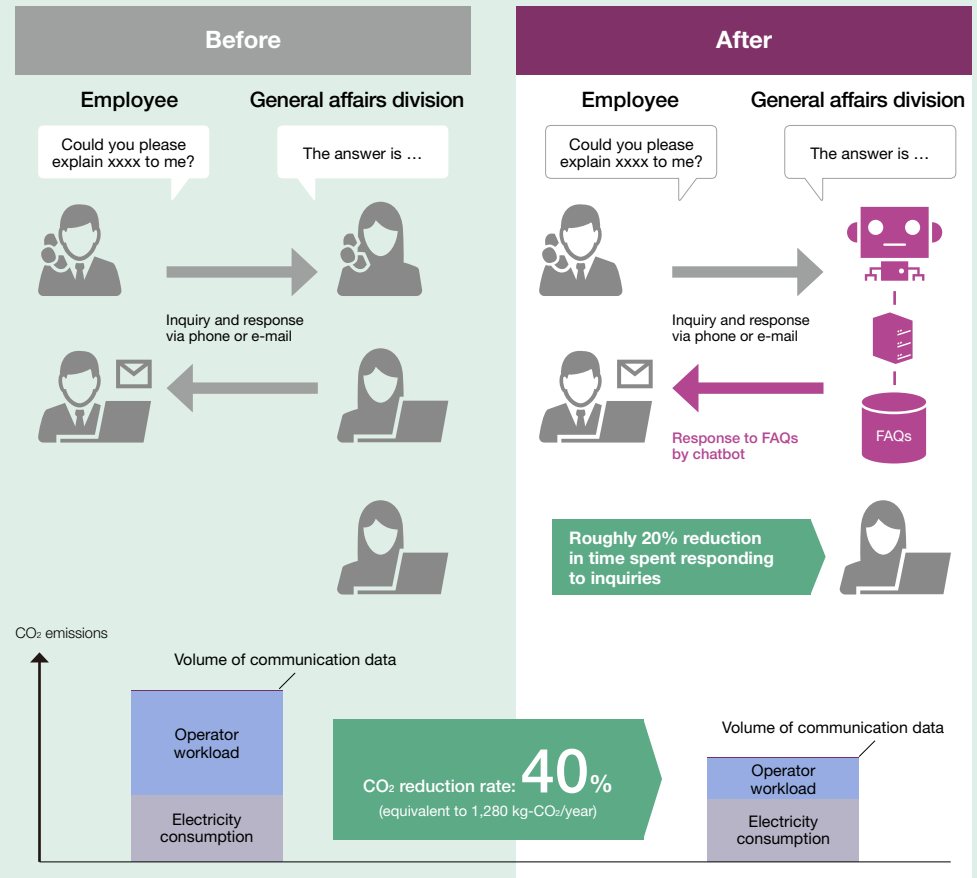
A chatbot service was developed following trials within Hitachi's general affairs division, where it was used alongside human operators to respond to inquiries. This helped reduce the number of inquiries handled by operators in fiscal 2018 by 20% compared to fiscal 2017. The improved efficiency in both workload and energy consumption from equipment use resulted in reducing CO₂ emissions by 40% (equivalent to 1,280 kg-CO₂) from the previous fiscal year, as calculated using the SI-LCA method[*2] developed by Hitachi. This method assesses CO₂ emissions over the entire life cycle of services and solutions, from design and development to use and disposal.

Hitachi will strengthen its chatbot functions and expand the range of digital communications services, developing them into solution cores for Lumada. We will thereby support the creation of new value and reform of workplace operations, while also contributing to reducing the environmental burden, such as through lower CO₂ emissions.

*1 Chatbot: A computer program that uses artificial intelligence to respond automatically to questions using text and audio.
*2 SI-LCA: The System Integration-Life Cycle Assessment method used to calculate CO₂ emissions.

Before and After Introducing the Chatbot Service

UNIPARA-mini Series Uninterruptible Power System
(Hitachi Industrial Products, Ltd.)

Hitachi Industrial Products provides an uninterruptible power system (UPS) to supply electricity in emergency situations, such as a power outage or malfunction, to manufacturing equipment, public facilities, and a range of other fields. In fiscal 2018, a new series of compact systems was launched called the UNIPARA-mini (10 to 50 kVA) providing high energy efficiency.

The UNIPARA-mini is the first small- to medium-capacity model in the industry to fully use a silicon carbide (SiC) element as the main circuit. The series takes advantage of the high-temperature operation features and high-speed switching capabilities of SiC elements to miniaturize the cooling unit and filter, reducing the weight by up to around 40% and the installation area by roughly 60%, compared to the previous model. In addition, thanks to the low level of electricity loss, the series offers an energy efficiency rating of 93.5% at 20 kVA (and maximum efficiency of 94.3%),[1] which is top-class for the industry, helping reduce UPS power consumption. Through these improvements, annual energy reduction has increased to 8,744 kWh and CO_2 reductions have risen to 4.6 t-CO_2,[2] compared to Hitachi's previous Hiverter-MP model.
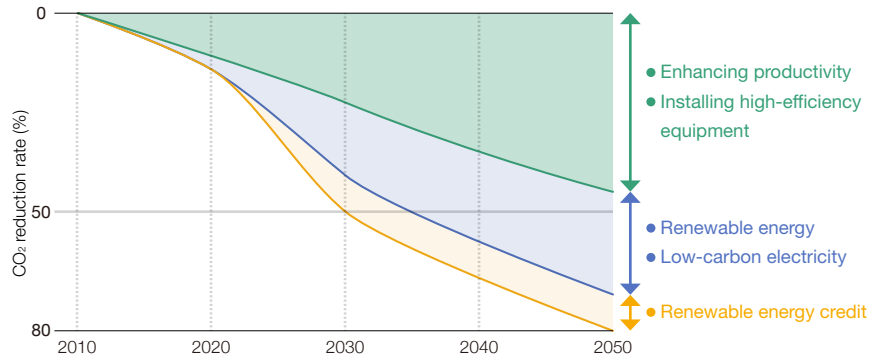
[1] The efficiency rating is based on the 20 kVA UPS (20 kVA/16 kW output) and maximum efficiency on the 20kVA UPS (10 kVA/10 kW output), calculated using the UPS efficiency: measurement method of the JIS C 4411-3 2014 Annex J (standard).

[2] Calculations for both the UNIPARA-mini and the previous model (H-MP) are based on an efficiency rating of 20 kVA, 24-hour continuous operations 365 days a year, an air-conditioning performance coefficient of 2.0, a power factor rating of 0.8, and a load factor of 100%.

UNIPARA-mini (30 kVA).

Contributing to a Low-Carbon Society at Factories and Offices

Reducing CO_2 Emissions at Factories and Offices

In order to achieve our long-term environmental targets, we are aiming to reduce CO_2 emissions from our factories and offices 50% by fiscal 2030 compared to fiscal 2010 levels, and working to promote thoroughgoing energy savings and encourage the deployment of renewable energy.

Specifically, at our factories we are advancing initiatives to improve equipment efficiency by introducing and upgrading to high-efficiency equipment as well as to reduce energy use during production by raising efficiency through IoT-based measures such as installing smart meters. At our offices, we are making efforts to reduce CO_2 emissions by building new high-efficiency facilities and combining and integrating existing facilities.

We are also proceeding with plans to install solar power generation systems at our factories and offices and purchase renewable energy as well as advancing the adoption of renewable energy credits.[1] In fiscal 2018 we introduced a new solar power generation scheme. This is an off-balance-sheet self-consumption scheme in which solar power generation equipment is installed at facilities without becoming an asset of Hitachi itself, and under which electricity is paid for according to the amount generated. We are also advancing our purchasing of renewable energy, with wind, hydroelectric, and geothermal power already accounting for 100% of the electricity purchased at two business sites.

As a result of these initiatives, in fiscal 2018, 0.3% of the energy used across Hitachi was renewable energy generated at our factories and offices. We will continue to deploy renewable energy at our factories and offices, aiming to generate 2% of the total amount of electricity used by the Group by fiscal 2030.

[1] Credits assigned to energy certified as having been produced from renewable sources. Purchasers of such credits can offset their conventional energy use instead of implementing their own reduction measures.

Low-Carbon Roadmap for Factories and Offices

- Enhancing productivity
- Installing high-efficiency equipment

- Renewable energy
- Low-carbon electricity

- Renewable energy credit

(Chart: CO_2 reduction rate (%) vs. years 2010, 2020, 2030, 2040, 2050)

Introducing the Hitachi Internal Carbon Pricing Framework

We started operating the Hitachi Internal Carbon Pricing[1] (HICP) framework in fiscal 2018 in order to promote increased investment in low-carbon equipment at our factories and offices. The HICP framework makes CO_2 reduction due to investment in low-carbon equipment visible, and by adding the effects of such investment to previously calculated evaluations of the effects of energy reduction through investment, it helps to facilitate internal judgments on investment in equipment that take low-carbonization into account.
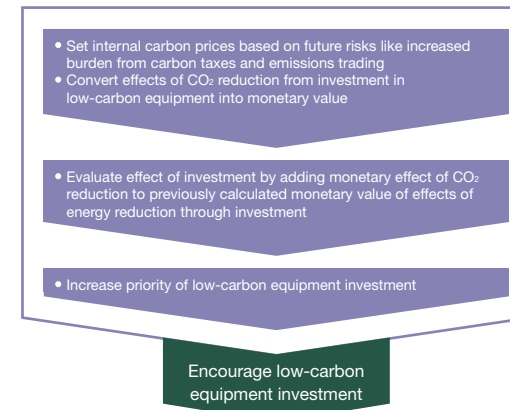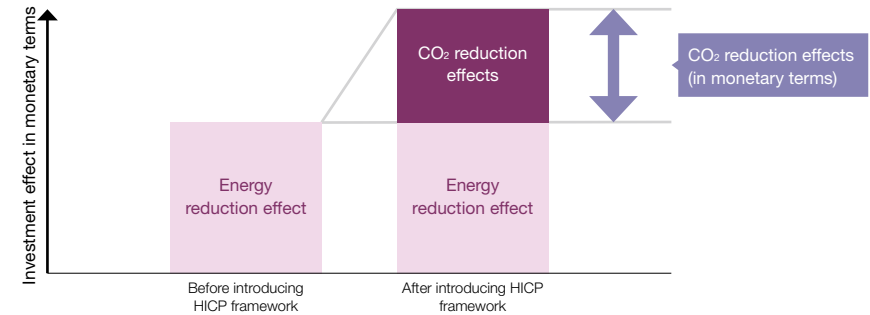
Specifically, with reference to emissions trading and carbon taxes inside and outside Japan, we establish company-internal carbon prices, convert into monetary value the effect of CO_2 reduction due to investment in low-carbon equipment, add this to the value of energy reduction effects, and use the result to evaluate the effect of our investment. By applying incentives like these, we are expanding our investment in low-carbon equipment still further.

As the climate change issue deepens, we anticipate risks like increased burdens from carbon taxes and new emissions trading frameworks to emerge. By incorporating those risks into our equipment investment decisions, we can not only make low-carbon equipment investment a

higher priority, but also minimize the future risks of climate change and make ourselves more resilient. The introduction of the HICP framework is a key part of this process.

[1] Internal carbon pricing: An in-house tool to assess in monetary terms the amount of carbon generated or reduced in order to voluntarily make investment decision and conduct risk management.

Hitachi Internal Carbon Pricing (HICP) Framework

Investment effect in monetary terms

CO_2 reduction effects

CO_2 reduction effects (in monetary terms)

Energy reduction effect

Energy reduction effect

Before introducing HICP framework

After introducing HICP framework

- Set internal carbon prices based on future risks like increased burden from carbon taxes and emissions trading
- Convert effects of CO_2 reduction from investment in low-carbon equipment into monetary value

- Evaluate effect of investment by adding monetary effect of CO_2 reduction to previously calculated monetary value of effects of energy reduction through investment

- Increase priority of low-carbon equipment investment

Encourage low-carbon equipment investment

Renewable energy

High-efficiency equipment

Actions and Achievements

In fiscal 2018, the final fiscal year of the Environmental Action Plan for 2018, the reduction in energy use per unit, one of the environmental goals for factories and offices, was 14% against a target of 17% (from a base year of fiscal 2005). Part of the reason for not hitting the target was an increase in energy use due to the in-house manufacture of products that had been outsourced and a lower efficiency of facility use due to a decrease in sales. There were also some business divisions that could not achieve expected reductions in energy use per unit due to a failure to appropriately respond to a reduction in the fixed power allocation linked to sales. Because Hitachi's operations cover many different areas, reductions in energy use per unit at factories and offices are assessed using an activity amount[*1] at each business site as the denominator.
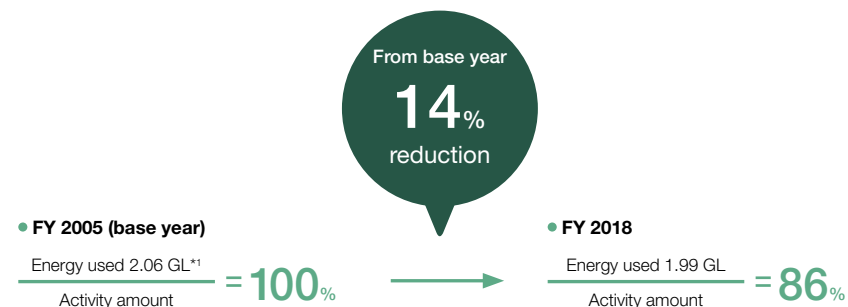
The Environmental Action Plan for 2021 calls for even higher goals around the world, and we will continue to harness our expertise in control and IoT technologies to actively pursue energy conservation measures at our factories and offices.

We report the total amount of CO_2 emissions from our entire Group, including CO_2 emissions from power plants selling electricity. Total CO_2 emissions in fiscal 2018 decreased by approximately 200 kt-CO_2 compared to fiscal 2017. This is due largely to a reduction in the operation rate of power plants, as annual CO_2 emissions by region, excluding that from these power plants, remained almost the same with that in fiscal 2017. In the Americas, a materials company that became a consolidated member of the Hitachi Group in fiscal 2016 accounts for a large portion of CO_2 emissions, and we will look into ways to promote the use of inexpensive renewable energies.

[*1] A value closely related to energy use at each business site (for example, production quantity, output, building floor space, and number of employees).
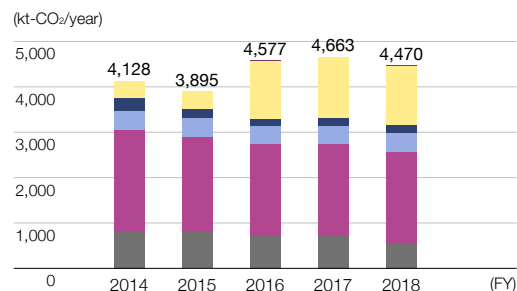
Key Indicators

- Reduction in Energy Use per Unit (Hitachi Group) ⊘

From base year
14% reduction

- **FY 2005 (base year)**

$$\frac{\text{Energy used 2.06 GL}^{*1}}{\text{Activity amount}} = 100\%$$

- **FY 2018**

$$\frac{\text{Energy used 1.99 GL}}{\text{Activity amount}} = 86\%$$

*1 Energy volume used within the organization (Scopes 1 and 2).

- CO_2 Emissions (Hitachi Group's factories, offices, and power plants) ⊘

(kt-CO_2/year)

Breakdown by Region (kt-CO_2/year) ⊘

	2014	2015	2016	2017	2018 (FY)
Europe	8	7	11	16	15
Americas	358	375	1,273[*1]	1,332[*1]	1,307[*1]
China	305	211	166	175	170
Rest of Asia	423	402	384	407	426
Japan	2,217	2,090	2,011	1,994	1,996
Power plants[*2]	817	810	732	739	556
Total	4,128	3,895	4,577	4,663	4,470

*1 Includes 958 kt-CO_2 (fiscal 2016), 1,036 kt-CO_2 (fiscal 2017), and 1,087 kt-CO_2 (fiscal 2018) emitted by a materials company that became a consolidated member of the Hitachi Group in fiscal 2016.
*2 Emissions by power plants selling electricity were retroactively added in fiscal 2017.
Notes:
- The CO_2 electrical power conversion factor uses the 2005 emission coefficient for Japan published by the International Energy Agency (IEA) in the 2010 edition of *CO_2 Emissions from Fuel Combustion*.
- Energy-related CO_2 emissions were 1,869 kt-CO_2 (Scope 1) and 2,601 kt-CO_2 (Scope 2).

Introducing Renewable Energy

We are promoting the use of solar, wind, and other forms of renewable energy at our business sites. During fiscal 2018, Hitachi generated an aggregate of 7,067 MWh of renewable energy for its own use, which is 2.2 times the amount generated in fiscal 2017, corresponding to annual power consumption by 3,000 households. Hitachi Computer Products (America) and Tata Hitachi Construction Machinery (India) purchased 10,425 MWh and 7,500 MWh of renewable energy, respectively, to power their factories during fiscal 2018.

Reducing Transportation Energy Consumption

As part of our efforts to reduce energy output during transportation as well as at our factories and offices, we have established targets for the reduction of transportation energy use per unit for each business unit and Group company. Our business sites are promoting a modal shift to highly efficient transportation methods, improving truck loading ratios and taking other measures to reduce transportation energy consumption, and switching to the use of eco-cars for in-house operation. CO_2 emissions from transportation inside Japan for the Hitachi Group in fiscal 2018 were 102.8 kt-CO_2, ✓ equivalent to automobiles owned by 78,000 households.

We are making efforts to reduce transportation energy by actively promoting the use of railways, particularly for long-distance transportation. In recognition of the efforts, Hitachi, Ltd. and Hitachi-Omron Terminal Solutions have been designated by the Ministry of Land, Infrastructure, Transport, and Tourism as Eco Rail Mark companies[1] as of fiscal 2018. Furthermore, the Eco Rail Mark was conferred on Hitachi, Ltd. and Hitachi Industrial Equipment Systems, recognizing four of their products as Eco Rail certified products.[2] A modal shift from truck to railway

transportation is estimated to reduce CO_2 emissions per unit to one-eleventh, and we will continue to make more use of railways for long-distance transportation.

[1] A mark conferred on companies using railways for more than 15% of its freight land transportation covering 500 km or more; for 15,000 metric tons or more in volume per year; or for more than 15 million ton-kilometers in volume x distance per year.

[2] A mark conferred on products using railways for more than 30% of its freight land transportation covering 500 km or more in terms of volume × distance.

About the Eco Rail Mark

♻ Energy Savings in Eco-Factories & Offices

Achieving Low-Carbon Factories Through Photovoltaic Power Generation (Tata Hitachi Construction Machinery Co. Pvt. Ltd.)

Tata Hitachi Construction Machinery in India, a consolidated subsidiary of Hitachi Construction Machinery, is actively introducing renewable energy at its business sites. India's supply of electricity is chronically unstable, as rapid economic growth is causing demand for electricity to expand by an average of 4.9% a year. In response, the company is proactively introducing large-scale photovoltaic power generation facilities, which helps to not only stabilize the supply of electricity and operations at its plants but also reduce CO_2 emissions and electricity costs.

A large-scale, 5,000 kW photovoltaic power generation facility was established on the grounds of the company's Kharagpur Works in West Bengal State, generating around 7,000 MWh of electricity per year, or around 30% of the plant's energy consumption. This lowered CO_2 emissions by around 3,500 tons in fiscal 2018 and also lowered electricity costs by some 25%.

The company's Dharwad Works in Karnataka State, meanwhile, consumes around 7,500 MWh of solar energy generated offsite to meet approximately 75% of its annual electricity needs. The electricity is supplied through a power purchase agreement under India's open access system.[1]

Solar-generated energy used by the two plants combined annually is 14,500 MWh. This is approximately 50% of the total electricity consumed by Tata Hitachi Construction Machinery and makes the company one of the highest consumers of such energy within the Group.

Solar panels on the grounds of the Kharagpur Works.

[1] Open access system: A system in which access to the power grid managed by power transmitters and distributors is opened to generators of natural energy, allowing the prioritized transmission of natural energy generated offsite to customers (plants) and others.

R&D Facility Featuring High Environmental Performance and Comfort (Central Research Laboratory, Hitachi, Ltd.)

The Central Research Laboratory of Hitachi, Ltd. established a new research hub in April 2019 to accelerate innovation through open, collaborative creation for the realization of the Sustainable Development Goals (SDGs) and Society 5.0.

Called "Kyōsō-no-Mori,"[1] it is a new R&D center for collaborative creation centered on a research building (Kyōsō-tō) offering comfort conducive to the creation of new ideas and solutions, as well as outstanding environmental performance. The building design combines the use of natural light with highly efficient lighting while also optimally controlling the inflow of fresh air and thermal insulation, depending on the season. It also actively incorporates advanced, highly efficient BAT (best available technology) equipment certified by the Ministry of the Environment. The result is a highly hospitable working environment featuring enhanced energy efficiency and incorporating the natural richness of the surrounding forest.

As a result of these efforts, the Kyōsō-tō received the highest S ranking (BEE 3.2)[2] from the Comprehensive Assessment System for Built Environment Efficiency (CASBEE), which evaluates overall environmental performance. The office was also recognized for its energy efficiency, receiving a Building Energy Index (BEI) value of 0.74 under the Building-housing Energy-efficiency Labeling System (BELS) to gain accreditation as a low-carbon facility.

Through open, collaborative creation at Kyōsō-no-Mori, Hitachi will engage in innovation to resolve social issues and raise quality of life for a human-centric sustainable society.

The new Kyōsō-tō research building within the Kyōsō-no-Mori facility.

[1] Kyōsō-no-Mori (forest of collaborative creation) includes a museum (Odaira Kinen-kan) to showcase capabilities, a research building (Kyōsō-tō) to carry out projects, and a production shop (Jinsō-tō) to rapidly develop prototypes.
[2] BEE: Building Environmental Efficiency.

Climate-related Information Disclosure (Based on TCFD Recommendations)

The Task Force on Climate-related Financial Disclosures (TCFD), established by the Financial Stability Board (FSB), published its final report on information disclosure in June 2017 noting that investors needed more clarity in corporate disclosures on climate-related risks and opportunities and governance measures. In June 2018, Hitachi announced its endorsement of the TCFD's recommendations.

The following contains key climate-related information in line with the TCFD's recommendations.
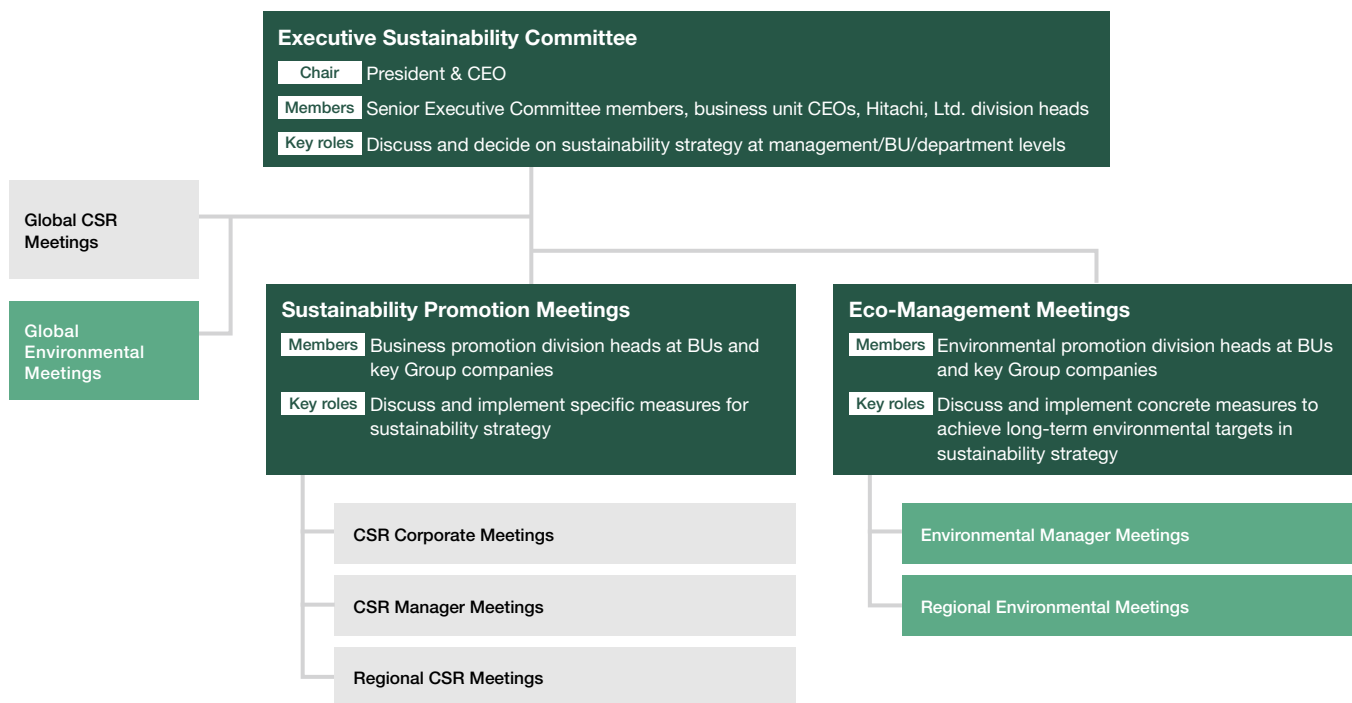
Governance

Hitachi sees climate change and other environmental issues as important management issues. In September 2016, after discussions at the Board of Directors, we established and announced long-term environmental targets called Hitachi Environmental Innovation 2050 containing CO_2 reduction targets for 2030 and 2050.

In April 2017, we established the Executive Sustainability Committee, chaired by the president and CEO and staffed by other top executives, as the highest-ranking body to discuss and reach decisions on the Group's sustainability strategy in accordance with our management and business strategies. Members meet twice a year to discuss material environment-related policies and measures, including those in response to climate change, to share progress reports and achievements, and to set the course for further improvements and new initiatives.

We have adopted a committee system to separate the responsibilities for management oversight from the execution of business operations. Under this system, the Audit Committee of independent directors conducts an audit of sustainability-related operations once a year. Reports on climate-related material issues are made to the committee by Hitachi executive officers.

Hitachi, Ltd. Vice President and Executive Officer Osamu Naito participated in the TCFD Study Group on Implementing TCFD Recommendations for Mobilizing Green Finance Through Proactive Corporate Disclosures, launched by the Ministry of Economy, Trade, and Industry in August 2018, and helped compile its December report. Hitachi also participates in the TCFD Consortium—launched in May 2019 with the participation of 164 companies and other organizations—as a member of its Steering Committee and contributes to discussions on approaches to effective corporate information disclosure and the use of such information by financial institutes and other entities to make appropriate investment decisions.

Sustainability Strategy Promotion Structure

Executive Sustainability Committee
- Chair: President & CEO
- Members: Senior Executive Committee members, business unit CEOs, Hitachi, Ltd. division heads
- Key roles: Discuss and decide on sustainability strategy at management/BU/department levels

Global CSR Meetings

Global Environmental Meetings

Sustainability Promotion Meetings
- Members: Business promotion division heads at BUs and key Group companies
- Key roles: Discuss and implement specific measures for sustainability strategy
  - CSR Corporate Meetings
  - CSR Manager Meetings
  - Regional CSR Meetings

Eco-Management Meetings
- Members: Environmental promotion division heads at BUs and key Group companies
- Key roles: Discuss and implement concrete measures to achieve long-term environmental targets in sustainability strategy
  - Environmental Manager Meetings
  - Regional Environmental Meetings

Sustainability Strategy Promotion Structure

Enhancing Environmental Governance

Audit Committee

Strategy

We established long-term environmental targets called Hitachi Environmental Innovation 2050 in September 2016 based on our Environmental Vision defining the goals of environmental management from a broader perspective. Wishing to fulfill our responsibilities as a global company in achieving a low-carbon society and taking note of the total CO_2 reductions required globally—as projected under the RCP 2.6[*1] and RCP 8.5[*2] scenarios in the *Fifth Assessment Report* of the Intergovernmental Panel on Climate Change (IPCC)—we have set long-term CO_2 reduction targets for our entire value chain of 50% by fiscal 2030 and 80% by fiscal 2050, compared to fiscal 2010.

Our 2021 Mid-term Management Plan announced in May 2019, meanwhile, calls for reducing CO_2 emissions throughout the value chain by more than 20% by fiscal 2021, compared to fiscal 2010.

[*1] A Representative Concentration Pathway (RCP) scenario under which, at the end of the 21st century, the increase in global temperatures from preindustrial levels is kept below 2°C.

[*2] An RCP scenario that assumes that emissions continue to rise, resulting in an approximately 4°C rise in global temperatures compared to preindustrial levels.

▶ Climate Change Mitigation/Adaptation

For a low-carbon society

CO₂
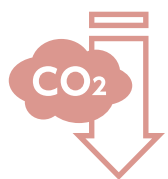
Throughout the value chain
CO_2 emissions

● **FY 2030**
50% reduction

● **FY 2050**
80% reduction

(compared to FY 2010)

📄 The Environmental Vision and Hitachi Environmental Innovation 2050

📄 Efforts to Achieve a Low-Carbon Society

▌ Identification and Assessment of Climate-related Risks and Opportunities

Climate-related Risks

As for climate-related business risks, we have followed the TCFD's classification in considering (1) risks related to the transition to a low-carbon economy in the 2°C scenario and (2) risks related to the physical impacts of climate change in the 4°C scenario, which assumes that efforts to reduce global CO_2 emissions have failed. Risks are categorized into short term, medium term, and long term, defined as follows:

Short term: Over the next three years from fiscal 2019 to 2021 (corresponding to the three-year management period covered by the 2021 Environmental Action Plan, in line with the 2021 Mid-term Management Plan)

Medium term: Through fiscal 2030 (time span of our fiscal 2030 long-term environmental targets)

Long term: Through fiscal 2050 (time span of our fiscal 2050 long-term environmental targets)

(1) Risks related to the transition to a low-carbon economy (applying mostly to the 2°C scenario)			
Category	Major risks	Time span	Main initiatives
Policy and legal	Increased business costs from the introduction of carbon taxes, fuel/energy consumption taxes, emissions trading systems, and other measures	Short to long term	• Avoid or mitigate increases in business costs, such as from carbon taxes, by further enhancing production and transport efficiency and promoting the use of non- or low-carbon energy sources
Technology	Loss of sales opportunities due to delays in technology development for products and services	Medium to long term	• Contribute to reducing CO_2 emissions by developing and marketing innovative products and services that lead to the achievement of long-term environmental targets and expanding the decarbonization business • Promote the development of low-carbon products by implementing Environmentally Conscious Design Assessments when designing products and services
Market and Reputation	Impact on sales due to changes in market values or assessment of our approach to climate issues	Medium to long term	• In the light of rising investor and market interest in climate change and growing expectations of the business sector, clearly identify the reduction of CO_2 emissions in our management and business strategy by incorporating reduction targets for fiscal 2021 in the 2021 Mid-term Management Plan in line with our long-term environmental targets

(2) Risks related to the physical impacts of climate change (4°C scenario)			
Category	Major risks	Time span	Main initiatives
Acute and chronic	Climate-related risks to business continuity, including increased severity of typhoons, floods, and droughts (acute risks) as well as rising sea level and chronic heat waves (chronic risks)	Short to long term	• Take into account the possibility of flood damage when deciding on the location or equipment layout of a new plant. Measures tailored to the water risks of each manufacturing site will be strengthened in the future based on the results of a water risk assessment now being conducted

Initiatives to Build a Water Efficient Society

Climate-related opportunities		
Category	Major opportunities	Main initiatives
Products/services and markets	Increased market value and revenue from expanded sales of products and services with innovative technology that can contribute to the mitigation and adaptation of climate change	• Expand the decarbonization business, develop and market products and services that contribute to a low-carbon society, and promote the development of innovative devices and materials that contribute to reducing the environmental burden
Resilience	Provision of solutions to address climate-related natural disasters	• Provide disaster-mitigation solutions, such as high-performance fire-fighting command systems

Contributing to a Low-Carbon Society Through the Decarbonization Business

Climate-related Opportunities

CO_2 emissions during the use of our products and services by our customers account for approximately 90% of total emissions in our value chain. To achieve the CO_2 reduction targets set forth in our long-term environmental targets and 2021 Medium-term Management Plan, it is therefore essential that we reduce emissions associated with the use of our sold products and services. Developing and providing products and services that emit zero or very little CO_2 during their use can satisfy customer needs and help meet society's demands for reduced emissions. This represents a business opportunity for us in the short, medium, and long term and constitutes a major pillar of the Social Innovation Business that we are promoting as a management strategy.

We believe that our business opportunities will expand over the long term as we leverage the strengths of our operational technology (OT), IT, and products, as well as our expertise in R&D, to create such specific solutions as high-efficiency, energy-saving products; high-efficiency production systems using digital technology; power generation systems using non-fossil energy that do not emit CO_2; environment-friendly mobility; and the building of smart, environmental cities.

Society's need to adapt to climate change also presents business opportunities, as we can tap our technological capabilities to provide solutions in preventing and responding to natural disasters.

▌Responding to Business Risks and Opportunities of Climate Scenarios

To identify specific climate-related risks and opportunities, we examined the business impact of and responses to the 2°C and 4°C scenarios for five businesses that have a relatively high likelihood of being affected by climate change, namely, railway systems, automotive systems, water systems, power generation and power grids, and IT systems. These businesses contribute to improving people's quality of life and enhancing value for our business customers and thus play an important role in our Social Innovation Business. Across all of these businesses, technologies that fuse our strengths in IT and OT, along with energy-related technologies, in particular, are deemed helpful in creating social and environmental value for our customers and society and in adding great value to climate change responses.

Upon examination of the five areas of the Social Innovation Business, we believe that by paying close attention to market trends and developing our business flexibly and strategically, we have high climate resilience in the medium to long term under either the 2°C or 4°C scenario.

Strategies for the 2°C and 4°C Scenarios

Target businesses	Railway systems	Automotive systems	Water systems	Power generation and power grids	IT systems
The business environment under the 2°C scenario	• Demand for railways, which run on electricity and emit less CO_2, will grow as regulations for CO_2 emissions are strengthened globally • Shift to energy-saving railcars will further accelerate, including on existing routes	• Electric vehicles will rapidly spread as tighter laws and regulations on fossil fuels push up fuel prices and discourage ownership of internal combustion engine vehicles. Markets for alternative, non-fossil technologies like hydrogen and biofuel vehicles will expand • The number of countries and regions with near zero sales of internal combustion engine vehicles will increase	• Need for efficient water treatment systems that emit less CO_2 will expand as tighter regulations on CO_2 emissions in each country and region lead to stringent energy regulations on pumps used in water treatment	• Power generation facilities for CO_2-free renewable energy, nuclear power, and other non-fossil sources, as well as high-efficiency power generation facilities that contribute to CO_2 reduction will expand with tighter CO_2 emission regulations in each country and region • Demand will expand for construction of power networks enabling the mass introduction of renewable energy with large output fluctuations • Innovations in energy-saving technologies will further expand demand for energy-saving equipment and services	• Climate change will lead to tighter CO_2 emission regulations in each country and region and changes in the market environment, prompting shifts in customers' business portfolios and IT investments • The development of and demand for energy-saving, high-efficiency IT and data analysis technologies will further expand • Demand will increase for high-efficiency IT systems utilizing CO_2-free non-fossil energy • Investments and loans for low-carbon businesses, green bond issues, and other financial businesses will expand
The business environment under the 4°C scenario	• Transport-related energy regulations will remain weak, discouraging a shift to railways, and conventional modes of transportation like automobiles and motorcycles will persist in some areas • The risk of flood damage to railways and related facilities will increase due to a rise in such natural disasters as typhoons and floods	• Fuel efficiency laws and regulations will remain lax globally, and internal combustion engine vehicles will remain a major mode of transport; the modal shift will be slow, as conventional automobiles and motorcycles will remain predominant • The risk of damage to vehicles will increase due to a rise in such natural disasters as typhoons and floods in various areas	• Demand for clean water will increase due to an increase in abnormal weather phenomena like floods, intense heat, and drought • Rising temperatures will cause a rise in the volume of required cooling water, the growth of bacteria and algae, and a deterioration in water quality due to floods • The risk of damage to water-related equipment from such natural disasters as typhoons and floods will increase	• The cost competitiveness of non-fossil energy will increase and demand for renewable, nuclear, and other non-fossil energy will increase as the expansion of energy consumption pushes up the price of fossil fuels • The risk of damage to power plants and networks will increase due to such natural disasters as typhoons and floods	• Demand for new, high-efficiency technology will expand as damage to information equipment from such natural disasters as typhoons and floods increases and as energy demand for multiplex IT systems in response to BCP increases • Investment in social and public systems to reduce damage from more frequent natural disasters will increase
Non-environmental factors (neither the 2°C nor 4°C scenario) and market conditions	• Economic growth, urbanization, and population growth will drive the railway business globally as an efficient form of public transport for large numbers of passengers, regardless of whether CO_2 regulations are tight; market size in Japan will remain flat, but other markets in Asia and elsewhere will expand • Major railway manufacturers will expand their business to meet global demand	• Economic growth, urbanization, population growth, and infrastructure development like road construction will expand the global market for automobiles as a flexible and personal means of transport • Carmakers will have varying degrees of enthusiasm in promoting electrification • Non-environmental factors like safety, security, and comfort will drive competitiveness, as demand increases for new functions like autonomous driving and advanced safety features, and new mobility services like car sharing grow	• Economic growth, urbanization, and population growth will push up demand for water in some areas • In Japan, local governments and other entities will accelerate wide-area collaboration and privatization in building water systems and improving the efficiency of their management • Replacement demand for aging water treatment facilities will increase in developed countries	• Economic growth, urbanization, and population growth will push up demand for energy, especially electricity, mainly in developing countries • Energy source will be chosen from the perspective of not just CO_2 emissions but also environmental burden, economic performance, safety, and supply stability • Stability and efficiency of the power supply will increase through the use of digital technology • Both companies and individuals will seek to diversify their energy supply and demand	• Further digitization will exponentially increase the volume of data circulated, accumulated, and analyzed • New services and businesses utilizing big data, IoT, AI, and other digital technology will expand rapidly
Responses to future business risks and opportunities	**Response to 2°C or 4°C scenario** • Continue to strengthen the railway business, as global demand for railways will increase under either scenario • Promote R&D of new products and services that improve efficiency of railway services through digital utilization, such as dynamic headway (flexible operation in response to passenger demand), thereby offering customers increased value	**Response to 2°C scenario** • Promote R&D of electrification technology and other alternative technologies to enhance response to new markets, such as for electric vehicles **Response to 4°C scenario** • Promote R&D and product development in existing technologies, including internal combustion engines, to not only improve energy efficiency but increase such non-environmental value as safety, security, and comfort	**Response to 2°C or 4°C scenario** • Strengthen provision of seawater desalination facilities and other water generation systems in response to increased water demand from global economic growth, urbanization, and population growth under either scenario	**Response to 2°C or 4°C scenario** • Continue to enhance response to relevant markets in view of expected higher demand for non-fossil energy under either scenario • Strengthen the grid solution business in response to increased use of renewable energy with large output fluctuations and diversification of energy suppliers • Promote digital service solutions business for diversifying needs of power customers	**Response to 2°C or 4°C scenario** • Continue to develop innovative digital technologies and enhance digital service solutions that generate new value in view of expected growth in society's demand and markets for digital services under either scenario
Financial information (sales volume of each target sector)	Impact on part of 616.5 billion yen in Railway Systems Business Unit sales (FY 2018)	Impact on part of 971 billion yen in automotive system business sales (FY 2018)	Impact on part of 169.1 billion yen in Water & Environment Business Unit sales (FY 2018)	Impact on part of 456.6 billion yen in Energy Sector sales (FY 2018)	Impact on part of 2,121.6 billion yen in IT Sector sales (FY 2018)

We believe that by paying close attention to market trends and developing our business flexibly and strategically, we have high climate resilience in the medium to long term under either the 2°C or 4°C scenario

Note: The above scenario analyses are not future projections but attempts to examine our resilience. How the future unfolds may be quite different from any of these scenarios.

Risk Management

The Hitachi Group is engaged in many different businesses around the world, with each having its own set of risks and opportunities. Climate-related risks are evaluated and monitored for each business unit and Group company as part of a process of assessing risks and opportunities in accordance with the Environmental Action Plan, updated every three years. The results are tabulated by the Sustainability Promotion Division of Hitachi, Ltd., and their importance is checked at Sustainability Promotion Meetings. Those risks and opportunities perceived as being particularly important for the Group as a whole are deliberated by the Executive Sustainability Committee, chaired by the president and CEO of Hitachi, Ltd.

Metrics and Targets

Our environmental activities are managed through the Environmental Action Plan, whose indicators and targets are updated every three years, including those to measure and manage climate-related risks and opportunities.

Under the 2021 Environmental Action Plan (covering fiscal 2019–2021), each business unit and Group company established their respective CO_2 reduction targets in line with the 2021 Mid-term Management Plan, announced in May 2019, calling for a reduction of at least 20% in CO_2 emissions across our value chain by fiscal 2021 compared to fiscal 2010, and environmental activities are being advanced to achieve those targets. To enable the setting of targets and monitoring of progress across our many Group businesses and services throughout the value chain, we use the reduction rate of CO_2 emissions compared to fiscal 2010 as an indicator.

Total greenhouse gas emissions (Scope1, Scope2, and Scope3) across our consolidated value chain are calculated based on GHG Protocol standards and have been published since fiscal 2013. Total CO_2 emissions can fluctuate greatly due to the restructuring of our operations, but given the nature of our business, some 90% of our emissions come from the use of sold products in Scope 3. Among our products and services featuring equivalent value, therefore, we give priority to providing customers and society with those that emit less CO_2. At the same time, we will seek to further reduce CO_2 emissions during production.

Environmental Action Plan for 2021 (Fiscal 2019–2021)

Environmental Load Through the Value Chain

Achieving a Resource Efficient Society

Efforts to Achieve a Resource Efficient Society

According to the *OECD Environmental Outlook to 2050* released by the Organization for Economic Cooperation and Development (OECD), global water demand in 2050 is expected to increase by about 55% compared to 2010, and consumption among manufacturers, in particular, is projected to jump by 400%. In the light of these trends, expanding supplies of water for agricultural use will prove very difficult. As access to freshwater sources becomes increasingly limited, farming and urban areas will face serious threats should groundwater dry up.

The 2017 edition of the UN *World Population Prospects* predicts that the world's population will increase from 7.6 billion in 2017 to 9.8 billion in 2050, resulting in a twofold rise in the consumption of material resources worldwide. The higher volumes of resources that are collected, extracted, used, and eventually emitted as waste are expected to have a severe impact on the economy, society, and the environment.

Hitachi's business operations will respond to these issues by working with our customers and society to help build a society that uses water and other resources efficiently. We have set a fiscal 2050 target of improving the usage efficiency of water and other resources by 50% compared to fiscal 2010 levels. We will create higher economic value using less water and other resources and pursue production activities with a low environmental burden.

Initiatives to Achieve a Resource Efficient Society

Achieving a Resource Efficient Society

Building a society that uses water efficiently

- Enhancing efficiency in the use of water
- Responding to water shortages

Building a society that uses resources efficiently

- Enhancing efficiency in the use of resources
- Reducing and recycling waste materials

Enhancing Efficiency of Water Usage

Initiatives to Build a Water Efficient Society

As a resource, water is unevenly distributed across the world, and wide gaps between supply and demand are sometimes found even in the same region or country. In addressing water problems, therefore, region-specific risk measures must be developed that take the respective water stress[1] levels into account.

We examined water risks at each of our major manufacturing sites around the world, of which there are approximately 200, by using our Environmental Data Collection System (Eco-DS) and such globally recognized tools for water risk assessment as the Aqueduct, developed by the World Resources Institute (WRI); the Water Risk Filter, developed by the World Wildlife Fund for

Water Stress Levels at Hitachi Manufacturing Sites

Baseline Water Stress
- Low risk
- Low to medium risk
- Medium to high risk
- High risk
- Extremely high risk

● Hitachi Group manufacturing sites
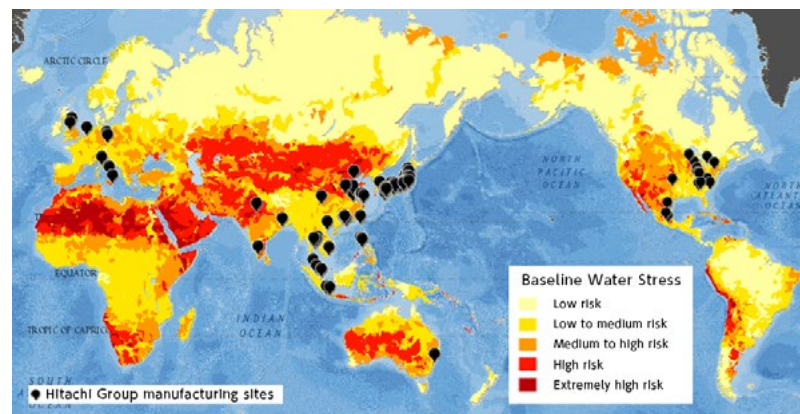
Created based on Aqueduct data.

WRI/Aqueduct

Nature (WWF) and the German development finance institution DEG; and the Flood Hazard Map of the World produced by the European Commission. We analyzed and evaluated water risks for each business unit and Group company, per country and region, and for the entire Group using approximately 50 risk assessment items, including physical risks like water stress, water pollution, and floods; regulatory risks leading to higher water and discharge costs or new taxes; and reputation risks that can negatively affect communication with stakeholders.

The results of the analysis and evaluation will be used to promote Group-wide activities to improve water use efficiency and to strengthen measures specific to the water risks of each manufacturing site.

Hitachi is also addressing water shortages at the society level through its global business operations by creating new sources of water supply. We provide customers in and outside Japan with a wide range of water-related products and services, such as wastewater recycling systems and seawater desalination systems. We also provide machinery, electrical equipment, and services for water infrastructure. To date, we have installed approximately 700 water purification plants and 900 sewage treatment plants in Japan, as well as over 200 plants in some 40 countries and regions around the world. In addition, we offer comprehensive digital solutions for water and sewage treatment operators by drawing on our experience and know-how of Operational Technology (OT), IT, and products that have been cultivated over the course of many years as a comprehensive water service provider.

In fiscal 2019, we will conduct a study on applying big data to forecast water demand in collaboration with the city of Osaka. And we plan to start providing water suppliers with a system capable of instantly and accurately detecting leaks in water pipes in fiscal 2020.

Going forward, we will continue to help build a society that uses water efficiently by supporting the effective maintenance and management of social infrastructure, the optimum utilization of finite resources, and the provision of water environment solutions to enhance people's quality of life.

*1 Water stress occurs when demand for water outpaces availability. The maximum volume of available water supply per capita is used as an index to measure levels of scarcity. The minimum volume of water required for living, agriculture, industry, energy, and the environment is considered to be 1,700 cubic meters per person per year, and regions below this level are said to experience water stress. According to the WRI Aqueduct risk analysis, when the ratio of total annual water withdrawn to average annual water supply within an area is 80% or more, it is defined as extremely high risk.

Collecting and Monitoring Environmental Performance Data to Improve Environmental Practices

Actions and Achievements

In fiscal 2018, we set a target of a 27% reduction (over the base year of fiscal 2005) for water usage per unit at our 208 global manufacturing sites and achieved a 34% reduction. The volume of water used declined by 17.61 million cubic meters, or 32%.

Key Indicators

● Reduction in Water Usage per Unit (Hitachi Group)

From base year
34% reduction

● **FY 2005 (base year)**

$$\frac{\text{Amount used 54.63 million m}^3}{\text{Activity amount}} = 100\%$$

● **FY 2018**

$$\frac{\text{Amount used 37.02 million m}^3}{\text{Activity amount}} = 66\%$$

● Water Usage (Hitachi Group)

(million m³/year)

46.86 43.91 41.34 38.54 37.02

2014 2015 2016 2017 2018 (FY)
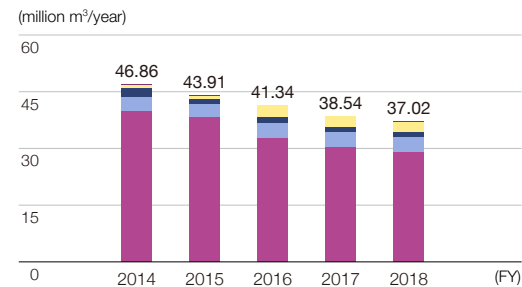
Breakdown by Region (million m³/year)

	2014	2015	2016	2017	(FY) 2018
Europe	0.02	0.01	0.02	0.04	0.04
Americas	0.98	0.89	3.09 *1	2.78 *1	2.71 *1
China	2.32	1.22	1.51	1.51	1.34
Rest of Asia	3.85	3.56	4.00	4.04	3.93
Japan	39.69	38.23	32.72	30.17	29.00
Total	46.86	43.91	41.34	38.54	37.02

*1 Includes water used by a materials company that became a consolidated member of the Hitachi Group in fiscal 2016 (2.12 million m³/year in fiscal 2016, 1.91 million m³/year in fiscal 2017, and 1.92 million m³/year in fiscal 2018).

🖐 Improving Water Use Efficiency

Reducing Water Use with a Closed-Loop Water Cooling System (Waupaca Foundry, Inc.)

Plant 1 of Waupaca Foundry (WFI) in the United States produces more than 3,000 types of castings, mainly automotive parts. At casting plants, water is required in large quantities to cool running machinery and cupola furnaces used in the melting process. After introducing a closed-loop water cooling system, the amount of water intake in 2018 was reduced by approximately 454,000 cubic meters compared to 2015.

Prior to the initiative, cooling water flowed through industrial equipment only once before being discharged. The new closed-loop system reuses non-contact cooling water, leading to significant improvements in water use efficiency. The system is capable of reducing water intake by more than 80% and may, under certain conditions, virtually eliminate any water discharges.

WFI is aiming to reduce water intake by 72% compared to 2010 levels on a company-wide basis by fiscal 2021. It achieved a 52% reduction in 2018.

WFI's closed-loop water cooling system.

Reducing Water Use by Optimizing Ion-Exchange Water Treatment (Hitachi Chemical [Singapore] Pte. Ltd.)

Hitachi Chemical (Singapore) manufactures printed circuit boards for electronic devices and uses large volumes of deionized water to rinse the boards during the production process. Such water is generated by first purifying industrial water through a process of reverse osmosis, separating purified water from concentrate, and then removing unwanted ions from the purified water through ion exchange. The concentrate is not utilized in the manufacture of printed circuit boards but can be used for other cleaning purposes and then discharged.

By optimizing the filters, sealants, and additional tanks used in reverse osmosis, water consumption has been reduced, with the ratio of purified water to concentrate rising from 60% to 85%, leading to greater efficiencies in the generation of deionized water. In fiscal 2018, the company was able to reduce water consumption by 8,045 cubic meters per month.

Ion-Exchange Water Treatment

Raw water (industrial water)

Ion-exchange water treatment system

Improvement in ratio of purified water to concentrate via reverse osmosis from 60% to 85%, reducing monthly water consumption by 8,045 m^3

Purified water — Deionized water — Production of printed circuit boards

Reverse osmosis system — Deionization

Concentrate

Discharge
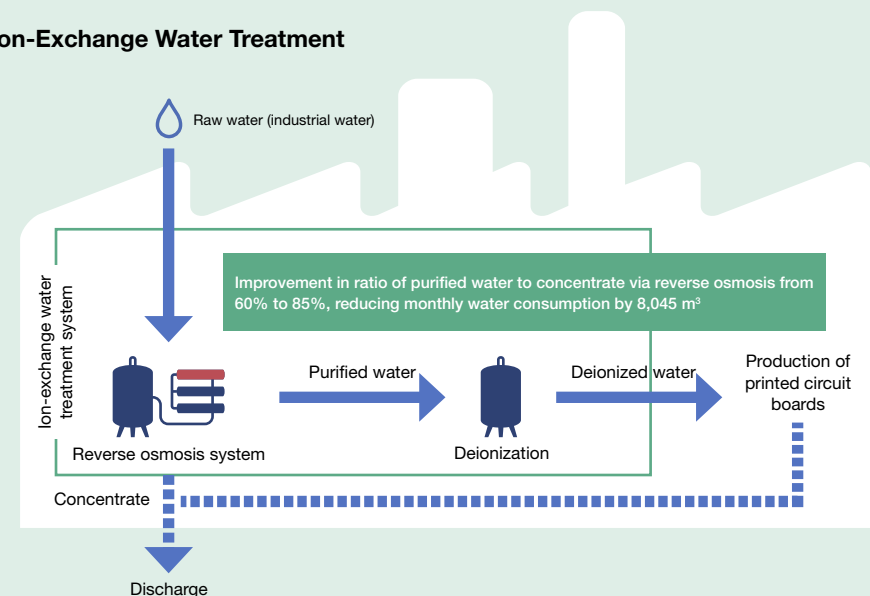
Improving Efficiency in the Use of Resources

Initiatives to Build a Society that Uses Resource Efficiently

To help build a recycling-oriented society, Hitachi is advancing measures at its business sites to improve resource use efficiency by 50% compared to fiscal 2010 by fiscal 2050. We are contributing to the solution of resource-related problems by promoting the utilization of r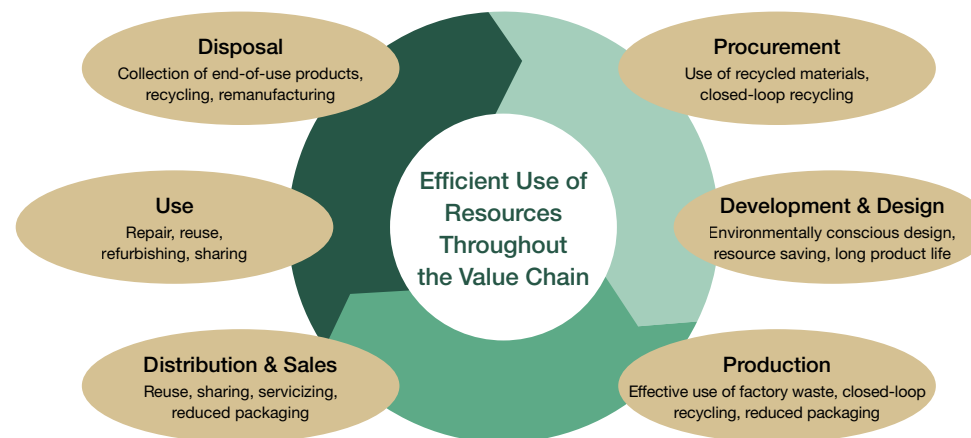ecycled materials, manufacturing that is oriented to resource saving and long product life, reduction and recycling of factory waste, refurbishing*1 and remanufacturing,*2 and recycling of end-of-life products. These are advanced at each stage of the value chain, namely, procurement, development and design, production, distribution and sales, use, and disposal. Our Environmental Action Plan contains detailed three-year activity targets for improvements in the waste and valuables generation per unit and the achievement of zero waste to landfill. We have established indicators to measure our progress and are promoting activities throughout the Group to achieve these goals. In recent years, we have also been addressing the global problem of plastic waste, such as by finding efficient uses for the plastic waste generated in our business activities and by replacing one-way (disposable) plastic containers and packaging with paper. We will further strengthen our efforts to reduce our plastic waste.

*1 Refurbishing: Servicing end-of-use products to a condition conforming to new-product standards.
*2 Remanufacturing: Restoring end-of-use products through disassembly, washing, component replacement, and other work to a condition equivalent to new products.

Efficient Use of Resources Throughout the Value Chain

Disposal
Collection of end-of-use products, recycling, remanufacturing

Use
Repair, reuse, refurbishing, sharing

Distribution & Sales
Reuse, sharing, servicizing, reduced packaging

Efficient Use of Resources Throughout the Value Chain

Procurement
Use of recycled materials, closed-loop recycling

Development & Design
Environmentally conscious design, resource saving, long product life

Production
Effective use of factory waste, closed-loop recycling, reduced packaging

Promoting Product Collection and Recycling and the Efficient Use of Resources

In response to the 2001 Home Appliance Recycling Law, Hitachi is taking part in a cooperative effort among five companies*1 in the same industry to recycle air conditioners, television sets, refrigerators, and washing machines at 19 recycling plants nationwide. In fiscal 2018, we recycled around 72 kt of the roughly 81 kt of end-of-life home appliances we collected.

Hitachi has built its own recycling network providing services near our customers to collect and recycle such end-of-life products as supercomputers, mainframes, and other computing machines; communication equipment like network devices and telephone switchboards; and information equipment like ATMs. In fiscal 2018, efforts by Hitachi Industrial Equipment Nakajo Engineering and Tokyo Eco Recycle Co., Ltd. to recycle the base and rare earth metals of information

and communication equipment in Japan received the METI Minister's Prize at the 3Rs (Reduce, Reuse, and Recycle) Promotion Merit Awards, sponsored by the 3Rs Promotion Council.

We are also promoting the refurbishing and remanufacturing of collected used products. In the United States, when a customer replaces a large-capacity storage unit with a new model, parts of the end-of-use device are cleaned, inspected, and refurbished as warranty-backed Hitachi components, used in servicing older units. After collecting malfunctioning electric components from automobile dealers and repair shops, we disassemble, check, clean and restore, reassemble, and inspect those components, remanufacturing and marketing them as equipment featuring the same performance as new products. Used construction machinery like large hydraulic excavators and dump trucks are similarly remanufactured so they function like new and offered as high-function, reasonably priced products. We also collect end-of-use medical and industrial equipment (such as pumps, motors, distribution boards, transformers, refrigeration equipment, and air conditioners) and promote activities to reuse them as resources.

In an effort to use resources more efficiently, we also promote the use of recycled materials. In fiscal 2018, recycled materials accounted for 2,415 kt (55%) of our total raw materials input of 4,403 kt. The share of recycled plastic used for the plastic parts of Hitachi appliances was 7%.

In addition to purchasing materials from manufacturers of recycled plastic, Hitachi Global Life Solutions assigns a group company to process the plastic materials of end-of-life home appliances and plastic containers, reusing them as parts for washing machines and refrigerators and as packaging materials for ceiling lights. As a result of these efforts, it manufactured or used 926 tons of recycled materials in fiscal 2018.

*1 Hitachi Global Life Solutions; Sharp Corp.; Sony Corp.; Fujitsu General Ltd.; and Mitsubishi Electric Corp.

Flow Chart for the Recycling of Plastic in Home Appliances
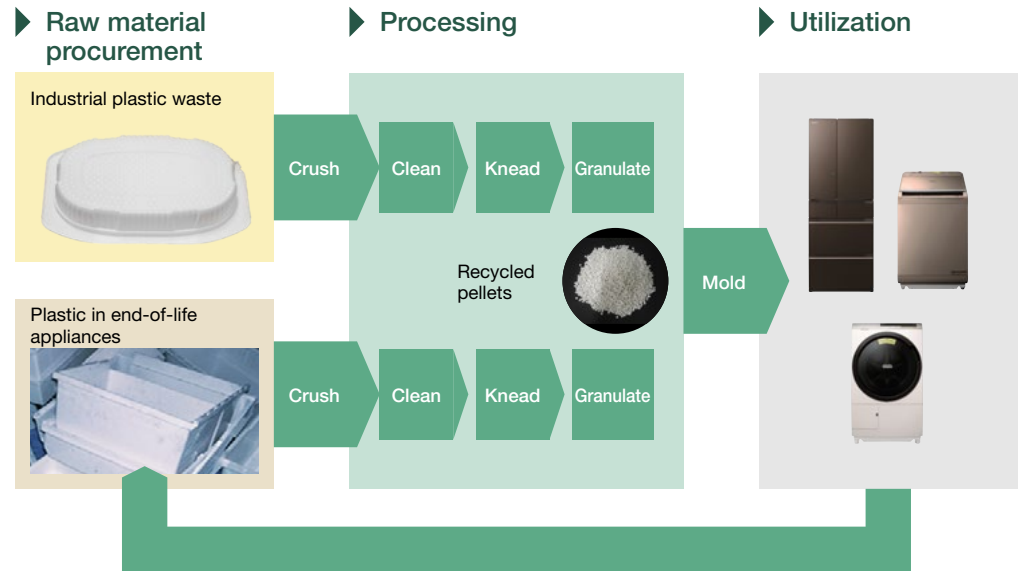
Using IT to Manage Waste

Hitachi has developed and operates a waste management system aimed at efficient management and reduced compliance risk.

The generation and disposal of waste produced not only at our factories and offices but also during our contract operations are visualized and centrally managed. The information is added to our environmental performance data and linked to the Environmental Data Collection System (Eco-DS). In fiscal 2018, entries were made to the system regarding waste produced at approximately 1,500 business and construction work sites in Japan and at approximately 600 business sites in 41 countries. For waste generated at our 200 major business sites, information is sorted into three categories—hazardous, solid, and domestic—and data on disposal method, disposal contractors, recycling rates, and export status is collected and analyzed. This information is utilized to strengthen and promote measures aimed at reducing waste volume and improving

recycling rates. In Japan, we established a target of raising the e-manifest[1] system registration rate to at least 90% by fiscal 2015. While this was achieved in fiscal 2014, we still continued with our efforts in fiscal 2018.

[1] The e-manifest is a document that waste generators must issue when commissioning a disposal company to handle waste disposal.

Waste Management System

Office

Intranet | Internet

E-manifest

Data link

JWnet[1] e-manifest

Paper manifest
Valuable materials
General waste
Disposal contractor
Contract details

Hitachi Group Environmental Data Collection System (Eco-DS)

Internet

Industrial waste disposal company
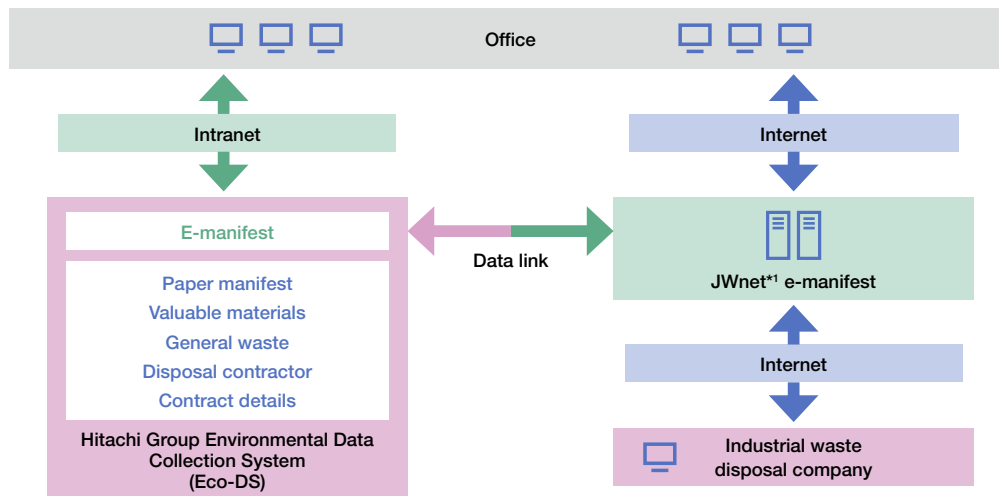
[1] JWnet: The Japan Waste Network is an electronic manifest system operated by the Japan Industrial Waste Information Center under the auspices of Japan's Ministry of the Environment.

Actions and Achievements

For fiscal 2018, we set a target of a 14% reduction (from a base year of fiscal 2005) for waste and valuables generated per unit, bettering this by achieving a 16% reduction.

We endeavored to reduce waste through closed-loop recycling, whereby the byproducts and scrap from the production process are reused as resources by other business sites, and through the repeated use of packing and cushioning materials during transport. Under the Zero Emission

initiative,[1] which seeks to minimize landfill disposal, 95 business sites achieved their zero waste emissions goal[2] as of fiscal 2018.

[1] Zero emissions: The principles and methods advanced by United Nations University in 1994 aimed at eliminating waste from human activity as much as possible while maximizing the use of resources and achieving sustainable economic and manufacturing activities.
[2] Defined as a final disposal rate (landfill disposal/waste and valuables) of less than 0.5% in any given fiscal year.

Zero Emission Sites

Key Indicators

● Reduction in Waste and Valuables Generation per Unit (Hitachi Group)

From base year
16% reduction

● **FY 2005 (base year)**

$$\frac{\text{Amount generated 1,510 kt}}{\text{Activity amount}} = 100\%$$

● **FY 2018**

$$\frac{\text{Amount generated 1,384 kt}}{\text{Activity amount}} = 84\%$$
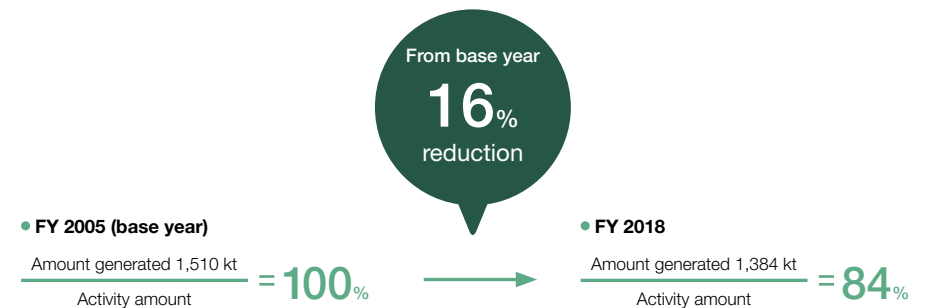
● Waste and Valuables Generation (Hitachi Group)

(kt/year)

1,500
1,000
500
0

692 (2014) — 618 (2015) — 1,336 (2016) — 1,356 (2017) — 1,384 (2018) (FY)
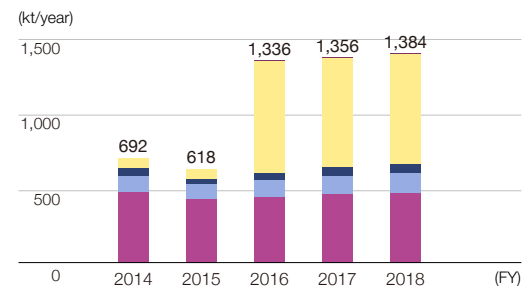
Breakdown by Region (kt/year)

	2014	2015	2016	2017	(FY) 2018
Europe	2	1	2	4	4
Americas	67	63	744 [1]	725 [1]	734 [1]
China	54	36	48	55	55
Rest of Asia	106	98	107	117	130
Japan	463	420	435	455	461
Total	692	618	1,336	1,356	1,384

[1] Includes 675 kt (fiscal 2016), 675 kt (fiscal 2017), and 689 kt (fiscal 2018) of a materials company that became a consolidated member of the Hitachi Group in fiscal 2016.

Efficient Use of Resources

Recycling of Amorphous Metal Materials
(Hitachi Metals, Ltd., Hitachi Industrial Equipment Systems Co., Ltd.)

Hitachi Industrial Equipment Systems Nakajo Division manufactures amorphous transformers using amorphous metals to improve the electrical properties of the iron core, thereby greatly reducing energy loss.

Amorphous metals are high functional materials manufactured by Hitachi Metals. Unlike normal metals and alloys, they inhibit power conversion loss because of their random atomic structure, and the no-load loss of the core is approximately one-fifth of conventional materials, such as silicon steel plates. Transformers are used over long hours, for many years, and in large quantities, so the adoption of the amorphous core, which inhibits per-transformer electrical conversion loss, can significantly reduce energy consumption.

To promote the efficient use of resources, the amorphous metal scrap generated in the transformer manufacturing process at Hitachi Industrial Equipment Systems Nakajo Division and the amorphous cores taken from end-of-life transformers are collected and recycled by Hitachi Metals Metglas Yasugi Works. In fiscal 2018, about 120 tons of amorphous metal waste were used to manufacture amorphous metal materials.

Recycling Scheme for Amorphous Metal Materials
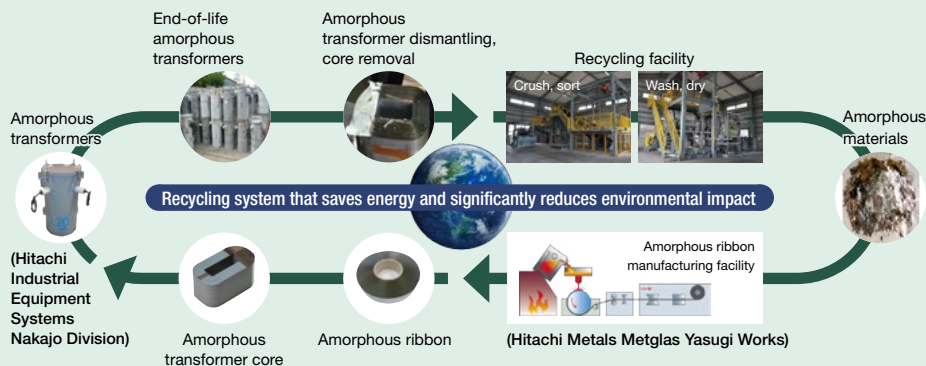
Reducing Landfill Waste and Increasing Recycling Through Sand Recycling
(Waupaca Foundry, Inc.)

Waupaca Foundry (WFI) of the United States produces castings that are mainly used as automotive parts. Large volumes of spent green sand[1] is generated in the casting process. In order to reduce landfill waste disposal and increase recycling, the company installed a sand recycling system at Plant 5 in September 2016. In 2018, about 75% of some 26,000 tons of spent green sand generated was recaptured and reused. Moving forward, WFI plans to reuse 55,000 tons of sand annually.

The sand that can no longer be reused finds new life in applications in construction and agriculture and as fill material. WFI recycles some 460,000 tons of sand in such ways on a company-wide basis. Aiming to achieve zero landfill disposal, it has set a goal of reducing spent green sand by 30% in 2020 compared to 2010 levels. The company regards these initiatives as valuable opportunities to partner with the local community.

[1] Spent green sand: Sand used to make molds for casting.

Sand recycling system.

Achieving a Harmonized Society with Nature

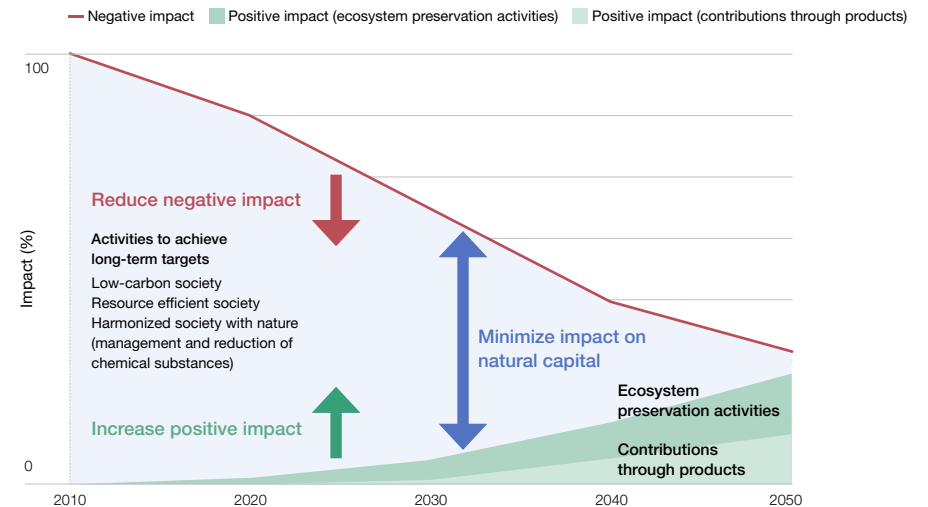## Efforts to Achieve a Harmonized Society with Nature

To adequately preserve the ecosystem and achieve a harmonized society with nature so that we may continue to enjoy nature's benefits, we have established targets to minimize our impact on natural capital as part of our long-term environmental targets. Specifically, we classify our activities into those that have either a negative or positive impact on natural capital with the aim of minimizing any negative impact by 2050.

We perceive our negative impact activities as including the emission of greenhouse gases and chemical substances into the atmosphere and the generation of waste materials. We make a positive impact, meanwhile, by providing products and services that contribute to ecosystem preservation and by undertaking social contribution activities to protect the environment through the preservation of biodiversity and ecosystems.

By classifying Hitachi's activities across the value chain into those with positive and negative impact and then quantifying such impact, we are advancing initiatives to reduce our negative impact and maximize our positive impact.

A Timetable for Minimizing Impact

Legend: Negative impact — Positive impact (ecosystem preservation activities) — Positive impact (contributions through products)

Reduce negative impact

Activities to achieve long-term targets
Low-carbon society
Resource efficient society
Harmonized society with nature (management and reduction of chemical substances)

Minimize impact on natural capital

Increase positive impact

Ecosystem preservation activities

Contributions through products

Initiatives to Minimize Impact on Natural Capital

Hitachi has identified and quantified the negative impact our business activities have on natural capital with the aim of reducing such impact. According to our estimates, approximately 40% of our negative impact in fiscal 2018 was related to climate change, and 20%, respectively, to waste materials, resource consumption, and urban air pollution. These results suggest that we need to further reduce our environmental load to minimize our impact on natural capital, such as by increasing the energy efficiency of our products and services, advancing factory efficiency, using resources more effectively, and properly managing chemical substances. Going forward, we will step up our environmental efforts to achieve our long-term environmental targets for a low-carbon society, a resource efficient society, and a harmonized society with nature.

Managing and Reducing Chemical Substances

Managing Chemical Substances

As for our positive impact activities, we have been advancing social contribution activities like forest conservation and business activities that directly contribute to ecosystem preservation, such as building water treatment plants. We are also looking to quantify the impact of these activities. We began such an effort in fiscal 2018 by estimating the benefits gained through forest conservation, which is a major positive impact activity for the Group. We focused on 24 business sites for which forest areas targeted for conservation activities could be ascertained. Using evaluation methods commonly used in forestry public works, we calculated the benefits in terms of flood prevention, water impoundment, water purification, soil loss prevention, and carbon fixation. We will share the results within the Group and continue to promote our activities going forward.
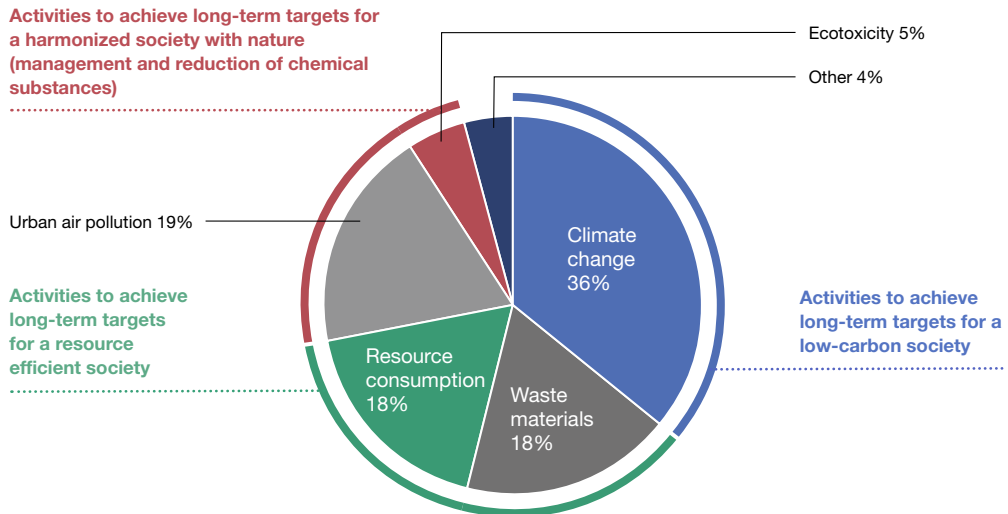
The results of Hitachi's identification of the negative impact on natural capital caused by its business activities in fiscal 2018 showed that around 20% of that impact was urban air pollution. We believe that control and reduction of volatile organic compounds (VOCs), one of the causes of urban air pollution, and other chemical substances are important to minimizing our impact on natural capital.

In fiscal 2005, Hitachi formulated the Regulations for Environmental CSR-Compliant Monozukuri to manage chemical substances at all stages of its operations—from design and development, procurement, and production to quality assurance and shipping. Chemical substances in our products are divided into two categories, prohibited substances and controlled substances, for separate management to respond to legal and regulatory frameworks at shipping destinations. With regard to chemical substances used in our business operations, we reduce risk by assigning three ranks to the use of such substances: prohibited, controlled, and reduced, as well as by educating chemical substance handlers and managers on laws and regulations and on proper risk assessment.

Negative Impact on Natural Capital (FY 2018)

Activities to achieve long-term targets for a harmonized society with nature (management and reduction of chemical substances)

Ecotoxicity 5%

Other 4%

Urban air pollution 19%

Activities to achieve long-term targets for a resource efficient society

Climate change 36%

Resource consumption 18%

Waste materials 18%

Activities to achieve long-term targets for a low-carbon society

Note: Calculated using version 2 of the Life-cycle Impact Assessment Method based on Endpoint Modeling (LIME2).

Scope of Negative Impact Calculations

Managing Chemical Substances in Our Products

Hitachi designates the chemical substances in our products requiring management as Voluntarily Controlled Chemical Substances. Within this category, we distinguish between prohibited substances (Level 1), which are basically illegal to use inside and outside Japan in products (including packaging) but which might be found in products from suppliers, and controlled substances (Level 2), which includes substances we are required to track and manage the use of and substances requiring attention to recycling or appropriate disposal methods. The list of managed substances and levels is regularly revised based on updates to Europe's REACH[1] and other regulations.

Because four types of phthalic esters were to be added to the list of restricted substances in Europe's RoHS directive[2] in July 2019, we designated them as prohibited substances in a January

2019 revision. As a result, the list of Voluntarily Controlled Chemical Substances now contains 22 prohibited substances and 22 controlled substances.

*1 REACH: The European Union regulation on Registration, Evaluation, Authorization, and Restriction of Chemicals.
*2 Europe's RoHS directive: The European Union's Restriction of the Use of the Certain Hazardous Substances in Electrical and Electronic Equipment, such as computers, communication devices, and home appliances.

🖱 Hitachi Group's Voluntarily Controlled Chemical Substances

Working with the Supply Chain to Manage Chemical Substances

To ensure that we understand what chemical substances are used in our products—from design and development, procurement, and production to quality assurance and shipping—and to respond to legal and regulatory frameworks at shipping destinations, since fiscal 2005 we have worked with suppliers to gather and manage information on chemical substances in materials, components, and products via the Integrated Management System for Chemical Substances Contained in Products. As of March 31, 2019, chemical substance information for more than 1.54 million parts and products was registered under this integrated management system.

The Integrated Management System for Chemical Substances Contained in Products was upgraded in April 2017 to incorporate the chemSHERPA format.*1 Accordingly, between July 2018 and March 2019, we held 13 briefings on chemSHERPA tools and our system for suppliers using the system at Healthcare Kashiwa, Omika Works, Mito Works, and Hitachi IE Systems. The briefings were attended by approximately 1,500 persons and helped to deepen understanding of these tools.

*1 chemSHERPA: A standard developed by the Japanese Ministry of Economy, Trade, and Industry to facilitate the management of chemical substances in products by creating a shared transmission scheme throughout the supply chain.

Integrated Management System for Chemical Substances Contained in Products
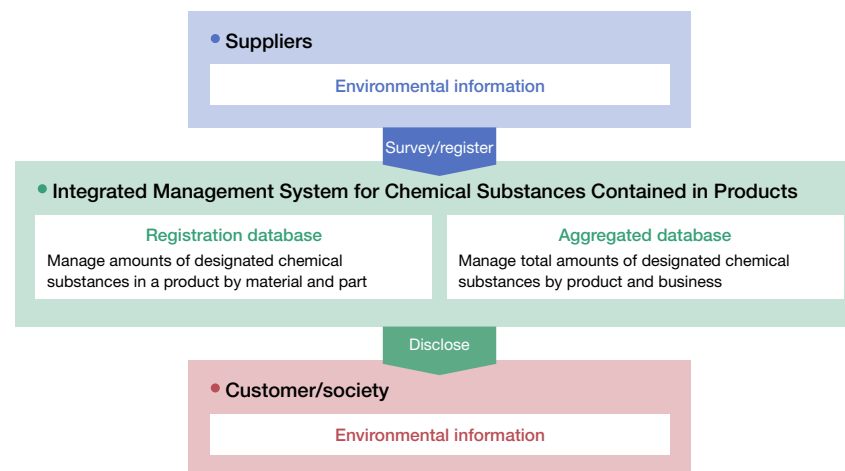
Managing Chemical Substances in Our Business Operations

Since fiscal 2016, we have been cutting emissions of chemical substances from our factories and other sites through stricter management, such as by expanding the number and scope of controlled chemical substances. Initiatives in fiscal 2018 to reduce emissions of chemical substances included switching from paints containing volatile organic compounds (VOCs) to water-soluble and powder paints as well as expanding their use and altering the painting and washing processes. These efforts enabled us to successfully achieve our reduction targets. Information on our efforts has been translated into English and Chinese and shared globally with Hitachi Group members. We also follow legally prescribed procedures in measuring and managing emissions of sulfur oxides (SOx) and nitrogen oxides (NOx),*1 whose measurement is required under the laws and regulations of our business site locations, and are advancing efforts to further restrict emissions.

We comply with Japan's Pollutant Release and Transfer Register (PRTR) Law*2 through Group-wide monitoring of chemical substances released into the atmosphere or into public
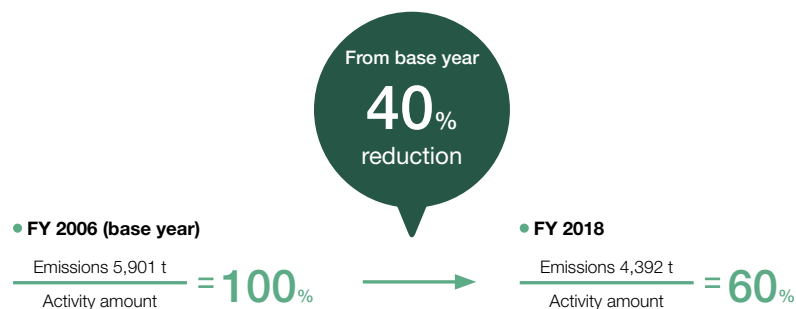
waters, removed outside our plants as waste, or discharged into sewage systems, reporting the results to local governments for each office or plant. Although some substances are exempt from reporting due to their small quantities, our policy is to keep data on the handling, emission, and transfer of all PRTR substances totaling 10 kilograms or more per year, recognizing the need to control these substances as well.

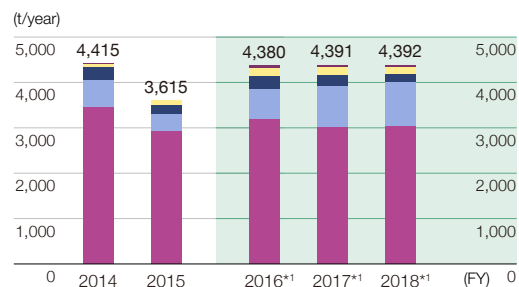*1 Emissions of SOx and NOx: Calculated by multiplying their concentration and exhaust volume.
*2 PRTR Law: Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof.

Key Indicators

● Reduction in Atmospheric Emissions of Chemical Substances per Unit (Hitachi Group)

From base year
40%
reduction

● **FY 2006 (base year)**

$$\frac{\text{Emissions 5,901 t}}{\text{Activity amount}} = 100\%$$

● **FY 2018**

$$\frac{\text{Emissions 4,392 t}}{\text{Activity amount}} = 60\%$$

● Reducing Atmospheric Emissions of Chemical Substances (Hitachi Group)

(t/year)

2014	2015	2016*1	2017*1	2018*1
4,415	3,615	4,380	4,391	4,392

Breakdown by Region (t/year)

	2014	2015	2016*1	2017*1	2018*1
					(FY)
■ Europe	12	9	57	58	64
■ Americas	66	113	187	178	142
■ China	281	199	291	246	184
■ Rest of Asia	604	373	662	899	966
■ Japan	3,452	2,921	3,183	3,010	3,036
Total	4,415	3,615	4,380	4,391	4,392

*1 Since fiscal 2016, the scope of controlled chemical substances has been expanded from 41 to 50 substances.
Note: Atmospheric emissions of VOCs and other chemical substances are calculated from the content rate included in the ingredients.

The CEGNET Chemical Substance Management System

To ensure the proper management of chemical substances used in its business operations, Hitachi has operated a database for chemical substance management called CEGNET since 1998 to keep track of the latest laws and regulations and the company's own voluntary regulations.

CEGNET also collects and aggregates data on the amount of chemical substances handled, emitted, and transferred in our operations, helping to reduce the volume of chemicals that we handle.

Chemical Substance Management System (CEGNET)

Regulatory/voluntary control information

Chemical data

New chemical risk searches

Network

Registration of amounts handled/ data collection

Hitachi Group business sites
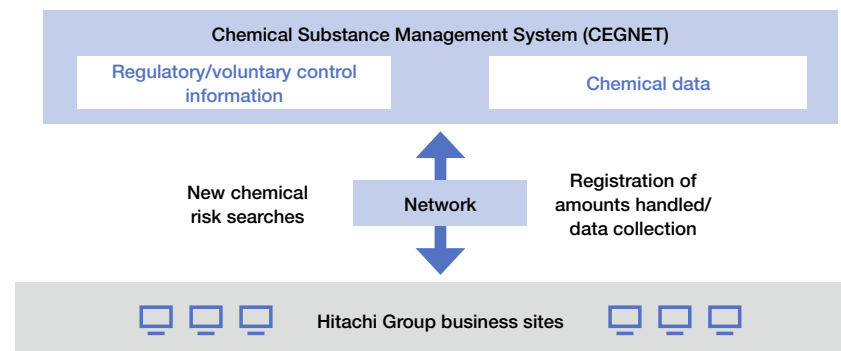
Reducing Chemical Substances in Our Business Activities

Reducing VOC Usage and Emissions (Hitachi Rail SpA)

Hitachi Rail manufactures technologically advanced rolling stock, ranging from high speed trains to driverless metros. It works metal sub-components, welds car bodies, applies paints, assembles equipment and interiors, and conducts electrical and functional tests.

At the Pistoia and Reggio Calabria Plants in Italy, painting products were switched many years ago to a high-solid paint that emits fewer volatile organic compounds (VOCs), thereby minimizing VOC usage in the production process.

Over the past year, the solvents used for the pre-painting degreasing treatment of metal surfaces were substituted by a new ecological product that is completely VOC-free. VOC usage was further significantly reduced through the adoption of a low-VOC cleaning solvent and solvent-reutilizing equipment for the cleaning of spray guns.

These new technologies have helped reduce total VOC usage in 2018 by about 16 tons compared to 2017, corresponding to a reduction of about 40 % in the total VOCs used at the two plants.

Pre-painting degreasing treatment using a VOC-free solvent.

Reducing VOC Emissions (Hitachi Chemical Group)

The Hitachi Chemical Group produces a diverse array of functional materials and advanced components and systems. This requires the use of around 130,000 tons of chemical substances every year as raw materials for its products and as additives in the production processes. The chemicals used include around 60,000 tons of volatile organic compounds (VOCs) that are the cause of photochemical oxidants and suspended particulate matter.

Hitachi Chemical (Nantong) mainly produces functional resin and chemical raw materials. Nearly 100% of the VOCs volatilized during the production process are detoxified by a combustion deodorizer and then discharged into the atmosphere. In fiscal 2018, its entire plant engaged in Leak Detection and Repair (LDAR) activities to further reduce the emission of VOCs. A simplified VOC measurement device was used to identify leaks from valves and piping joints, and appropriate repairs were made, leading to the detection and suppression of minute VOC emissions that had been overlooked in the past. As a result, atmospheric emissions were reduced by 1.3 tons compared to the previous fiscal year.

Moving forward, efforts will actively be made by the Group as a whole to further limit emissions.

LDAR Activities

Detecting a VOC leak.

Making repairs.

Preserving Ecosystems

Initiatives to Preserve Ecosystems

At Hitachi, we seek to reduce the burden (negative impact) on natural capital caused by business activities and to promote the positive impact, such as by undertaking social contribution activities to protect nature and providing products and services that help preserve the ecosystem, thereby minimizing our impact on natural capital by fiscal 2050 and realizing a harmonized society with nature.

In fiscal 2016 Hitachi created an Ecosystem Preservation Activities Menu citing the specific activities to be undertaken to promote the preservation of the ecosystem, including not only CO_2 emission reductions, resource recycling, and chemical substances management but also activities that are difficult to quantify but are nonetheless important, such as the protection of rare species and efforts to make biodiversity a criterion when making investment decisions. We are encouraging each business site to advance their own initiatives. This menu was created by referencing the pioneering activities of other corporations and organizations and consists of 116 items covering all aspects of our business operations, including the value chain. Each business site selects those activities it will undertake from the menu, and the total number of initiatives becomes the Group's target for ecosystem preservation. Our goal for new initiatives in fiscal 2018 was 600, and 953 were actually launched.

Initiatives based on the Ecosystem Preservation Activities Menu have now become well-established, so no new Group-wide goals will be set for fiscal 2019 and beyond. Rather, ecosystem preservation activities will be advanced in accordance with the goals set by each business site.

Ecosystem Preservation Activities Menu

Category		Activities Taken	Number of Items
Business sites	Production	Reducing use of resources that cannot be reused	4
	Transportation	Using packaging that takes ecosystem into consideration	7
	Collection, disposal, and recycling	Reducing hazardous materials in products	2
	Product planning, development, and design	During R&D, estimating impact on biodiversity during a product's life cycle and implementing, if needed, mitigation measures	3
	Site management	Using native species, setting up biotopes	17
	Water use	Using rainwater	1
Value chain	Investment and acquisition	Confirming impact on biodiversity when investing in or acquiring a business, and implementing measures to minimize such impact	1
	Market entry and expansion	Including biodiversity as an investment criterion	1
	Business development	Developing products and services to purify water, air, and soil and expanding such businesses	1
	Procurement	Preferentially procuring paper and other office supplies that take biodiversity into consideration	17
	Transportation	Implementing ballast water measures during marine transportation	2
	Sales	Implementing sales expansion of products that take biodiversity into consideration	9
	Collection, disposal, and recycling	Reusing and recycling components	7
	Entire value chain	Promoting the use of renewable energy	1
Community	Engagement	Promoting employee activities outside the company	3
	Social contribution	Implementing desert greening and afforestation activities	12
Water use that takes watershed ecosystem into consideration	Water intake	Observing and collecting biota information (impact on ecosystem depending on intake volume)	14
	Water discharge	Setting up biota management indicators and making observations (species and numbers of inhabiting organisms)	14

Promoting Ecosystem Preservation

Tokyo Waterworks—Corporate Forest: Forest Maintenance Activities to Conserve Tokyo's Water Resources
(Water & Environment Business Unit, Hitachi, Ltd.)

Hitachi provides water and sewerage systems and other water environment solutions, and it also promotes forest maintenance activities toward the conservation water resources to ensure supplies of safe and high-quality water. The Tokyo Waterworks–Corporate Forest project is part of the implementation plan for the Water Resource Forest Created by Everyone, an initiative announced by the Tokyo Metropolitan Government Bureau of Waterworks in March 2017 to conserve water resources. Hitachi and other participating companies support this project by carrying out planting, thinning, and other maintenance activities in the water conservation forests along the upper basin of the Tama River. The activities started in June 2017 and are being implemented over a period of three years.

Of the water conservation forests providing water to the Tokyo metropolitan area, Hitachi employees work together to help maintain 3.19 hectares in the city of Koshu, Yamanashi Prefecture, which we have named the Water Resources Forest "Kinopon."

Participating employees get an opportunity to learn about the history and methods of forest conservation that go back more than 110 years from members of the Tokyo Waterworks Bureau, as well as about the changes that occur through the seasons. Working in the forest enables participants to gain a deeper understanding of water resources and forests and to develop a greater awareness of the environment.

Hitachi contributes to the conservation of the environment to ensure safe, stable, and high-quality drinking water by planting trees for the next generation and by protecting and nurturing forests.

Participants pose next to a sign for the Water Resources Forest "Kinopon."

"Arakawa Clean Aid" Aimed at Addressing the Problem of Ocean Plastic Waste (Hitachi Building Systems Co., Ltd.)

Hitachi Building Systems supports the activities of the Arakawa Clean Aid Forum, a specified nonprofit organization that promotes cleanup activities along the Arakawa riverbed to restore its rich natural environment. The Arakawa River is one of the major water sources for the Kanto Region, which includes Tokyo.

The Arakawa Clean Aid Forum examines the kinds and volume of trash that are collected to ascertain the causes of litter and to identify amelioration measures with the aim of reducing damage to the ecosystem.

These cleanup activities, organized jointly by the Arakawa Clean Aid Forum and the Ministry of Land, Infrastructure, Transport, and Tourism, are held at more than 100 locations each year and attract a total of more than 10,000 participants.

Hitachi Building Systems initially participated with a handful of employees, but since 2015, when the riverbed cleanup became part of a new employee training program, more than 400 people have participated over several days each year. The cleanup is followed up with group work, including a meeting where the results of analysis and the opinions of participants are reported. Such meetings allow new employees to experience the full meaning and impact of CSR. In 2017 and 2018 Hitachi Building Systems employees accounted for some of the largest volume of trash collected and were honored with awards from the Arakawa Clean Aid Forum.

Much of the plastic waste in the ocean flows in from rivers. Hitachi Building Systems views the riverbed cleanup as contributing directly to resolving this increasingly serious global concern and will continue to support Arakawa Clean Aid in the future.

New employees who participated in Arakawa Clean Aid.

Tree-Planting Activities at Business Sites Outside Japan (Systems & Services Business, Hitachi, Ltd.)

Hitachi Computer Products (America), located in Oklahoma, has been engaging in afforestation activities since 1986. In 1990, the company began cultivating saplings on its grounds and transplanting them around buildings and along roads. Members of the Green 21 Team of employee volunteers led an effort to plant 400 fruit tree saplings in 2018, bringing the total area covered by planted trees to around 15 acres (approximately 60,000 m^2). Wildflowers also grow around these trees, creating a habitat for butterflies, bees, and other pollinators. The company plans to continue planting an additional 600 trees over a 3-acre area by 2024.

In addition, the company has been distributing saplings to its employees every year on Oklahoma's Arbor Day, a tree-planting holiday, since 2013, encouraging them to plant the saplings in their own yards or on company grounds. In 2018, 700 saplings were distributed to 300 employees.

In China, meanwhile, Hitachi Financial Equipment System (Shenzhen) has been taking part in various tree-planting activities since 2009 in response to an appeal made by the municipal government. In 2018, 40 employees and family members planted 50 trees in Zhongshan Park in the Nanshan District, bringing the total number of trees planted through the company's activities to 1,030.

These activities not only contribute to CO_2 absorption and ecosystem preservation but also help to raise environmental awareness among employees and their families.

Trees and wildflowers growing on the grounds of Hitachi Computer Products (America).
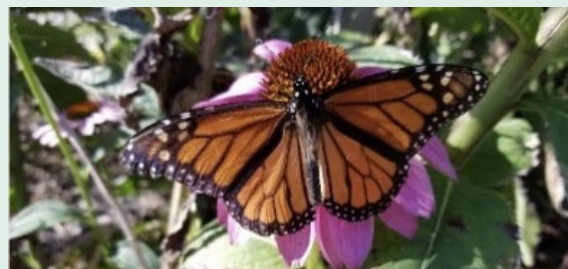
The grounds have become a habitat for pollinators like this monarch butterfly.

Employee volunteers from Hitachi Financial Equipment System (Shenzhen) and their family members who took part in tree-planting activities.

Environmental Data

Environmental Load Through the Value Chain

Calculation of GHG Emissions Throughout the Value Chain

We calculate greenhouse gas (GHG) emissions throughout the entire value chain in conformance with GHG Protocol standards to more effectively reduce these emissions. As a substantial amount of emissions comes from use of the products we sell, we make an ongoing effort to reduce emissions by enhancing the efficiency and energy-saving features of our products and services during their use.

Scope 1
Direct emissions from in-house fuel use and industrial processes
1.87 Mt-CO_2e (1.3%)

Scope 2
Indirect emissions from production of electricity and heat purchased by the company
2.60 Mt-CO_2e (1.9%)

Total GHG Emissions
141.49
Mt-CO_2e

Scope 3: Downstream
Other indirect emissions not covered by Scope 1 and 2
(Emissions by other entities related to the company's activities)
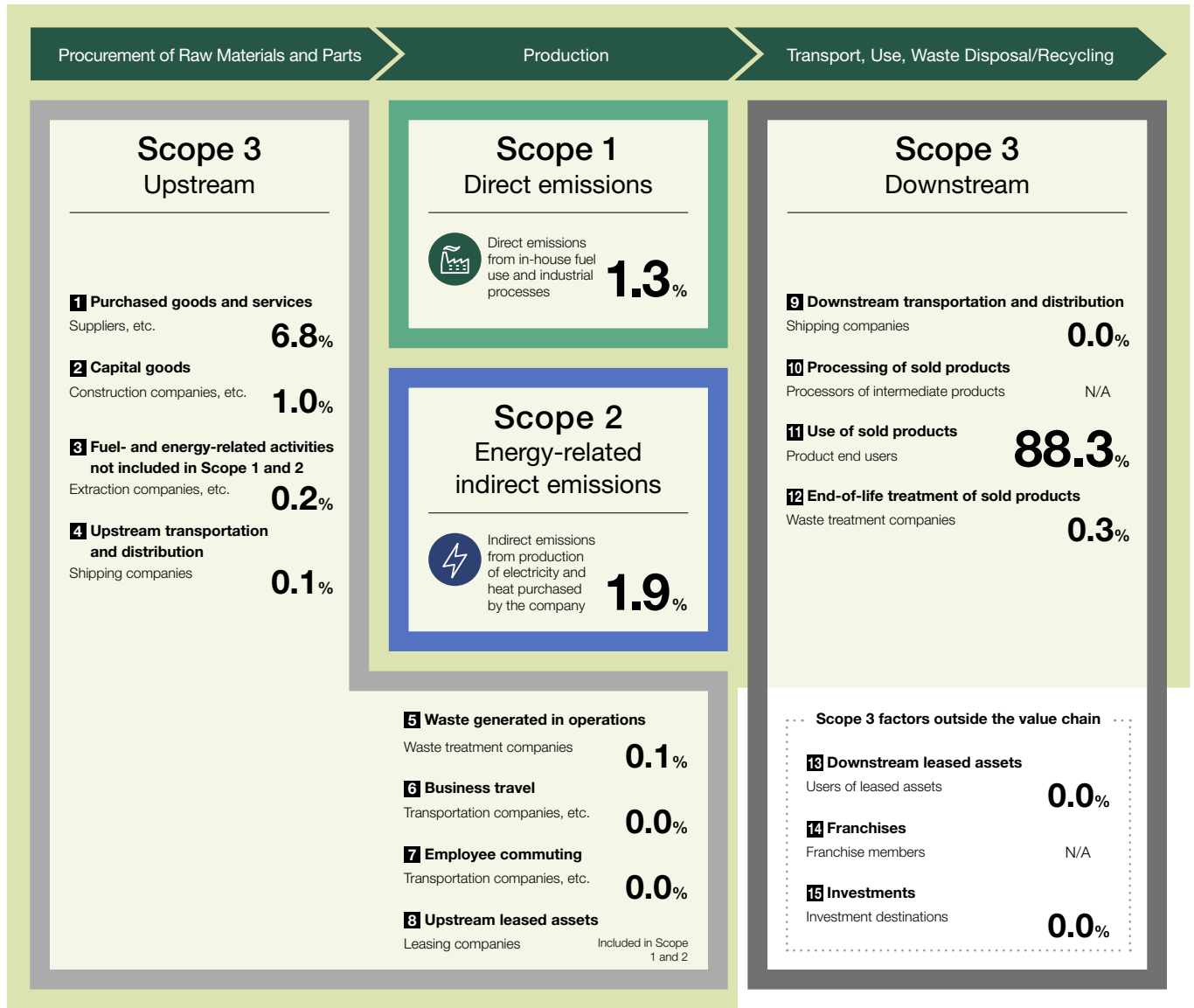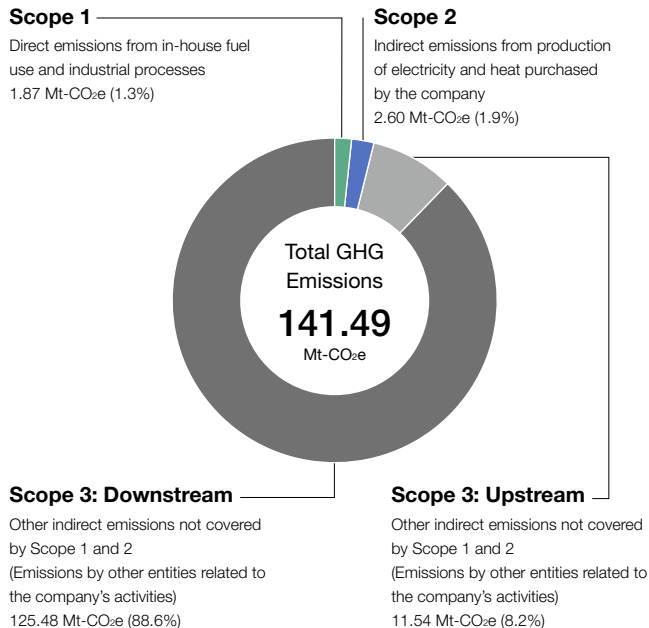125.48 Mt-CO_2e (88.6%)

Scope 3: Upstream
Other indirect emissions not covered by Scope 1 and 2
(Emissions by other entities related to the company's activities)
11.54 Mt-CO_2e (8.2%)

Procurement of Raw Materials and Parts > Production > Transport, Use, Waste Disposal/Recycling

Scope 3
Upstream

1 Purchased goods and services
Suppliers, etc.
6.8%

2 Capital goods
Construction companies, etc.
1.0%

3 Fuel- and energy-related activities not included in Scope 1 and 2
Extraction companies, etc.
0.2%

4 Upstream transportation and distribution
Shipping companies
0.1%

Scope 1
Direct emissions

Direct emissions from in-house fuel use and industrial processes
1.3%

Scope 2
Energy-related indirect emissions

Indirect emissions from production of electricity and heat purchased by the company
1.9%

5 Waste generated in operations
Waste treatment companies
0.1%

6 Business travel
Transportation companies, etc.
0.0%

7 Employee commuting
Transportation companies, etc.
0.0%

8 Upstream leased assets
Leasing companies
Included in Scope 1 and 2

Scope 3
Downstream

9 Downstream transportation and distribution
Shipping companies
0.0%

10 Processing of sold products
Processors of intermediate products
N/A

11 Use of sold products
Product end users
88.3%

12 End-of-life treatment of sold products
Waste treatment companies
0.3%

Scope 3 factors outside the value chain

13 Downstream leased assets
Users of leased assets
0.0%

14 Franchises
Franchise members
N/A

15 Investments
Investment destinations
0.0%

In-house: Within the scope of the company's organizational boundaries. In principle, the scope of all business activities of the company itself and activities within or controlled by its consolidated subsidiaries.
Upstream: In principle, activities related to purchased products and services.
Downstream: In principle, activities related to sold products and services.

GHG Emissions Throughout the Hitachi Value Chain (Hitachi Group)

Category	Description	Calculation Results (Mt-CO_2e)
Scope 1*1		
Direct emissions	Direct emissions from in-house fuel use and industrial processes	1.87 (1.3%)
Scope 2*2		
Energy-related indirect emissions	Indirect emissions from production of electricity and heat purchased by the company	2.60 (1.9%)
Scope 3: Upstream (other indirect emissions)		
1 Purchased goods and services	Emissions from the resource extraction stage to the manufacturing stage, including raw materials, parts, supplied products, and sales	9.51 (6.8%)
2 Capital goods	Emissions generated in the construction, manufacture, and shipping of the company's own capital goods, such as equipment, devices, buildings, facilities, and vehicles	1.45 (1.0%)
3 Fuel- and energy-related activities not included in Scope 1 and 2	Emissions from procuring fuel necessary for electricity and other energy production, including resource extraction, production, and shipping	0.24 (0.2%)
4 Upstream transportation and distribution	Emissions from distribution of raw materials, parts, supplied products, and sales prior to delivery of materials to the company, as well as other distribution activities of products for which the company bears the expense	0.10 (0.1%)
5 Waste generated in operations	Emissions from transportation, disposal, and treatment of waste generated in the company's operations	0.11 (0.1%)
6 Business travel	Emissions generated from fuel and electric power used by employees for business travel	0.07 (0.0%)
7 Employee commuting	Emissions generated from fuel and electric power used in employee commuting	0.06 (0.0%)
8 Upstream leased assets	Emissions from the operation of assets leased by the company, excluding those counted in Scope 1 and 2	Included in Scope 1 and 2
Scope 3: Downstream (other indirect emissions)		
9 Downstream transportation and distribution	Emissions from transportation, storage, loading and unloading, and retail sales of products	0.01 (0.0%)
10 Processing of sold products	Emissions by downstream companies during processing of intermediate products	N/A*3
11 Use of sold products*4	Emissions from use of products by end users, such as consumers and businesses	125.05 (88.3%)
12 End-of-life treatment of sold products*4	Emissions from transportation, waste disposal, and treatment of products by end users, such as consumers and businesses	0.31 (0.3%)
13 Downstream leased assets	Emissions from operating assets owned by the reporting company as lessor and leased to other entities	0.03 (0.0%)
14 Franchises	Emissions by franchises under Scope 1 and 2	N/A
15 Investments	Emissions related to management of investments	0.08 (0.0%)
Total		141.49 (100%)

Note: Figures in parentheses are percentages of GHGs emitted throughout the value chain.

*1 Includes SF_6, PFC, HFC, N_2O, NF_3, and CH_4. The gas and fuel conversion factor is based on the list of emissions and calculation methods published by Japan's Ministry of the Environment.

*2 The CO_2 electrical power conversion factor uses the 2005 emission coefficient for Japan published by the International Energy Agency (IEA) in the 2010 edition of *CO_2 Emissions from Fuel Combustion*.

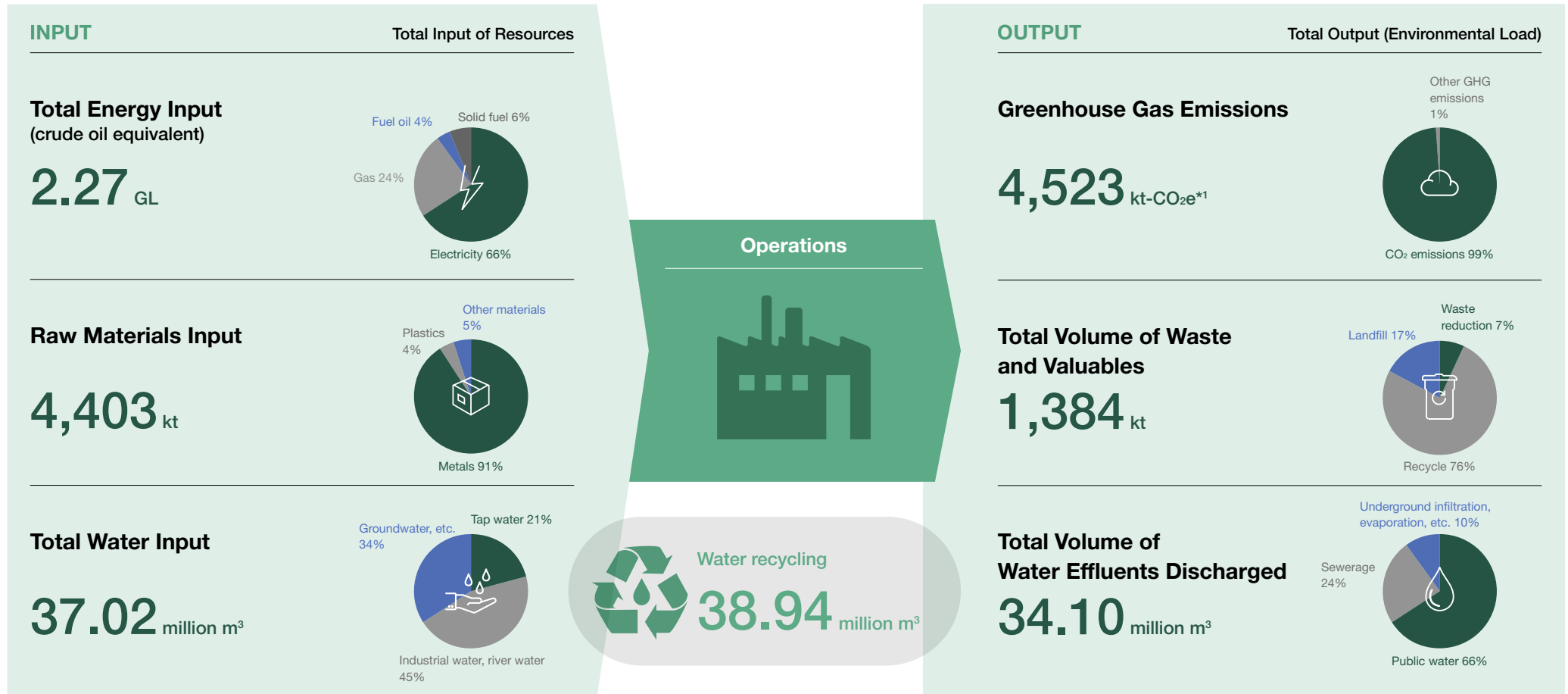*3 Cannot be determined due to insufficient information on processing.

*4 CO_2 emissions per unit is based on the Inventory Database for Environmental Analysis (IDEA), developed by the National Institute of Advanced Industrial Science and Technology (AIST) and the Japan Environmental Management Association for Industry (JEMAI).

Environmental Load from Operations

Data on Environmental Load from Operations (Hitachi Group, FY 2018)

The data below shows the resource inputs and the environmental load for Hitachi Group operations in fiscal 2018.

Products shipped: 2,843 kt

INPUT — Total Input of Resources

Total Energy Input
(crude oil equivalent)

2.27 GL

- Solid fuel 6%
- Fuel oil 4%
- Gas 24%
- Electricity 66%

Raw Materials Input

4,403 kt

- Other materials 5%
- Plastics 4%
- Metals 91%

Total Water Input

37.02 million m³

- Tap water 21%
- Groundwater, etc. 34%
- Industrial water, river water 45%

Operations

Water recycling

38.94 million m³

OUTPUT — Total Output (Environmental Load)

Greenhouse Gas Emissions

4,523 kt-CO₂e*1

- Other GHG emissions 1%
- CO₂ emissions 99%

Total Volume of Waste and Valuables

1,384 kt

- Waste reduction 7%
- Landfill 17%
- Recycle 76%

Total Volume of Water Effluents Discharged

34.10 million m³

- Underground infiltration, evaporation, etc. 10%
- Sewerage 24%
- Public water 66%

*1 CO₂e: CO₂ equivalent.

Click here for detailed information.

Detailed Data on Resource Input and Environmental Load Output

▌Total Input of Resources

Total resources input from Hitachi Group operations.

Total Energy Input

Energy consumption: (crude oil equivalent) 2.27 GL

			FY 2017	FY 2018
Renewable energy	Electricity		3.1 GWh (11.2 TJ)	7.1 GWh (25.6 TJ)
Non-renewable energy	Electricity		6,020 GWh (21.7 PJ)	6,021 GWh (21.7 PJ)
		For heating	130 GWh (0.5 PJ)	128 GWh (0.5 PJ)
		For cooling	277 GWh (1.0 PJ)	273 GWh (1.0 PJ)
		To generate steam	644 t (1.5 TJ)	648 t (1.5 TJ)
	Gas	Natural gas	0.19 Gm^3 (8.6 PJ)	0.18 Gm^3 (8.0 PJ)
		For heating	18.4 Mm^3 (0.8 PJ)	18.6 Mm^3 (0.8 PJ)
		For cooling	10.3 Mm^3 (0.5 PJ)	10.5 Mm^3 (0.5 PJ)
		To generate steam	560 kt (1.3 PJ)	567 kt (1.3 PJ)
		LPG, LNG, etc.	269 kt (14.5 PJ)	251 kt (13.5 PJ)
	Fuel oil (heavy oil, kerosene, etc.)		117 ML (4.5 PJ)	87 ML (3.4 PJ)
	Solid fuel (coke)		179 kt (5.3 PJ)	189 kt (5.5 PJ)

Raw Materials Input

Materials: 4,403 kt

			FY 2017	FY 2018
Materials	Metals		3,388 kt	4,031 kt
		New materials	1,571 kt	1,624 kt
		Recycled materials, etc.	1,817 kt	2,407 kt
	Plastics		151 kt	165 kt
		New materials	150 kt	163 kt
		Recycled materials, etc.	1 kt	2 kt
	Other materials		258 kt	207 kt
		New materials	250 kt	201 kt
		Recycled materials, etc.	8 kt	6 kt
Chemicals	PRTR substances[1] handled		205 kt	189 kt
	Ozone-depleting substances handled		77 t	130 t
	Greenhouse gas substances handled		5,656 t	5,640 t

[1] PRTR substances: The 462 chemicals designated in Japan's Pollutant Release and Transfer Register (PRTR) Law.

Total Water Input   Water use: 37.02 million m³

		FY 2017	FY 2018
Water provided by municipality or other sources	Tap water	7.40 million m³	**7.61 million m³**
	Industrial water, river water	17.46 million m³	**16.63 million m³**
Groundwater		13.56 million m³	**12.74 million m³**
Rain water		0.02 million m³	**0.01 million m³**
Recycled water (recycled from the wastewater of other organizations)		0.10 million m³	**0.03 million m³**

▌Total Output of Environmental Load

Environmental load output from Hitachi Group operations.

☁ Greenhouse Gas Emissions

Greenhouse gases: 4,523 kt-CO_2e

		FY 2017	FY 2018
CO_2 emissions ⊘		4,663 kt-CO_2	**4,470 kt-CO_2**
Other GHGs	SF$_6$ (sulfur hexafluoride)	40 kt-CO_2e	**35 kt-CO_2e**
	PFCs (perfluorocarbons)	4 kt-CO_2e	**5 kt-CO_2e**
	HFCs (hydrofluorocarbons)	7 kt-CO_2e	**3 kt-CO_2e**
	N$_2$O, NF$_3$, CH$_4$ (dinitrogen monoxide, nitrogen trifluoride, methane)	1 kt-CO_2e	**3 kt-CO_2e**
	CO_2 from non-energy sources	3 kt-CO_2	**7 kt-CO_2**

Notes:
- The CO_2 electrical power conversion factor uses the 2005 emission coefficient for Japan published by the International Energy Agency (IEA) in the 2010 edition of *CO_2 Emissions from Fuel Combustion*.
- The gas and fuel oil conversion factor is based on the list of emissions and calculation methods published by Japan's Ministry of the Environment.

♺ Total Volume of Waste and Valuables

Waste and valuables generation: 1,384 kt   Nonhazardous: 1,348 kt (hazardous[1]: 36 kt)

		FY 2017	FY 2018
Waste reduction		83 kt (9.0)	**94 kt (5.6)**
Recycling	Reuse	1 kt (0.4)	**1 kt (0.0)**
	Materials recycled	1,038 kt (20.2)	**1,044 kt (25.6)**
	Thermal recovery	11 kt (1.4)	**13 kt (1.4)**
Landfill		223 kt (5.2)	**232 kt (3.7)**
Chemicals	PRTR substances discharged or transferred	4.2 kt	**4.1 kt**
	SOx (sulfur oxides)	107 kNm^{3}[2]	**96 kNm^{3}[2]**
	NOx (nitrogen oxides)	469 kNm^3	**452 kNm^3**
	Ozone-depleting substances emitted (CFC-11, etc.)	1 t (0 t-ODP[3])	**1 t (0 t-ODP[3])**

[1] Waste materials that pose a threat to human health or the living environment. We dispose of all such materials in accordance with the laws and regulations of each country and region.

[2] Includes SOx generated by a materials company that became a consolidated member of the Hitachi Group in fiscal 2016.

[3] ODP (ozone depletion potential): A coefficient indicating the extent to which a chemical compound may cause ozone depletion relative to the depletion for CFC-11 (trichlorofluoromethane, ODP = 1.0). The emissions factor uses the ODP and global warming potential of Japan's Ministry of the Environment.

♦ Total Volume of Water Effluents Discharged

Water effluents discharged: 34.10 million m^3

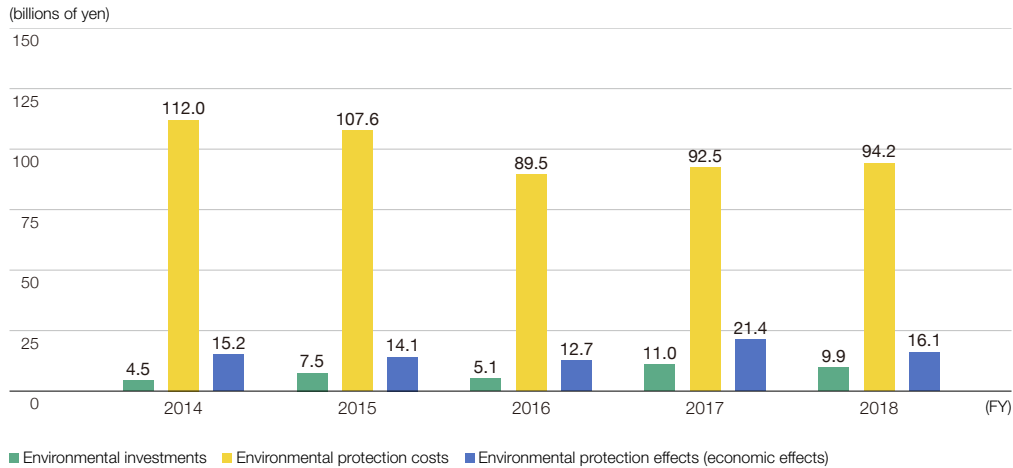|		FY 2017	FY 2018
Public water		23.12 million m^3	**22.44 million m^3**
Sewerage		8.62 million m^3	**8.18 million m^3**
Underground infiltration, evaporation, etc.		3.39 million m^3	**3.48 million m^3**
Water quality	BOD (biochemical oxygen demand)	392 t	**390 t**
	COD (chemical oxygen demand)	617 t	**1,701 t**

Environmental Accounting
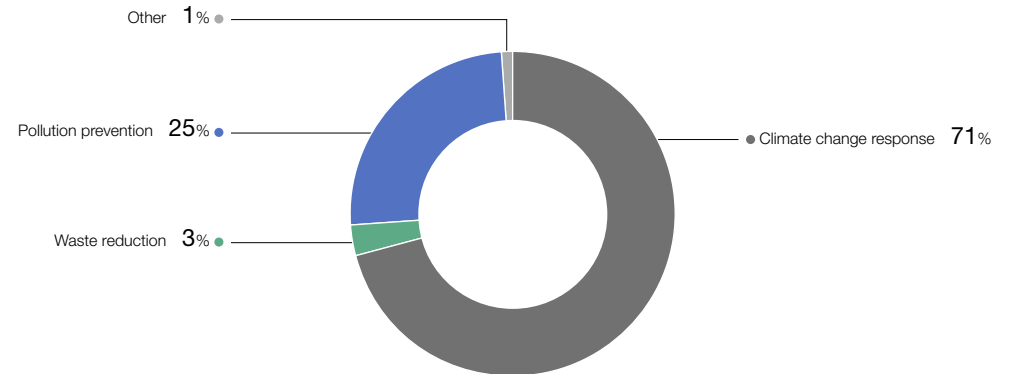
Objectives, Activities, and Achievements

Hitachi discloses environmental accounting data based on a set of environmental accounting procedures conforming to the Japanese Ministry of the Environment's Environmental Accounting Guidelines. We use the environmental accounting data to raise the efficiency of our environmental investments and activities, more effectively allocating management resources to our ongoing environmental efforts.

Achievements

Environmental Investments, Environmental Protection Costs, and Economic Effects (Hitachi Group)

(billions of yen)

- ■ Environmental investments
- ■ Environmental protection costs
- ■ Environmental protection effects (economic effects)

Fiscal 2018 Environmental Investments by Countermeasure (Hitachi Group)

Other **1**% ●
Pollution prevention **25**% ●
Waste reduction **3**% ●
● Climate change response **71**%

Environmental Investments

(billions of yen)

	Description	FY 2014	FY 2015	FY 2016	FY 2017	**FY 2018**
Total investment	Investment in energy-saving equipment and equipment that directly reduces environmental load	4.46	7.50	5.12	10.99	**9.86**

Environmental Protection Costs

(billions of yen)

Item	Description	FY 2014	FY 2015	FY 2016	FY 2017	**FY 2018**
Expenses						
Business area	Maintenance costs for equipment with low environmental load, depreciation, etc.*1	26.90	24.22	19.19	22.17	**23.57**
Upstream/downstream	Green procurement expenses, recovery and recycling of products and packaging, recycling expenses	1.09	0.97	0.63	0.72	**0.68**
Administration	Labor costs for environmental management, implementation and maintenance of environmental management system	6.47	5.97	5.12	5.69	**6.72**
Research and development	R&D to reduce environmental burden caused by products and production processes, product design expenses	76.12	75.71	63.13	62.55	**61.86**
Social activities	Planting, beautification, and other environmental improvement expenses	0.36	0.45	1.21	1.00	**0.93**
Environmental remediation	Environmental mitigation costs, contributions, and charges	1.03	0.27	0.22	0.33	**0.40**
Total		111.97	107.59	89.50	92.46	**94.16**

*1 Equipment depreciation costs are calculated using the straight-line method over five years.

Environmental Protection Effects

• Economic Effects*1

(billions of yen)

Item	Major FY 2018 Activities	FY 2014	FY 2015	FY 2016	FY 2017	**FY 2018**
Net income effects	Recovering value from waste by sorting and recycling	7.54	7.27	4.96	6.90	**8.35**
Reduced expenses effects	Installing high-efficiency equipment (lighting, power supply)	7.65	6.78	7.77	14.54	**7.70**
Total		15.19	14.05	12.73	21.44	**16.05**

*1 Economic effects include:
  • Net income effects: Benefits with real incomes, including incomes from the sale of resalable materials and incomes from environmental technology patents.
  • Reduced expenses effects: Reduction in electricity, waste treatment, and other expenses through environmental load reduction activities.

• Physical Effects*1

(million kWh)

Item	Major FY 2018 Activities	FY 2014	FY 2015	FY 2016	FY 2017	**FY 2018**
Reduction in energy used during production	Installing LED lighting, upgrading air-conditioning equipment, etc.	68	59	51	41	**55**

*1 Physical effects refer to the annual amount of reduction in electricity consumption due to measures invested in during each fiscal year.

Environmental Liability

We have appropriated 7.2 billion yen in expenses for the disposal of PCB-containing waste and 1.5 billion yen to clean up contaminated soil as the amounts that we can reasonably project as of March 2019 as future environmental liabilities.

Social

CONTENTS

Striving to Increase Social Value

In order to grow sustainably and improve social value, Hitachi must meet a range of social expectations. As well as creating the innovation sought by society, we need to establish a working environment where diverse talent can shine, and rigorously implement fair business practices and respect for human rights throughout the value chain. We also aim for greater involvement in and development of the communities related to our businesses.

Our third Global Women's Summit had the theme "Leading Through Diversity & Inclusion" (October 2018, Singapore).

Innovation Management

Hitachi's Approach

Hitachi will strengthen its Social Innovation Business, which has been the key focus under Hitachi's Corporate Credo "to contribute to society through the development of superior, original technology and products," and will contribute to the sustainable development of society by utilizing its internet of things (IoT) and artificial intelligence (AI) capabilities, thus helping to achieve the Sustainable Development Goals (SDGs) through the realization of Society 5.0. To this end, we will help resolve customer issues by further enhancing Lumada and NEXPERIENCE, a methodology for collaborative creation with customers. "Kyōsō-no-Mori," a new research initiative for open collaborative creation, will also support our customers in resolving their challenges, and we will promote open innovation through vigorous activity in the field of intellectual property (IP).

Our Impact on Society

R&D Personnel

2,650

Our Performance

R&D Expenditure (consolidated)

323.1 billion yen

Research and Development (R&D)

Hitachi's R&D Initiatives and R&D Policy for Fiscal 2019

`Policy` `Frameworks and Systems`

Hitachi has established an R&D policy for fiscal 2019 of becoming a global innovation leader in the fields of SDGs and Society 5.0. With Lumada as a base, we will fully utilize our expertise in operational technology (OT), IT, and products, along with the technological foundation established by our R&D department, to create solutions through collaborative creation with customers in the five sectors of mobility, smart life, industry, energy, and IT. We will create social, environmental, and economic value for our customers, as well as improving people's quality of life.

In order to accelerate collaborative creation with customers, in fiscal 2015 we realigned our R&D structure under a customer driven model, developed NEXPERIENCE, and strengthened our digital solutions development.

NEXPERIENCE is a systematized methodology for collaborative creation that allows us to precisely identify social challenges in business areas, design business models based on incubated ideas, and assess profitability. It helps expand solution core templates based on Lumada customer cases and selected OT- and IT-based customer cases. In fiscal 2018 we released a tool that uses AI to identify the most appropriate stored customer cases for resolving a given customer's issues, and we will continue to evolve NEXPERIENCE to create new value.

In April 2019 we opened "Kyōsō-no-Mori," a facility for global collaborative creation in harmony with the surrounding environment, within our Central Research Laboratory. Kyōsō-no-Mori aims to develop open innovation ecosystems through open collaborative creation, connecting our researchers and designers to stakeholders including customers and academic research institutions around the world. We also concluded a comprehensive partnership agreement with Kokubunji City, where Kyōsō-no-Mori is located, to explore future societal systems supporting the sustainable development of regional communities.

In pursuing our R&D policy to become a global innovation leader in the fields of SDGs and Society 5.0, we will focus on three areas: the Global Center for Social Innovation (CSI) will take the lead in enhancing co-creation of global solutions, the Center for Technology Innovation (CTI)

will be primarily responsible for creating the world's No. 1 technologies for solutions and products, and the Center for Exploratory Research (CER) will promote basic exploratory research to resolve issues in society.

R&D Policy for Fiscal 2019

Become a global innovation leader in the fields of SDGs and Society 5.0

CSI
Global Center for Social Innovation

Co-creation of global solutions

- Develop business models by means of CV, ideathons/hackathons
- Promote open co-creation in solution priorities & focus regions

CTI
Center for Technology Innovation

Creation of world's No. 1 technologies for solutions and products

- Value-based creation of world's No. 1 technologies
- Build Lumada ecosystem, including OT, IT, and products

CER
Center for Exploratory Research

Basic exploratory research to resolve social issues

- Generate human-centric value through research resolving social issues
- Promote Society 5.0 concept worldwide

Enhancing Co-Creation of Global Solutions

Frameworks and Systems   Objectives, Activities, and Achievements

As part of its efforts to promote initiatives in growth areas and social challenges in its regions of focus, Hitachi has expanded open collaborative creation spaces to a global level and accelerated the pace of innovation. Outside Japan, R&D centers are located in Silicon Valley and Detroit in the United States; in London, Cambridge, Copenhagen, Sophia Antipolis, and Munich in Europe; in Beijing, Shanghai, and Guangzhou in China; and in other cities across India, Singapore, and Australia. These regional centers aim to contribute to global society by collaboratively resolving regional and customer issues.

Also, in May 2019, the Hitachi America R&D division was relocated to Hitachi Vantara's new office in Santa Clara, California, to strengthen collaboration and provide a development center for digital solutions to improve people's quality of life through open collaborative creation.

In addition to the current approach of industry-academia-government cooperation to create vision and develop rules, initiatives such as open forums and ideathons are being used to create new services and ideas, as well as hackathons to develop solutions and real-world verification, in our efforts to promote collaborative creation through open innovation.

Events held in fiscal 2018 included an event in Singapore to generate ideas based on advanced FinTech initiatives and trends in related businesses, and a hackathon with Chinese startups and academia to identify blockchain application ideas. We will further promote such activities globally to evolve collaborative creation through open innovation with stakeholders.

Creating the World's No. 1 Technologies for Solutions and Products

Objectives, Activities, and Achievements

In order to achieve our R&D policy goals, we believe it is indispensable to create the world's No. 1 technologies for solutions and products. We have been bringing new value to society by developing globally top-level products and systems such as high-speed, low-noise trains; the world's fastest elevators; particle beam therapy equipment that helps to improve patients' quality of life; semiconductor testing and biochemical/immunological analysis devices with top global market share; industrial machinery such as air compressors and motors; and energy and storage systems. In fiscal 2019, our high-speed train for the UK market was recognized with the Imperial Invention Prize in the National Commendation for Invention, and the Medal with Purple Ribbon was bestowed on Kazuo Hiramoto of our Research & Development Group for inventing innovative particle beam therapy equipment.

We are also advancing our technological developments in each of the five sectors specified in the 2021 Mid-term Management Plan. In the industry sector, we launched the "Hitachi Digital Solution for Retail," an integrated service for the retail distribution industry that collects and stores data from customers, analyzes it with AI, and proposes measures to optimize the value chain. For the manufacturing industry, we launched the "IoT Compass," a solution developed through

collaborative creation with a car manufacturer. This solution facilitates seamless and timely AI analysis and simulation by combining operational and environmental OT data from production equipment with IT data such as production plans and inventory management, thus optimizing the entire production process.

In the IT sector, we developed and deployed solutions for digital administration and cashless settlement in India and North America. India saw the launch of Hitachi MGRM Net, which will help digitalize a broad range of administration services, from education and healthcare to agriculture and insurance, under the Digital India project led by the Indian government. Hitachi America's Financial Innovation Laboratory is participating in the Hyperledger project to jointly develop and standardizes OSS blockchain technologies and develop control and management systems for financial institutions.

Moving forward, we will invest intensively in technologies including these, as well as others combining the five sectors of mobility, smart life, industry, energy, and IT with Lumada. Also, by drawing on our combined expertise in OT, IT, and products, we will strive to develop the world's No. 1 technology and provide high value to our customers.

people can fully participate in, the Hitachi Kobe Laboratory succeeded for the first time in the world in automatically culturing human iPS cells into sheets of retinal pigment epithelial cells. Additionally, the Hitachi Cambridge Laboratory developed the world's first technique for selectively controlling silicon quantum bits using hybrid circuits, as part of their efforts toward creating a data processing environment that can support future societies.

The Hitachi-UTokyo Laboratory promotes "Habitat Innovation," aiming to design cities that strike a balance between efficient urban infrastructure and improved quality of life, alongside energy system projects supporting data-driven society. The laboratory is working with other academic research institutions to prepare policy recommendations and build social consensus toward achieving the SDGs and Society 5.0. At Hitachi Kyoto University Laboratory, in response to Crisis 5.0, a work released in 2017 depicting future challenges in 2050, we have been working with Kyoto University on global public policy recommendations using AI to improve social sustainability.

We will continue to promote these initiatives, grow our open innovation ecosystems, and explore new business opportunities and disruptive technologies through basic exploratory research to resolve social issues.
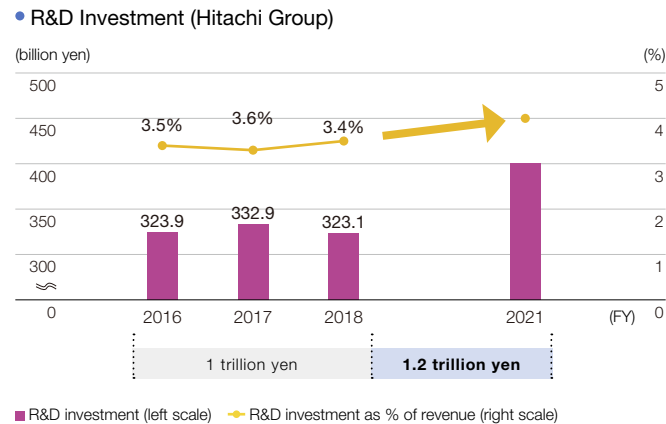
Promoting Basic Exploratory Research to Resolve Social Issues

Objectives, Activities, and Achievements

In order to create economic, environmental, and social value for our customers as specified in the 2021 Mid-term Management Plan, and for the continued growth as a company, we believe we must create new value in harmony with a human-centric society and environment. To meet this challenge, the mission of the Center for Exploratory Research (CER) is to generate human-centric value through basic exploratory research to resolve social issues and promote such concepts to the world, and they are accelerating the development of disruptive technologies to lead Society 5.0 through vision-creating open innovation. To this end, we will continue our cooperation with academic research institutions at our collaborative research bases, such as the Hitachi-UTokyo Laboratory, the Hitachi Hokkaido University Laboratory, the Hitachi Kyoto University Laboratory, and the Hitachi Kobe Laboratory.

In the matter of creating human-centric value with the aim of realizing a society in which all

R&D Investment and Digital Human Capital

Objectives, Activities, and Achievements

Hitachi allocates about 4% of revenue to R&D aimed to strengthen our capabilities in the five core sectors of our Social Innovation Business. We invested approximately one trillion yen under the 2018 Mid-term Management Plan, but will strengthen our R&D by increasing that amount to 1.2 trillion yen under the 2021 Mid-term Management Plan. Regarding corporate-led R&D, we will invest in collaborative creation with customers, developing world-leading technologies, and basic exploratory research. We will also expand our digital common platform and enhance R&D resources outside Japan to ensure the N-fold expansion of our growth engine, the Lumada business, and to expand our global footprint.

At the same time, we are working to develop digital human capital, including top-class digital talent in AI-related areas, to respond to society's needs accompanying recent advancement in

digitalization. The R&D group is focusing on developing digital talent in the field of AI, and plans to increase its headcount from 226 in fiscal 2018 to 350 by fiscal 2021.

● R&D Investment (Hitachi Group)

(billion yen)   (%)

	2016	2017	2018	2021	(FY)
R&D investment	323.9	332.9	323.1		
% of revenue	3.5%	3.6%	3.4%		

1 trillion yen   **1.2 trillion yen**

■ R&D investment (left scale)   ◆ R&D investment as % of revenue (right scale)

Intellectual Property

Hitachi's IP Strategy and Vision   `Policy`

Intellectual property (IP) is a key element of Hitachi's business strategy. From fiscal 2019, Hitachi will promote IP activities to create solutions that enhance value for customers in line with the 2021 Mid-term Management Plan and resolve social issues in line with initiatives like the SDGs and Society 5.0.

We have made a shift in recent years from IP strategy designed to enhance our competitiveness in the product business to IP strategy designed to promote partnerships centered on our digital solution business. This has advanced our collaborative creation strategy focused on IP in the broader sense, including data, putting us ahead of other companies. Based on this collaborative creation strategy, we have engaged in more than 300 business cases of collaborative creation with our customers annually. Through these cases we have recognized the importance of

developing an IP management framework for establishing win-win relationships with our customers while respecting their IP rights.

Globally, however, the situation around IP has been changing and the change is accelerating. Attention has been drawn to liabilities and ethical issues arising from the application of AI, robots, autonomous driving, and other advanced technologies. The issuance of AI Ethics Guidelines in Japan, the United States, and Europe is just one example of the growing demand for a response to these new technologies. There is also a growing trend toward data localization, as seen in the European General Data Protection Regulation (GDPR). And, of course, handling IP has become one of the issues in the trade war between the United States and China. Under the circumstances, we must consider the geopolitical risks when we engage in IP activities. In addition, we are prompted to develop IP strategies based on a balance between competition and collaboration, responding to the rise of IT platform giants, increasing global M&As, and the advance of open innovation.

With all this in the background, we will accelerate our IP activities for a new era by accumulating findings and knowledge about new technologies and national and regional rules and regulations, aiming to create solutions that will deliver value to customers and resolve social issues in line with initiatives like the SDGs and Society 5.0. Regarding IP highly public in nature, for example, we will actively work on making it more publicly accessible, contributing to designing a future society in order to establish "IP for Society," a new IP strategy for a new era.

Hitachi's IP Activities for a New Era   `Policy`

In the Social Innovation Business, Hitachi plans and implements IP strategies appropriate to each area of its product and digital solution businesses.

In the product business, where IP strategies are crucial for competitiveness, we are actively working toward obtaining and using patent and other intellectual property rights (IPRs), and enhancing our competitive edge by planning and implementing an "IP Master Plan" customized to the nature of our business.

In the digital solution business, on the other hand, we have promoted collaborative IP strategies. As opportunities to co-create with our customers and partners using the Lumada IoT platform

increase, we believe it is important to use IP to promote partnerships and to build ecosystems. In order to leverage our IP activities and create solutions, we take a broader view of "intellectual property," which goes beyond patents, copyrights, and trade secrets to include data and information assets as well.

Moving forward, we will make continued efforts to create solutions through IP activities. Our Intellectual Property Division will participate in developing ways to promote new methods of collaborative creation, turning patent information into new technologies and cultivating data scientists capable of utilizing data for IP activities.

Additionally, in order to advance our open innovation activities designed to create solutions, such as the Ideathon and Hackathon, we have formulated the "Kyōsō-no-Mori" IP Guidelines, and will further evolve our IP Master Plan with the aim of combining our product and digital solution businesses.
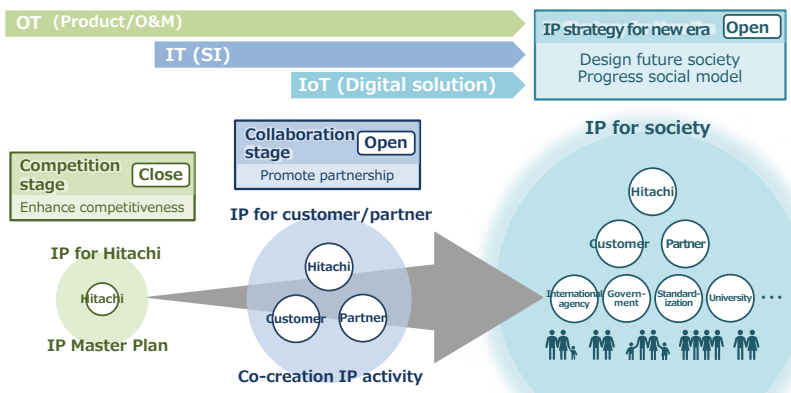
Hitachi Group Codes of Conduct: 6. Protection of Intellectual Property and Brand

Protecting Our Designs and Brand

Protecting Hitachi's designs and brand is crucial for promoting our Social Innovation Business and supporting our global operations. We operate a rigorous regime against such infringements as making and selling counterfeit goods copying our designs or carrying the Hitachi brand and illegally applying for or registering trademarks similar to the Hitachi brand.

Until recently, most counterfeit goods were manufactured in China, but over the past several years manufacturing methods and sales routes have become more sophisticated and diverse, which has spurred us to take further action.

Framework for IP Activities

As of fiscal 2018, we had IP offices in New York and Santa Clara, California, in the United States, Beijing and Shanghai in China, and London in the United Kingdom to cover our globalized business. As a "control tower" for reviewing and implementing new IP activities based on the focus sectors and regions for investment under the 2021 Mid-term Management Plan, in fiscal 2019 we established the IP Strategy Department within the Intellectual Property Division. Going forward, we will make efforts to seek cooperation with major sites around the world, forming global human capital networks in which the new department plays a central role, and building close ties with our newly established Corporate Venturing Office in addition to our strategy planning division and the government and external relations division in Hitachi, Ltd.

To develop globally minded IP human capital, since fiscal 1964 the Intellectual Property Division of Hitachi, Ltd. has operated an international job training system, sending trainees to IP law firms and Group companies in Europe and the United States to study abroad. In fiscal 2018, one employee went to the United Kingdom and one to Singapore for business training, while one employee was sent to Hong Kong in China to study.

Hitachi protects innovations generated from R&D activities under this framework. Specifically, we increased our patent application ratio outside Japan from 47% in fiscal 2009 to 58% in fiscal 2018. We will make further efforts to increase the number of solution patent applications in the United States and China during the 2021 Mid-term Management Plan, aiming to become one of the top patent holders in terms of quality and quantity in the field of social innovation. Going forward, we will continue to efficiently build and maintain our global patent portfolio.

Reward System for Employee Inventions

We motivate employees in the R&D field with an ample reward system for new inventions. To make this reward system as fair and transparent as possible, we set standards to evaluate inventions and disclose these standards to employees. We also have a mechanism for receiving inquiries about the rewards, as well as opinions on the reward system.

We have established a special division within the Intellectual Property Division to plan and operate this system, while an internal Invention Management Committee made up of R&D, legal affairs, personnel management, and IP experts ensures that the system operates effectively across the whole Group. The system includes an invention information channel to promote communication between inventors and the business divisions implementing the resulting patents. Inventors can ask the business divisions for information about patent implementation and check the evaluation standards used to calculate the rewards for their inventions. To ensure transparency and inventor satisfaction, we also set up an Arbitration Committee for Invention Rewards, composed similarly to the Invention Management Committee. Inventors can appeal to this committee if they disagree with the amount they have been awarded.

From fiscal 2005, we have given President's Awards to the top 100 inventors. Since fiscal 2006, we have also given awards to the top 50 young inventors (under 35 years old) based on patent application rewards received within five years of their joining Hitachi.

Achievements Through IP Activities

Our active promotion of IP activities, including efforts to formulate an IP Master Plan and plan IP activities for collaborative creation with customers, have been highly acclaimed by external organizations. In recognition of these efforts, Clarivate Analytics included Hitachi in its Top 100 Global Innovators for the eighth consecutive year, and the Japan Institute of Invention and Innovation presented Hitachi with the 2019 Imperial Invention Prize for our design of the Class 800 high-speed train for the UK. This is the third consecutive year that we have received high honors from the National Commendation for Invention, a prestigious Japanese award for invention established in 1919, and the first time that the Imperial Invention Prize, the highest prize offered by the National Commendation for Invention, has been awarded in recognition of outstanding design. Hitachi, Ltd. has been honored by the organization eight times in total, more than any other recipient.

Human Capital

Hitachi's Approach

The source of sustained growth in the global and digital era is diverse talent to engender innovation and create new value. We at Hitachi seek to attract, develop, and organize our employees by building good relations with them, respecting their fundamental rights, providing equal opportunities, ensuring occupational health and safety, and optimizing the work-life balance. We also actively engage in dialogue regarding compensation and career development.

Our Impact on Society

Ratio of male to female employees

82 % to 18 %

Our Performance

No. and % of female managers (Hitachi, Ltd.)

635 (4.8 %)

2021 HR Strategy

With a mission to contribute to business through talent and organization, Hitachi's human resources division formulated its 2021 HR Strategy, based on the 2021 Mid-term Management Plan that was announced in May 2018. The strategy sets out goals for our diverse employees around the world to grow through their work, to feel proud and happy about working at Hitachi, to respect diverse values, and to contribute to the creation of safe and vibrant workplaces each in their own way.

We are working to build a company where talent with diverse cultural backgrounds, experiences, and ideas can play an active role. We are cultivating a common Hitachi Group Identity in all employees worldwide so they may share the values of Harmony, Sincerity, and Pioneering Spirit that comprise the Hitachi Founding Spirit, working as One Hitachi across countries, regions, and divisions to contribute to society. We are visualizing talent and organizational data to achieve optimized placement, promoting communication and collaboration among employees, applying analytics featuring HR technology[1] to the accumulated data, and improving the efficiency of our operations.

Toward fiscal 2021, we will promote the following enhanced measures around the four key themes of "Talent," "Culture," "Organization," and "HR Transformation."

*1 Technology that creates new value by applying big data analytics, AI, and other IT approaches to the domain of human resources.

Main Enhanced Measures of the 2021 HR Strategy

4 Key Themes of the HR Strategy	Main Enhanced Measures Toward FY 2021
Talent Attract, retain, and develop diverse talent to lead business growth	• Develop digital human resources[1] • Develop mindset and skills to become global leaders • Promote diversity[2]
Culture Transform organizational culture and employee mindset to encourage proactivity and individual growth	• Build Hitachi culture globally[3] • Foster a culture of career ownership
Organization Reform organization and transform employment policies to adapt to environmental changes; take action on organizational reshuffling	• Ensure safety, health, and compliance[4] • Build job-based HR management[5]
HR Transformation	• Execute HR transformation • Implement HR career development and mindset transformation • Shift to digital HR

[1] Developing Human Capital for Frontline and Digital Operations
[2] Diversity and Inclusion
[3] Solidifying the Hitachi Group Identity
[4] Occupational Health and Safety
[5] Developing Global Human Capital

Developing Global Human Capital

Hitachi's Approach to Global Human Capital Management `Policy`

The source of innovation and corporate growth is human capital. In seeking to become a world leader in the Social Innovation Business, we at Hitachi implement a global, Group-wide strategy for the management of our diverse and highly engaged human capital, encouraging them to work across countries and regions and companies and maximize both personal and organizational performance. Further growing the Social Innovation Business on a global basis requires an optimized system for the hiring, promotion, and development of human capital. We thus have globally unified criteria for the evaluation of performance and offer a common leadership development program for employees around the world. In 2015 we announced a new theme for our efforts to build a corporate culture leading to enhanced global competitiveness that focuses on stirring the mindset and heightening awareness of each and every employee.

Developing Global Human Capital `Frameworks and Systems`

A major component of our strategy for managing global human capital is the Global Human Capital Database of full-time, regular Hitachi Group employees. This database enables us to visualize our worldwide Group human capital and to understand the human resources data in macro terms. We have also built a grading system that applies to all managers and higher, using it as a common platform for job evaluations throughout the Group and as a common standard for assessing the value of management duties. In addition, we are implementing a global performance management system to align business objectives with individual goals and to promote the sustained improvement and growth of both individuals and businesses.

We are also working to develop the human capital to drive global business growth. We implemented "Hitachi University," the global common platform for learning opportunities throughout the Group, where everyone is encouraged to learn for growth. In addition, with an eye to supporting the recruitment of full-time, regular employees as our operations expand globally, we have adopted a common recruitment support system worldwide to secure talented human capital, boost efficiency, and reduce hiring costs.

In addition, as a way of integrating the various existing measures for the management of global human capital, we have built a platform containing an array of information about the skills, career orientations, and other aspects of our human capital. The platform will enhance the visualization of our organization and human capital, leading to globally optimized placement, the identification and nurturing of management leaders of the future, and stronger manager-employee communication. This will help us build a human capital management system more aligned with the career and skills development orientation of individual employees.

Ensuring Fair Evaluation and Compensation `Frameworks and Systems`

With the globalization of business, there is an increasing need to establish a fair system of employee evaluation and compensation on a worldwide basis. Hitachi is building a management system based on consistent principles across all areas to attract diverse and highly engaged human capital regardless of nationality. In terms of compensation, for example, we have established a Global Compensation Philosophy shared by all Group companies based on the principles of ensuring market competitiveness, pay for performance, and maintaining transparency.

We have developed a performance-based compensation system for full-time, regular employees that is fair and competitive in the context of the labor market for each national or region industry. Every year, the individual achievements of all employees are reviewed to set their compensation, and feedback on their evaluation results is provided to inspire them to develop and grow even further.

We ensure compliance with the laws and regulations of each country and region in which we operate when determining compensation. Starting pay for new graduates in Japan—who represent about half of all new employees hired each year across the Group's global operations—is roughly 20% higher than the weighted average of Japan's regional minimum wage.

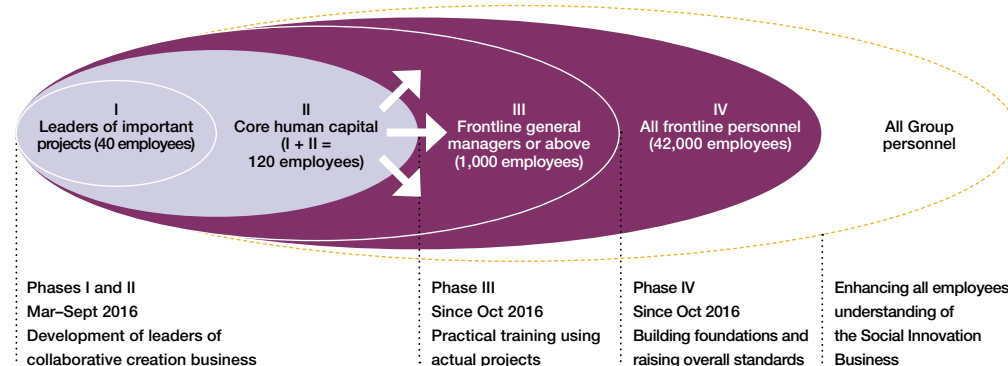## Developing Human Capital for Frontline and Digital Operations

In order to grow the Social Innovation Business, we reorganized our operations in April 2016 to enhance frontline functions and accelerate collaborative creation with customers. Frontline personnel are expected to work closely with customers and draw on Hitachi's technology and know-how to develop new services and facilitate their implementation. We have thus bolstered our efforts to develop the human capital needed to lead the Social Innovation Business as frontline staff.

While many companies understand the need for a digital transformation involving digital technologies like AI and IoT and the utilization of big data, there is a global shortage of data scientists with specialist knowledge of data analysis. So in addition to offering digital solutions by combining our operational technology (OT) and IT—the core strength of our Social Innovation Business—we have also launched an initiative to develop the human capital needed to drive such a digital transformation. We have set a goal of bolstering our Group-wide, worldwide force of data scientists to 3,000 by fiscal 2021 to strengthen our support for customers and to advance the global expansion of our digital solutions business.

Framework for Developing Human Capital for Frontline and Digital Operations

Before reorganizing our frontline operations in 2016, we established a committee of officers and business unit managers in 2015 to identify the frontline functions, roles, and human capital to be strengthened going forward. Based on these discussions, in 2016 we created a four-phase Social Innovation Business Front Talent Development Program covering everyone from top leaders to on-site staff. The program includes many forms of instruction, including action learning, group training, and e-learning. The first two phases for leaders of Hitachi's collaborative creation business focus on action learning based on actual projects. Building on these results, the third and fourth phases offer training for all Hitachi Group employees worldwide.

Aiming to further develop and strengthen our frontline and other personnel engaged digital operations, in April 2019, we consolidated our various training institutes into the Hitachi Academy, a new company charged with developing the human capital to drive the digital transformation. The academy will establish a new training system for digital operations and implement measures incorporating on-the-job training to accelerate the global growth of our Social Innovation Business.

Four-Phase, Social Innovation Business Front Talent Development Program

Phases I and II	Phase III	Phase IV	
Mar–Sept 2016	Since Oct 2016	Since Oct 2016	Enhancing all employees' understanding of the Social Innovation Business
Development of leaders of collaborative creation business	Practical training using actual projects	Building foundations and raising overall standards	

I Leaders of important projects (40 employees)
II Core human capital (I + II = 120 employees)
III Frontline general managers or above (1,000 employees)
IV All frontline personnel (42,000 employees)
All Group personnel

Future Activities in Developing Human Capital for Frontline and Digital Operations
Objectives, Activities, and Achievements

Since the fiscal 2016 launch of the Social Innovation Business Front Talent Development Program, some 1,300 employees have undergone group training in the three years up to fiscal 2018. An additional 42,000 employees have taken e-learning courses that summarize the basic concepts of the Social Innovation Business. The content of the training provided in phases III and IV will henceforth be used to give all human capital in digital operations a common, basic grounding in the Social Innovation Business. Some e-learning courses will be translated into English and Chinese and broadly made available at Group companies worldwide.

Globalizing Management Training
Objectives, Activities, and Achievements

Along with the rollout of global human capital management, we are also globalizing our programs to develop management-level human capital.

We began to thoroughly revise our training of management candidates in fiscal 2015, implementing the Global Leadership Acceleration Program for Key Positions (GAP-K) to accelerate their development. GAP-K helps participants to look at themselves objectively through three modules and to gain a deeper understanding of the Hitachi Group Identity and their own role in maintaining it. They commit themselves to vigorously and fully resolving business issues and challenges with a sense of mission and purpose, share values and goal-oriented thinking while inspiring others, and declare, in their own words, how they will put their skills into practice. Participants also discuss strategies for global business expansion, with special reference to emerging markets, and explore how these strategies can be applied to Hitachi's existing businesses and further growth. In fiscal 2018, 31 people were selected to participate in GAP-K over a three-month period in Japan and India.

Additionally, Hitachi has held the Global Advanced Program for Leadership Development (GAP-L) in Singapore every year since fiscal 2012. The program mainly targets local human capital with potential for leadership at the respective overseas subsidiaries. It is aimed at fostering a deeper understanding of the Hitachi Group's global growth and developing the leadership, thinking, and skills needed for such growth. In fiscal 2018, GAP-L was expanded into a biannual program, and 52 leaders from around the world took part.

We also held the Global Leadership Acceleration Program for Managers (GAP-M) and the Ready to Lead (R2L), the standard leadership training courses for general managers and new managers that started in fiscal 2014. In fiscal 2018, around 3,100 people worldwide took part in these courses across our Group. As a result, the total number of participants has exceeded 17,000.

In fiscal 2019, we plan to launch the Global Group Executive Development Course (Global GEC) for new leaders of Hitachi subsidiaries outside Japan. This e-learning course fosters a basic understanding of Hitachi's management and provides the latest information on relevant topics.

We will continue to cultivate global leaders to guide Hitachi's business by strengthening and expanding training programs for management personnel.

Number of Participants of Global Management Training Programs

(people)

FY	2014	2015	2016	2017	2018
	2,496	3,362	3,530	3,821	3,844
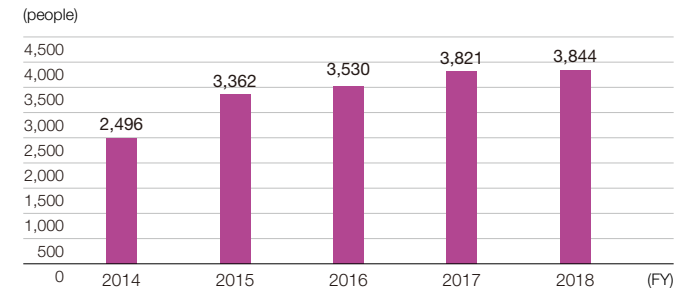
Average Amount Invested in Education per Employee

In fiscal 2018 the average amount invested for employee education by Hitachi, Ltd. and 13 major Group companies in Japan was 127,800 yen per employee, an increase of about 8% over fiscal 2017.

Providing Younger Employees with Overseas Experience

Hitachi maintains a broad array of programs to systematically cultivate and secure people who can succeed in global business. To develop the careers of people capable of understanding and adapting to local cultures and lifestyles, we offer a program enabling younger employees to live outside Japan. We have dispatched around 5,000 Group employees over eight years beginning in fiscal 2011, allowing them to take part in more than 80 programs designed to promote understanding of other cultures and to engage in language studies, local field studies, and internships, as well as to provide opportunities to work with local people to resolve social issues. In fiscal 2015, we shifted our focus to a practical, work-related model of overseas postings instead of the former emphasis on language learning and cross-cultural activities. And in fiscal 2019, we moved to encouraging employees to engage in opportunities for leadership training to accelerate the development of employees ready to take on global challenges.

Skills Development of Chinese Employees

The Hitachi Group in China is working to improve the expertise and overall skills of local employees through the Hitachi University curriculum, on-the-job training, and e-learning. The content and timing of the training program is determined scientifically in accordance with employee workplace and job classification. In addition to these programs, in fiscal 2018, the Hitachi Group conducted 60 group training sessions in China to improve and develop the skills of its employees; over 1,000 people participated in these sessions.

Hitachi's Approach to Career Development Support

There are differences among individual employees with regard to what they find fulfilling in their lives and careers. Bearing this in mind, Hitachi has developed a broad range of career development support that focuses on employees' "internal careers," namely, their individual values and views on the significance and meaning of their work. In addition to ensuring that these individuals can fulfill their potential and maximize their creativity, our aim is also to link that individual growth to the positive outcomes and growth of the organization, thereby enhancing our corporate value. Along with promoting self-understanding and fostering strong individuals with the independence and autonomy to think and act for themselves, we are also providing support to create a framework that will capitalize on the engagement and motivation of individual employees and to enhance mutual understanding as a way of fostering the teamwork needed to enhance organizational strength and performance.

In pursuit of becoming a major global player, we are upgrading individual and organizational performance as one of our top priorities. We respect employees' individuality and personal aspirations in promoting career development and implement Hitachi's Global Performance Management (GPM) grounded in diversity and the individual. We are also committed to supporting career development by fostering communication and mutual understanding between employees and their organizations based on programs encouraging individual employees to take greater control of developing their own careers. In these ways, we provide the resources and tools that enable a wide range of people to work together with enthusiasm.

Career Development Management

For Hitachi, the center of career development is the work that employees perform daily in the workplace. Based on GPM, we implement a cycle aimed at the growth of each employee through a process in which goals for daily tasks are set and then pursued, followed by the evaluation of the results to formulate the next objectives. Every fiscal year we also conduct "performance planning," in which individual employees work with supervisor guidance and support, consulting with their supervisors to reach a consensus regarding short-term objectives. These consultations include discussions about past work and evaluations of the content of the work performed to

date and the degree to which employee goals were met, followed by the setting of goals for the next fiscal year. Repeating the GPM cycle improves individual performance and further increases motivation and creativity, spurring individual growth and improving organizational results. Along with GPM, employees also take part in career consultations with their superiors to discuss their medium- and long-term career plans regarding such matters as requests for transfers or overseas postings.

In addition, Hitachi administers the Career Counseling Center as part of career development support, in order to provide employees with professional counseling services to help them proactively address concerns related to such issues as their jobs, career plans, or personal relations.

Conducting Career Development Workshops

Along with our workplace career development, we also provide direct support for individual career development through our career development programs. Our key program is the Hitachi Career Development Workshop (H-CDW), launched in fiscal 2002 as a Group-wide initiative in Japan. Around 12,600 people have participated in the program so far (as of March 31, 2019), with a focus on technicians, managers, and researchers in their 30s. Participants use self-analysis to deepen their self-understanding with an emphasis on their "internal careers," affirming their career direction, goals, and paths so that they can direct the development of their own career and skills. H-CDW has gained recognition as a high-quality program for in-house career development that has built up research and improvements during a period of over 40 years.

According to the survey conducted of the participants for fiscal 2018, about 90% of the answers agreed that "H-CDW has been helpful to my career development and work." Specific responses received include "Reflecting on my inner career reaffirmed my view of career development (working life) and the meaning of the work I do," "I learned more about myself and began to seriously think about where I want to be 5 or 10 years from now," "I gained a renewed awareness of the importance of my position and responsibilities," and "I was able to make concrete plans for my future steps."

In addition to those programs, Hitachi also offers programs targeting specific age groups, such as career education for younger employees and training for middle-aged or older employees to help them prepare for the changes ahead in their careers. Regarding training for employees aged 50 and over, a survey conducted between October 2017 and March 2019 found that 90% of participants felt that the training had been beneficial. One respondent noted, "I was able to grasp my current situation and look at myself with fresh eyes," while others said, "It was a good opportunity to rethink my attitude toward work and financial planning" and "I would like to make the most of and nurture my career and strengths."

"Make a Difference!" Project

Hitachi believes that raising awareness of each and every employee holds the key to achieving the corporate reforms needed today to remain strong 10 years from now. We thus launched a three-year "Make a Difference!" project in fiscal 2015 involving all Group employee to cultivate an "I will" mindset in line with the 2018 Mid-term Management Plan. In fiscal 2015, the first year of the project, we organized a contest for new business and internal-reform ideas with the aim of encouraging employees to think and act independently. More than 600 entries were submitted from around the world. In fiscal 2016, the second year, the contest evolved into one of proposing business plans, as many expressed a desire to actually implement their ideas. We believe this helps employees gain new insights as they put their ideas into action, and the experience can be an opportunity to think on one's own, make decisions, and see a project through to completion. Even those applications that did not pass the screening stage were given feedback on how they could be improved to encourage further growth in the applicant.

We received numerous applications from within and outside Japan during the three-year project, including proposals from teams spanning business units and divisions. Some award-winning projects have actually been adopted as in-house pilot programs. Examples include Mobile Subscriber Analytics, a cellphone analytics program that can help carriers acquire or retain customers; and MyLifePal, a healthcare app that not only manages sleep and diet data but can also measure pulse and stress level by analyzing facial images.

In fiscal 2019, we launched "Make a Difference! 2.0" in line with the 2021 Mid-term Management Plan that retains the focus on cultivating an "I will" mindset and the framework of the business plan contest while seeking to expand the number of participants who have a strong desire to rise to stimulating challenges.

Number of Applications for the "Make a Difference!" Contest

	FY 2015 (idea contest)	FY 2016 (business plan contest)	FY 2017 (business plan contest)	FY 2019 (business plan contest)
Japan	556	315	251	566
Outside Japan	77	49	115	175
Total	633	364	366	741

Note: The contest was not held in fiscal 2018 while the project was under review. It was resumed in fiscal 2019.

Conducting a Global Employee Survey

Frameworks and Systems

Since fiscal 2013, we have been conducting the annual global employee survey, Hitachi Insights, as a way of measuring employee engagement.[1] In September 2018, the survey was administered for the sixth time. Around 210,000 employees worldwide were sent the survey in one of 14 different languages, and roughly 180,000 responses were received.

According to the aggregate results, the overall rating has improved for the fifth consecutive year. Scores were particularly high for "pride in your company," "delegation of authority," and "management of supervisors," suggesting that employees are proud to be part of a company that is aiming to digitally transform the social and business infrastructure and advance the Social Innovation Business to become a global leader. On the other hand, scores for "resources and support" remained low from fiscal 2017, although there was a slight improvement. We will continue to address this issue through work-life reforms, introduction of new tools, and deepening of communication with employees.

Survey results are sent directly to immediate section and department heads so that they can confirm the survey results and communicate with team members. This can lead to concrete initiatives through the PDCA cycle, further enhancing the level of engagement within Hitachi as a whole.

*1 Hitachi uses the term "engagement" to refer to employees' understanding of the company's strategies and policies, as well as their job satisfaction and desire to take actions on their own initiative to bring about results.

Diversity and Inclusion

Statement on Diversity and Inclusion

Policy

▮ Diversity and Inclusion Open Our Future

Diversity is the wellspring of our innovation and our growth engine. Hitachi regards personal differences such as—gender, nationality, race, religion, background, age, and sexual orientation—as well as other differences, as facets of people's individuality. By respecting our employees' individualities and positioning them as an advantage, Hitachi frames its diversity and inclusion as conducive to both the individual's and the company's sustainable growth. With a diverse workforce, strong teamwork and broad experience in the global market, we will meet our customers' needs.

Roadmap for Developing Diversity Management

Phase 1:
Support for women's career advancement

Phase 2:
From "women" to "diversity"

Phase 3:
Diversity promoted as a management strategy

2012
"Diversity for the Next 100" launched

2009
Diversity & Inclusion Development Center set up

2006
Diversity Promotion Project FF Plan II

2000
FF Plan*1

Support balance between work and nursing care, etc.

Strengthen senior management commitment

Enhance Hitachi Group partnerships

Accelerate promotion throughout Group, including outside Japan

Reduce overtime; review workstyles

Promote time- and location-free work

Promote diversity awareness; reform work environment

Support work-life balance; support women's career advancement

Strengthen women's career development

Introduce, expand support systems for work-life management

1990 2000 2006 2009 2012 2018

*1 The Gender-Free and Family-Friendly (FF) Plan is an initiative to create a better work environment by supporting efforts to balance work and family life and supporting women in the workplace.

Diversity Management Initiative: "Diversity for the Next 100"

Policy

Since the 1990s, we have been at the social forefront, supporting women and other members of our multifaceted workforce. This includes setting up systems to help balance work with child and nursing care. Entering Phase 3 of our diversity management roadmap, we are embracing diversity as a management strategy under the initiative slogan "Diversity for the Next 100." This means creating an environment where women and other members of our varied workforce can use their skills in leadership and business management. From fiscal 2018, we began working to more effectively share our diversity promotion policies across the entire Hitachi Group, with employees around the world coming together as one to accelerate the initiative.

Development Structure of Diversity Management

Frameworks and Systems

The Diversity Development Project, launched in fiscal 2006 under the president's direct control, was replaced in fiscal 2009 with the Diversity & Inclusion Development Center, which currently operates under the direct supervision of the Human Capital Group of Hitachi, Ltd.
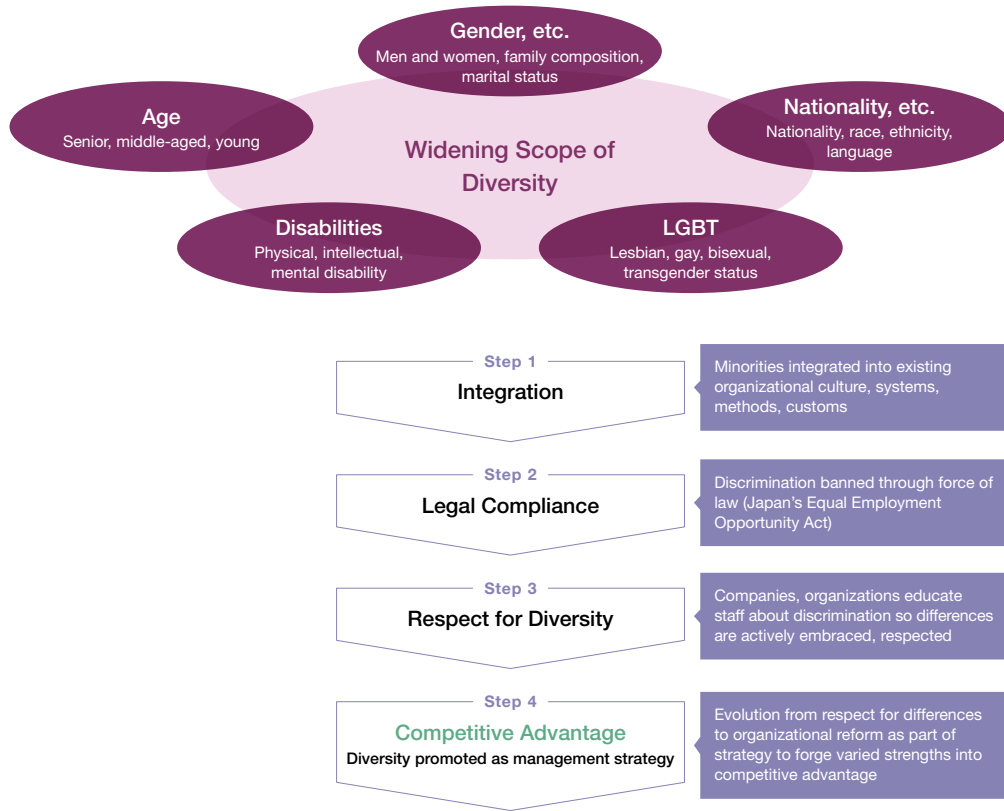
Hitachi, Ltd. and 15 Group companies jointly operate the Advisory Committee and the Diversity Development Council to accelerate awareness across Hitachi as a whole, including support for diverse human resources and work-life management. The Advisory Committee ensures follow-through on our diversity management policy, while the Diversity Development Council discusses specific activities and shares best practices. Both meet every six months.

Group companies and business groups/sites have also set up their own diversity-promotion organizations and projects, such as those to help develop women's careers, in order to enhance initiatives geared to the challenges faced by individual workplaces.
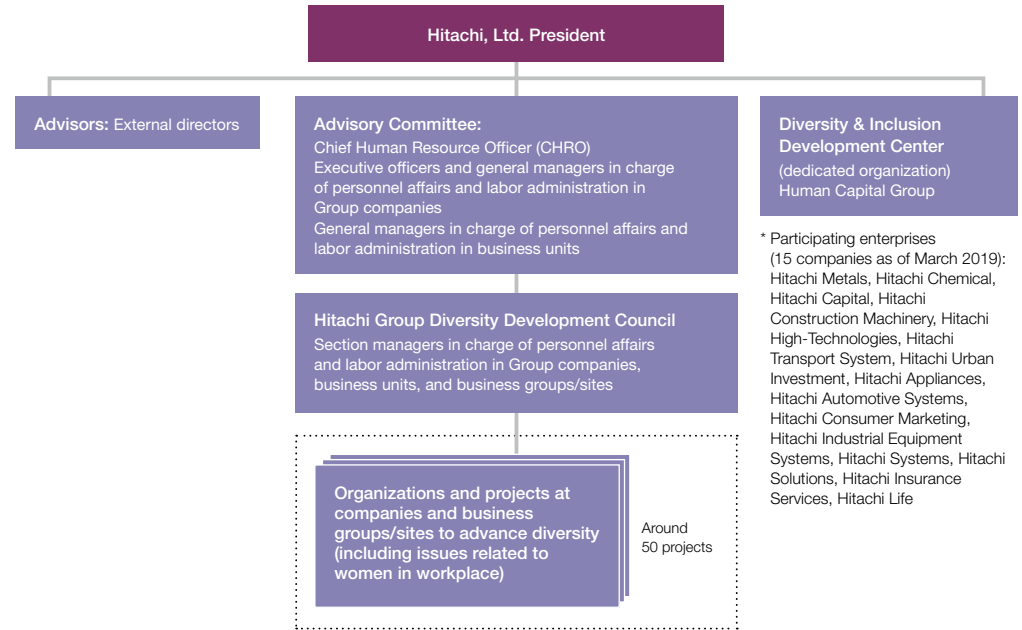
Alongside diversity management promotion within each Group company according to its individual challenges and circumstances, we are also accelerating Group-wide global initiatives such as the Global Women's Summit.

We also hold regular meetings to exchange opinions on diversity with labor unions.

Expanding the Scope of Diversity Management

Gender, etc.
Men and women, family composition, marital status

Age
Senior, middle-aged, young

Nationality, etc.
Nationality, race, ethnicity, language

Widening Scope of Diversity

Disabilities
Physical, intellectual, mental disability

LGBT
Lesbian, gay, bisexual, transgender status

Step 1
Integration
Minorities integrated into existing organizational culture, systems, methods, customs

Step 2
Legal Compliance
Discrimination banned through force of law (Japan's Equal Employment Opportunity Act)

Step 3
Respect for Diversity
Companies, organizations educate staff about discrimination so differences are actively embraced, respected

Step 4
Competitive Advantage
Diversity promoted as management strategy
Evolution from respect for differences to organizational reform as part of strategy to forge varied strengths into competitive advantage

Deepening Diversity Management

Hitachi Group Diversity Structure

Hitachi, Ltd. President

Advisors: External directors

Advisory Committee:
Chief Human Resource Officer (CHRO)
Executive officers and general managers in charge of personnel affairs and labor administration in Group companies
General managers in charge of personnel affairs and labor administration in business units

Diversity & Inclusion Development Center
(dedicated organization)
Human Capital Group

Hitachi Group Diversity Development Council
Section managers in charge of personnel affairs and labor administration in Group companies, business units, and business groups/sites

Organizations and projects at companies and business groups/sites to advance diversity (including issues related to women in workplace)

Around 50 projects

* Participating enterprises (15 companies as of March 2019): Hitachi Metals, Hitachi Chemical, Hitachi Capital, Hitachi Construction Machinery, Hitachi High-Technologies, Hitachi Transport System, Hitachi Urban Investment, Hitachi Appliances, Hitachi Automotive Systems, Hitachi Consumer Marketing, Hitachi Industrial Equipment Systems, Hitachi Systems, Hitachi Solutions, Hitachi Insurance Services, Hitachi Life

KPIs to Develop Women's Careers

Objectives, Activities, and Achievements

Hitachi, Ltd. has created two key performance indicators (KPIs) to enable as many female employees as possible to take up leadership positions and to participate in management decision making.

In fiscal 2013, Hitachi set a goal of promoting women to executive positions by fiscal 2015. In April 2015, the company appointed its first female corporate officer, a position equivalent to the executive level. We will continue to promote this goal to ensure that diverse views and values will be reflected in our management. In fiscal 2017, we publicly announced our commitment to increasing the rate of female executive and corporate officers to 10% by fiscal 2020.[1] We are also working to promote more female employees to managerial positions, aiming to double the

number of female managers to 800 by fiscal 2020 compared with fiscal 2012. These efforts demonstrate our commitment both internally and to the world to further advance women in the workplace and improve our diversity management.

In addition to reinforcing existing programs, we will use the Hitachi Group Women's Career Success Survey to highlight progress with initiatives and outstanding issues in each business division and to set numerical targets for each division, strengthening our management commitment. We will also boost women's individual ambitions and morale through programs such as the Hitachi Group Women Leaders' Meeting, which targets female employees at the supervisory level and above, and the Roundtable Conference with Female Outside Directors. We intend to create an environment where as many women as possible are able to optimize their potential in management positions. Alongside these efforts, we are working to change the mindset of managers and male staff regarding gender parity and examining our working style as a whole with the aim of transforming our corporate culture.

Employee compensation is set according to each individual's roles and achievements, with no divisions or differences based on gender or age.

*1 As another goal, Hitachi aims to achieve a 10% ratio of non-Japanese executive and corporate officers by fiscal 2020.
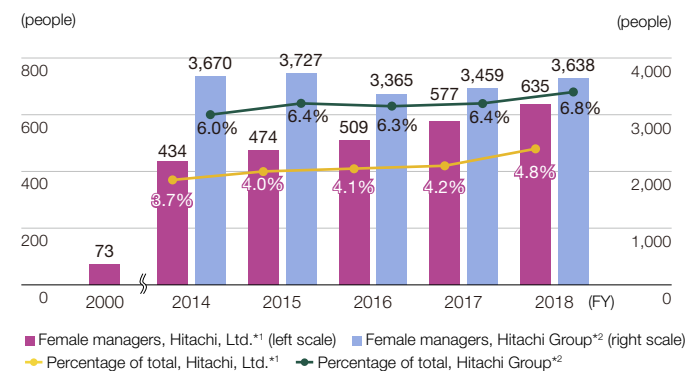

Goals for Hitachi, Ltd. (KPIs)

- Achieve a 10% ratio of both female and non-Japanese executive officers and corporate officers by fiscal 2020 (new goal established in fiscal 2017).
- Increase the number of female managers in Japan to 800 by fiscal 2020 (twice the number at the end of fiscal 2012; goal revised in fiscal 2017).

Hitachi's Diversity Goals

● Number and Ratio of Female Managers ⊘

■ Female managers, Hitachi, Ltd.*1 (left scale)   ■ Female managers, Hitachi Group*2 (right scale)
━ Percentage of total, Hitachi, Ltd.*1   ━ Percentage of total, Hitachi Group*2

Note: Figures include section managers and above.
*1 Since fiscal 2017, "Female managers" has included managerial employees dispatched from Hitachi, Ltd. to other companies and those accepted from other companies by Hitachi, Ltd. Earlier figures include regular managerial employees dispatched to other companies but exclude those accepted from other companies.
*2 All full-time, regular female managers excluding those dispatched to non-Group companies.

Ratios for Female and Non-Japanese Executive and Corporate Officers (Hitachi, Ltd.) ⊘

	June 2017	June 2018	June 2019
Number of female executive and corporate officers	2	2	4
Ratio of female executive and corporate officers	2.4%	2.6%	5.0%
Number of non-Japanese executive and corporate officers	3	5	7
Ratio of non-Japanese executive and corporate officers	3.7%	6.4%	8.8%

Ratios for Male/Female and Japanese/Non-Japanese Directors (Hitachi, Ltd.) (as of June 2019)

Item		Total	Male	Female	Japanese	Non-Japanese
Directors	Number	11	9	2	7	4
	Ratio (%)		81.8	18.2	63.6	36.4

Basic Salary and Total Individual Compensation for Female and Male Managers at Hitachi, Ltd. (Fiscal 2018)

Basic Salary	Total Individual Compensation
100 : 103	100 : 105

Note: Benefits for men and women are identical. Differences between male and female salary and compensation are due to age distribution, grade distribution, etc.

Global Women's Summit

In October 2018, we hosted our third Global Women's Summit with the theme "Leading Through Diversity & Inclusion." Held in Singapore, the event was attended by around 170 female employees from Group companies in 17 countries and regions around the world, from junior staff to executives, and featured a keynote speech by an external speaker and messages from President and CEO Toshiaki Higashihara and outside director Cynthia Carroll. There was also a lively exchange of opinions at a panel discussion among female leaders from the Hitachi Group, and three different workshops on unconscious bias, career development, and leadership. A subsequent networking reception gave the participants an opportunity to share stories about their careers and the challenges at their workplace and deepen mutual relationships. At this Global Women's Summit, not only did the participants realize a range of challenges, but they also gained a better understanding of the Hitachi Group's firm commitment to diversity and inclusion initiatives and of diversity management by the executives. The next summit, the fourth, is scheduled to be held in Tokyo in fiscal 2019.

Recruiting Local Human Capital for Senior Management Positions

The railway business is an important business field for which growth is expected in overseas markets, particularly Europe and Asia. To further solidify our position in this industry, we shifted the primary site of our railway business to London in 2014 and built a global operations framework managed by Hitachi, Ltd. and several other Group companies, with 40% of senior management positions held by European personnel. The CEO of global operations is a London local who previously served as president of a Group company in the United Kingdom and has since become an executive officer at Hitachi, Ltd. as well. Our railway business is a crucial one, driving Hitachi's growth, and we have grown it steadily through M&A and other strategic activities.

Global Recruiting and Globalizing Human Capital

As a means of developing markets worldwide, we have been accelerating the globalization of human capital in Japan through three initiatives: (1) recruiting "global business personnel" who can promote global operations, (2) providing younger Japanese employees with experience outside Japan, and (3) providing globally unified management training.

Given the globalization of our business, our hiring activities are designed to secure the right personnel. In principle, we categorize all employees graduating from universities and technical colleges as global business personnel who can contribute to driving our global operations. Our priority in employing such personnel is to attract those who are eager to build their foreign language skills and relish the challenge of working in different cultures, social settings, and work environments.

Expanding Hiring of People with Disabilities

Hitachi, Ltd. and Group companies in Japan have worked hard to employ people with disabilities, such as by holding a special hiring fair and study meetings for Group companies to share information. We have also worked to expand the range of employment opportunities for people with disabilities, coordinating with special subsidiaries to develop new positions for such individuals in IT—specifically, robot process automation (RPA). As a result, as of June 2019 the employment ratio of people with disabilities was 2.26% ✓ at Hitachi, Ltd.[1] and 2.33% for the entire Group in Japan. Both of these figures exceed Japan's legally required employment rate of 2.2%. We will maintain our Group-wide drive to hire more people with disabilities.

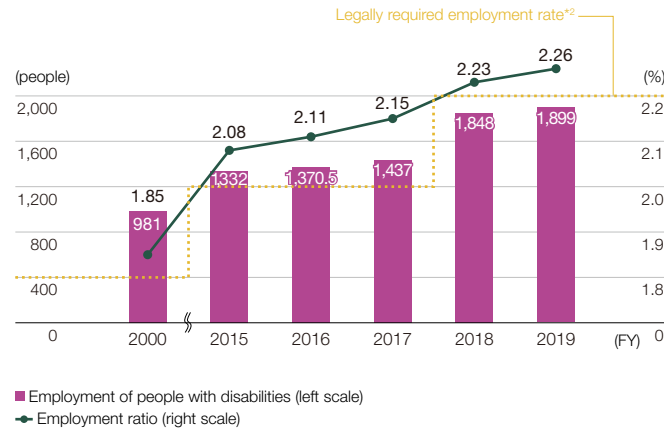[1] Includes two special subsidiaries and 17 related Group companies.

Work-Life Management

• Employment of People with Disabilities and Employment Ratio (Hitachi, Ltd.*[1])

*1 Includes special subsidiaries and related Group companies. (Two special subsidiaries and 17 related Group companies in fiscal 2019.)
*2 The legally required employment rate was 1.8% up to fiscal 2012, 2.0% between fiscal 2013 and 2017, and became 2.2% in fiscal 2018.
Notes:
• Data compiled in June 1 of each fiscal year.
• The employment ratio is calculated according to methods prescribed in the relevant laws.

### B-BBEE Initiatives in South Africa `Policy`

As Hitachi expands its business in South Africa, it pursues activities aligned with the country's Broad-Based Black Economic Empowerment (B-BBEE)*[1] policies to create employment and economic development. As of the end of fiscal 2018, Hitachi Vantara has achieved a B-BBEE rating of level 4, while Hitachi Construction Machinery Southern Africa has reached level 8.

*1 B-BBEE: Companies and organizations in South Africa are scored on their B-BBEE initiatives and contributions and rated on a scale from level 1 (highest) to 8 or as being "non-compliant."

Hitachi's Work-Life Management Approach `Policy`

The aim of Diversity & Inclusion is to maximize our employees' performance, and to enhance our organizational capabilities as well as to create new synergies, thereby improving productivity and expanding our business. It is necessary to have a comfortable working environment that embraces flexible and diverse workstyles, allowing our diverse workforce to perform at their best.

Hitachi has built on its work-life balance initiative, which promoted a balanced lifestyle, and now promotes work-life management, which encourages employees to proactively take charge of improving the quality of both their work and private lives. We believe that practicing work-life management will enrich employees' work and private lives, enhance professionalism and build personal character, resulting in both individual and organizational growth over the long term.
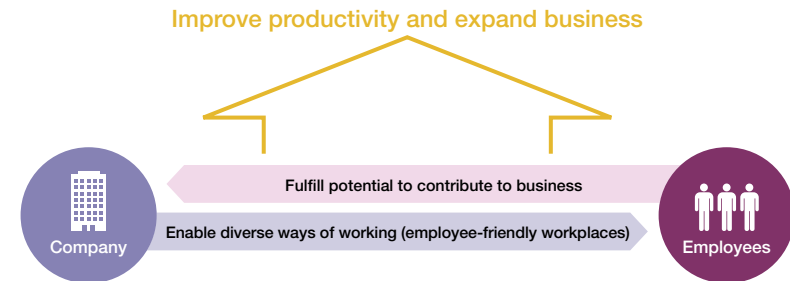
Hitachi's Work-Life Reform Approach `Policy`

In December 2016, Hitachi, Ltd. launched a companywide work-life reform initiative, "Hitachi Work Life Innovation," to promote workstyles allowing talent from diverse backgrounds to work with enthusiasm and demonstrate strong performance.

Hitachi seeks to expand its Social Innovation Business, which aims to resolve its customers' and society's increasingly diverse and complex challenges, and to improve people's quality of life on a global scale. In order to realize this, we need to have talented, active human capital with diverse values.

With the decline in the working-age population due to low birthrates and aging, as well as workers' diversifying needs, work-life reform is a pressing issue across all of Japan. We too are striving to realize our vision of Hitachi's future by promoting work-life reform.

Framework for Work-Life Reform Frameworks and Systems

Under the Hitachi Work Life Innovation initiative, labor and management at Hitachi, Ltd. work together to realize work-life reform. In the 2018 spring labor-management negotiations, it was decided to promote time- and location-independent working practices, and we are moving forward creating systems and working environments in which employees can continue producing results while maintaining work-life balance.

In order to put work-life reform into practice, it was determined that reform of administrative operations at the company's headquarters was necessary. Based on requests from business units and departments and other considerations, Hitachi created three subcommittees to review both its headquarters' business operations and processes that affect the whole company: the Budget Innovation Subcommittee, the Internal Audit Innovation Subcommittee, and the Meeting/Reporting Innovation Subcommittee.

In 1999, Hitachi implemented telecommuting and satellite office work programs. Today, 70% of all full-time, regular employees are covered, including managerial-level employees, flex workers, and career-track employees who need to balance work with child care or nursing care. The programs do not require the applicants to come into the office for a certain amount of time, nor are there any limitations on the number of times for doing so, allowing employees to work from wherever they need to be for child care, nursing care; or, if posted away from their families, they can work from their family home. We are also rolling out location-free work for managerial-level employees, allowing them to perform their duties from anywhere when approved by the company. Security environments equivalent to the company's are being prepared at multiple business sites in the Tokyo metropolitan area as we expand our satellite office facilities for the use of business units, departments, and Group companies.

Work-Life Reform Initiatives Objectives, Activities, and Achievements

Hitachi, Ltd. is currently addressing work-life reform in three areas: improving work processes, augmenting management, and promoting time- and location-independent work practices.

Regarding improving work processes, the Meeting/Reporting Innovation Subcommittee has reduced meeting time by about 60% by cutting down on the number and duration of regular meetings attended by business units and general meetings. It has also begun using a support tool designed to improve meeting efficiency and optimize meeting durations and numbers of participants.

On augmenting management, the company is increasing operational transparency using in-house consultants and an experience-oriented approach to discover issues. Countermeasures are taken and results are being produced. In fiscal 2017, the experience-oriented approach was applied to about 80 teams prone to excessive working hours, resulting not only in fewer overtime hours but also improvements in such areas as collaboration among team members and work instructions from team leaders to staff. In fiscal 2018, the initiative was scaled up to about 260 teams. The company is also improving its attendance management system for compliance enforcement.

As for promoting time- and location-independent work practices, the company is promoting use of its telecommuting program and has distributed around 30,000 IT tools such as headsets, mic speakers, and LCD monitors to create environments where the in-house wireless local area network (LAN) can be accessed safely, as well as holding paperless and online meetings. Since 2016, we have been expanding the number of our satellite offices, and as of March 31, 2019, we have 49 business sites used by more than 50,000 people from across the Group each month.

Additionally, in July 2018, some 2,750 employees participated in Telework Days 2018, a national event sponsored by the Ministry of Internal Affairs and Communications to promote work-life reform.

Work-Life Innovation Initiatives at Hitachi, Ltd.

| Items	Key components
Top commitment	• Send top commitment message within company
Improving work processes	• Reform headquarters' administrative operations • Impose restricted-hour rules for outgoing emails
Augmenting management	• Increase operational transparency using in-house consultants (experience-oriented approach) • Improve attendance management system for compliance enforcement
Promoting time- and location-independent work practices	• Expand telecommuting program to allow locations where employees need to be for child care, nursing care, etc., as well as their homes • Roll out location-independent work for managerial-level employees • Expand satellite offices (49 sites as of March 2019, with over 50,000 monthly users across the entire Hitachi Group) • 2,750 people participating in Telework Days
Companywide promotion	• Put up posters, create intranet site • Share best practices by giving awards

Enhancing Work-Life Management Support Systems

Frameworks and Systems

Since the 1990s, Hitachi, Ltd. has been introducing and expanding an array of programs to support work-life balance, striving to create a more friendly working environment.

Following the introduction of our Allowance for Balancing Child Care and Work in fiscal 2016, in fiscal 2018, we launched "Hokatsu Concierge," the information-providing service supporting the search for a nursery. With the rise in nursery schools' waiting lists being a social issue, by providing this kind of support, the aim is to smooth the path for employees return from maternity and parental leave and create an environment where work and parenting can be balanced with peace of mind.

Additionally, with Japan's society continuing to age, it is expected that more employees will be involved in caring for their elderly family members. We have, therefore, declared the years from fiscal 2018 to fiscal 2020 a period to focus on reinforcement of work and nursing care balance support, and are expanding programs. In fiscal 2018, we established a new "Points for Balancing Nursing Care and Work" system strengthening financial support for employees balancing work with nursing care. We also conducted awareness surveys and work-life balance seminars to encourage employees to prepare for this issue, emphasizing the importance of balancing work with nursing care and conveying practical know-how on the topic.

Work-Life Management Support System at Hitachi, Ltd.
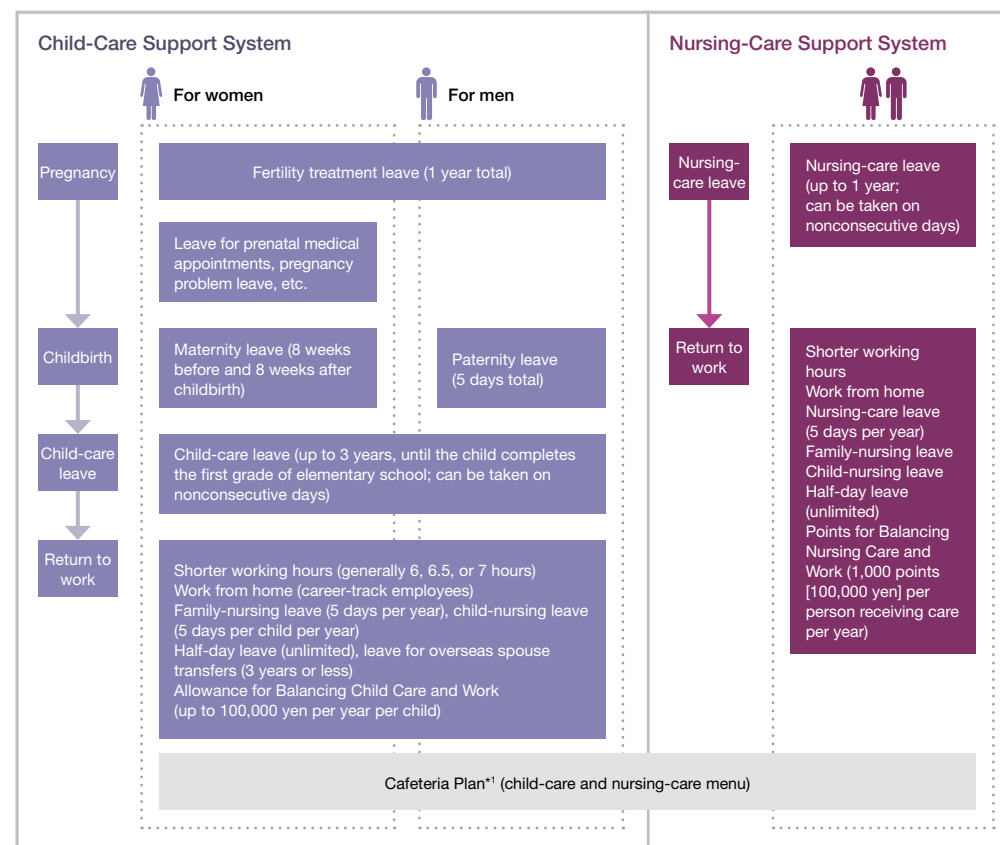
*1 Flextime and discretionary labor systems are also available. The Cafeteria Plan is a system in which employees can select the support that they need, when they need it, according to their "Cafeteria Points."

Return and Retention Rates After Maternity and Child-Care Leave (Hitachi, Ltd.)

		FY 2018
Return rate (%)	Male	94.3
	Female	97.4
Retention rate (%)	Male	90.9
	Female	99.4

In-House Child-Care Centers

Hitachi, Ltd., in collaboration with its labor union, has set up in-house child-care facilities as a way to support employees in balancing work with child care.

"Genki Club" logo.

Genki Club

Established	April 2003
Location	292 Yoshida-cho, Totsuka-ku, Yokohama-shi, Kanagawa, Japan (Yokohama Office, Hitachi, Ltd.)
Capacity	Approximately 70 children
Ages eligible	Children aged several months up to 6 years old (who have not yet entered elementary school) of Hitachi Group employees who live near or commute to the Totsuka area in Yokohama
Operating hours	7:30–20:00

Excursion (sweet potato digging).

Christmas party.

Sakura Hiroba (Hitachi Chemical Group)

Established	April 2008
Location	2-27-22 Higashi-cho, Hitachi-shi, Ibaraki, Japan (near Yamazaki Division, Hitachi Chemical)
Capacity	23 children
Ages eligible	Children aged several months up to 6 years old (who have not yet entered elementary school) of Hitachi Chemical Group employees
Operating hours	7:20–20:20

Support Systems that Meet Diverse Employee Needs

To respond to the diverse lifestyles and needs of our employees, Hitachi, Ltd. has provided a wide range of support by introducing benefits that include housing support, such as dormitories, company housing, and a housing allowance system, as well as group insurance, a consolation payment system, internal sales, cultural and physical education activities, and employee cafeterias.

Full-time, regular employees of Hitachi, Ltd. also enjoy an asset-building savings program, an employee stock ownership program, a Cafeteria Plan program, allowances for balancing work with child and nursing care, and retirement and pension plans.

The Cafeteria Plan allows employees to select the benefits they receive, depending on individual lifestyles and needs, from a list of options, such as skills development, child care, nursing care, health promotion, and donations. Employees can use their Cafeteria Points to select the type of support they need when they need it.

For our retirement and pension plans, defined contribution and defined benefit plans have been introduced across the Hitachi Group in response to the diversification of lifestyles among the elderly and the changes in forms of employment.

Enhancing Work-Life Management Support Systems

Creating Friendly Working Environments in China

In fiscal 2018, Hitachi (China) supported its employees' work-life balance with leisure activities such as outdoor experiences, health seminars, photography contests, and a healthy walking meet. Hitachi (China) has also signed a female employee special protection agreement to protect its female employees. The agreement is reviewed every three years to take current circumstances into account, and has resulted in the enhancement of facilities for women based on the agreement, such as building a milk expression room for lactating female employees. In addition to this, the company is developing systems such as medical relief grants and compassion fund to help employees facing difficulties.

Occupational Health and Safety

Basic Principle for Occupational Health and Safety

Ensuring the health and safety of all employees is the basic principle underlining the Hitachi Group Health and Safety Policy, which is shared by all Hitachi Group companies around the world. Employees work together to create healthy, safe, and secure work environments that aim to be accident free.

Hitachi Group Health and Safety Policy
"Health and Safety Always Comes First."
Policies
In accordance with our mission, "Contribute to society through the development of superior, original technology and products," the Hitachi Group will endeavor to ensure safe and healthy workplaces under the principle of "Health and Safety Always Comes First."

To accomplish this, we will:
1. Continually be involved in health and safety activities in order to prevent work-related injuries and sickness by designating the health and safety of employees as management's top priority.
2. Comply with the local laws and regulations in each company regarding health and safety.
3. Develop a safe and comfortable work environment by encouraging employees to maintain their own health and taking a proactive stance on health and safety activities in the workplace.
4. Require an understanding of Hitachi's principle and the promotion of health and safety awareness from all business partners of the Hitachi Group.
5. Contribute to the creation of a safe and pleasant society by emphasizing activities that make health and safety a top priority in all of Hitachi's business activities.

Revised November 2013

Establishing the Safety Management Division

In April 2019, aiming to become an organization whose employees spontaneously promote safety activities with the direct participation of management, Hitachi, Ltd. established the Safety Management Division, which reports directly to the president on matters of safety management. This division will hold an annual Safety Strategy Congress, attended by safety officers from each Group company and representatives from each division. The congress will set budgets and objectives for companywide safety strategy and review the structural situation of the Hitachi Group's safety management systems, making them an opportunity for top management to share its own commitment to safety as the highest priority. The Safety Strategy Promotion Council, attended by safety department managers from each business unit and Group company, is held monthly and examines the promotional frameworks for safety activities and education in each division alongside standards to be shared across the Group.

Safety Management Framework
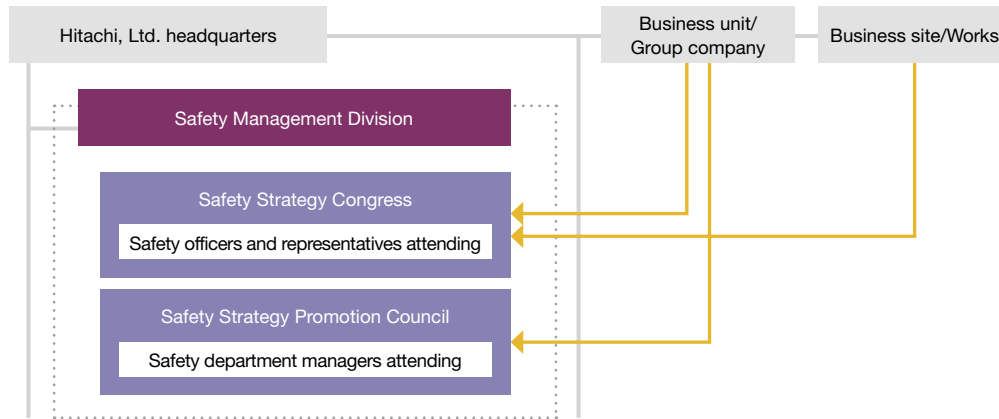
Initiatives for Preventing Work-related Accidents

`Frameworks and Systems` `Objectives, Activities, and Achievements`

Hitachi views occupational health and safety as vital employment conditions for advancing its business. Based on the policy above, to prevent work-related accidents among our roughly 300,000 Group employees worldwide, we set and apply our own safety standards to be observed at manufacturing sites around the globe, where the risks of work-related accidents are high, as well as advancing health and safety measures tailored to the operations of individual companies. In particular, since the establishment in April 2019 of the Safety Management Division, we have worked to improve our safety measures in terms of both policy, by examining and improving our risk assessment frameworks, and technology, by using IT and digital technology to prevent accidents.

We had already introduced the Hitachi Group Key Safety Management Designation System, which promotes the improvement of safety measures and reinforcement of safety activities at Hitachi Group companies and business sites that have experienced serious work-related accidents. Under the leadership of top executives, these companies and business sites take on both

management-driven and bottom-up initiatives to formulate specific plans, and the progress of these plans is monitored by safety officers, who also lead initiatives to prevent recurrence.

Additionally, because the risk of accident is higher for workers not yet accustomed to their work or environment, employees and temporary workers receive individual health and safety training and on-the-job training before work begins, to help prevent accidents by ensuring that they understand work procedures and dangers. At the same time, on occasions of business restructuring, we share the details of the health and safety management frameworks and initiatives of the organizations to be merged in advance, and, paying all due respect for the safety cultures on both sides, ensure that safety is always preserved during the execution of a smooth business launch.

Sharing and Using Information to Prevent Accidents

`Frameworks and Systems`

Since 2012, the Hitachi Group Health and Safety Portal System has allowed every Hitachi Group company in Japan to track the occupational health and safety performance of the entire Hitachi Group.

When a work-related accident occurs in Japan, depending on its level, the results of analysis on its causes and examples of countermeasures are registered in the system and shared with the entire Group as part of the knowledge base. Know-how gained in this way is used globally. By analyzing from many angles the detailed information about accidents gathered in the system, similar accidents can be prevented. In 2014, we also began surveying the number of accidents outside Japan in order to grasp the global situation regarding accidents. We intend to expand the use of the Hitachi Group Health and Safety Portal System globally in future.

Since 2018, in order to promote the management-driven reinforcement of Group-wide occupational health and safety activities, the state of occupational health and safety management has been reported regularly to the Senior Executive Committee and meetings of business unit and Group company presidents.

Additionally, the Safety Strategy Congress for safety officers from each Group company and representatives from each division has so far seen around 350 attendees in all. Activity promoters
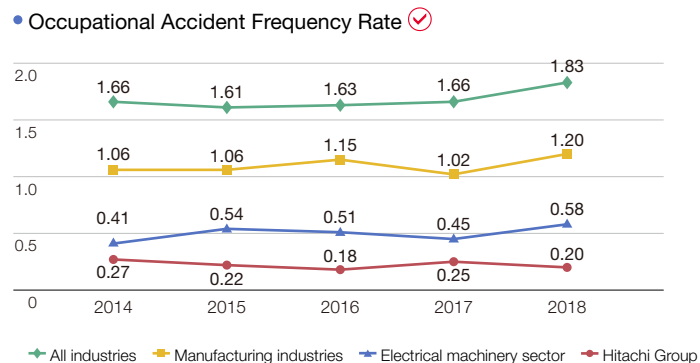
from all areas have shared information and exchanged opinions about policy details, allowing the congress to serve as a forum for discussion of Group-wide initiatives.

Actions and Achievements

In Japan, a health and safety commission—composed of business owners, labor union officials, and employees—is convened at each business site every month to discuss and share information related to such issues as work-related accident cause analysis and countermeasures and health and safety activities in light of the situation regarding employees who have taken sick leave.

This initiative allowed us to achieve zero fatal work-related accidents worldwide in 2018, but we have not yet eliminated accidents altogether. Taking an honest view of our present situation, we are continuously striving to improve our safety management system, making use of external consultants to bring in objective, third-party perspectives, improving our ability to determine the cause of accidents, and reviewing our risk assessments.

● Occupational Accident Frequency Rate ✓

	2014	2015	2016	2017	2018
All industries	1.66	1.61	1.63	1.66	1.83
Manufacturing industries	1.06	1.06	1.15	1.02	1.20
Electrical machinery sector	0.41	0.54	0.51	0.45	0.58
Hitachi Group	0.27	0.22	0.18	0.25	0.20

Notes: Occupational accidents are defined as those involving fatality or work-time loss of one day or more. Hitachi Group figures for Japan, including Hitachi, Ltd., are for 251 Group companies in 2014; for 240 Group companies in 2015; for 200 Group companies in 2016; for 201 Group companies in 2017; and for 188 Group companies in 2018.

Hitachi Group's Global Safety Figures (Occurrence Rate[*1])

	2016	2017	2018
North America	27.65	24.33	27.96
Central and South America	2.33	1.62	0.44
Europe	10.70	10.82	6.08
India	2.07	1.44	1.44
China	1.59	1.53	1.46
Asia (excluding India, China, and Japan)	5.43	4.41	3.34
Oceania	39.07	24.41	21.94
Africa	17.26	9.93	11.76
Overseas total	7.76	7.42	7.43
Japan	1.57	1.85	1.64
Global total	3.95	4.22	4.20

*1 Occurrence rate is the rate of work-related accidents per 1,000 directly contracted employees resulting in fatality or work-time loss of one day or more.

Approach to Improving Employee Health

Hitachi believes that health is the foundation for employees being able to work with energy and peace of mind. The basic principle of the Hitachi Group Health and Safety Policy, shared by all Group companies globally, is that "Health and Safety Always Comes First." Based on this principle, we strive as one to create working environments that allow workers to do their jobs without anxiety over their mental or physical health. In particular, within Japan, we are promoting support for identifying employees struggling with physical and mental issues, not just work-related but also private, and work with the Health Insurance Society to promote the individual support provided to each employee.

Hitachi Group Health and Safety Policy

Framework for Promoting Health and Productivity Management

In Japan, occupational healthcare workers, human resources divisions, and the Health Insurance Society work together to promote a range of health support and appropriate health management in accordance with Japan's Industrial Safety and Health Act.

In Ibaraki, Tokyo, and Kanagawa Prefectures, where many Hitachi Group business sites are concentrated, a system of health-management centers has been put in place, staffed with occupational doctors, nurses, and other occupational healthcare personnel. The center promotes occupational healthcare activities unified at the regional level. In other location, occupational doctors and nurses work in cooperation with human resources divisions to maintain and improve the health of employees.

Additionally, Hitachi Group occupational healthcare workers and human resources officers provide opportunities for the qualitative improvement of occupational healthcare activities and the human capital development of occupational healthcare workers at all sites by regularly holding meetings, study groups, and training sessions to hold debates and report research results on the theme of maintaining and improving the health of employees.

Raising Health Awareness in Conjunction with Work-Life Reform

Hitachi is conscious of the importance of employee health and the health of their families as the foundation of employee self-development in both their private and working life. This thinking has been refined within the concept of our "Hitachi Work Life Innovation" activities so that both the company and its employees can work to implement work-life management and improve their productivity with shared awareness of the importance of health.

Hitachi Work Life Innovation
Diverse individual workstyles will build a creative future

The foundation of work-life balance is health

Conceptual diagram for "Hitachi Work Life Innovation" activities.

Initiatives Toward Improving Employee Health

At each Hitachi Group company in Japan, the health maintenance of employees is supported through the provision of health maintenance measures based on periodic medical exams and other examinations to prevent serious disease, as well as medical interviews and advice to prevent mental and physical disorders among employees working long hours.

We are also taking steps to improve health awareness through consultations and guidance by occupational healthcare workers that can help relieve employees' health concerns and encourage regular exercise.

In addition, we are proactively implementing the stress checks specified by law at all business sites in Japan—even those employing fewer than 50 employees, which are only required to make efforts toward compliance—to promote awareness of stress among all employees. Group analysis results from these stress checks will also be used by workplace health and safety committee members, occupational healthcare workers, and human resources divisions to improve work environments. In combination, these efforts are expected to help prevent mental health issues and revitalize workplaces.

Health committee members and healthcare workers discuss environmental improvement measures with HR staff.

Absences

(%)

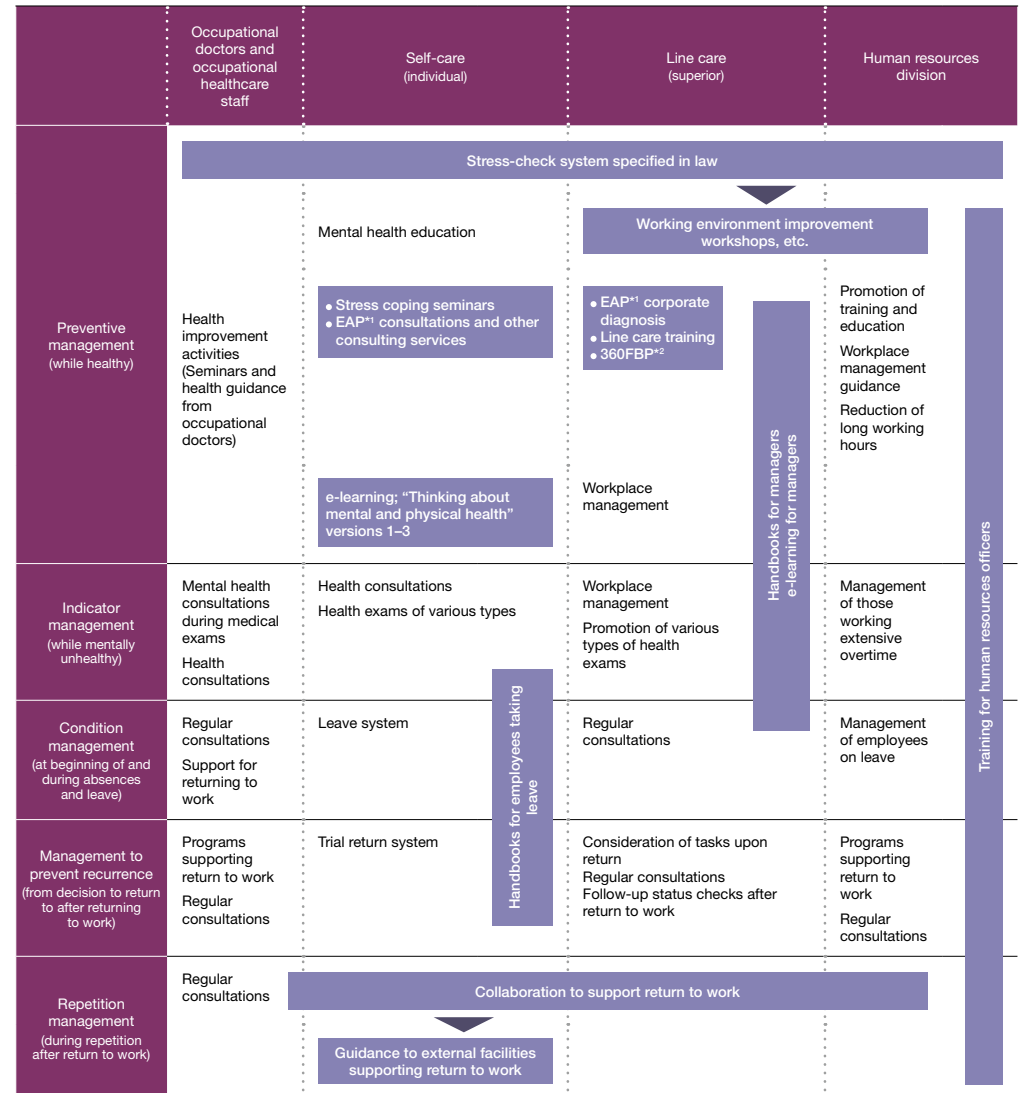|	2016	2017	2018
Mental	0.56	0.60	0.64
Physical	0.24	0.26	0.24
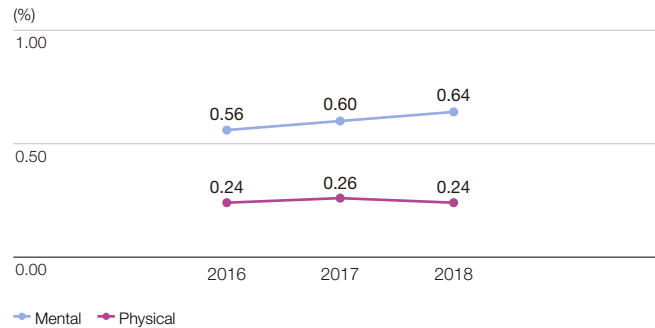
Note: Percentage of employees taking sick leave for seven or more consecutive days, or formally taking leave (Number of employees taking sick leave per month ÷ Number of employees per month × 100).

▍ Addressing Mental Health

Hitachi has established measures addressing mental health to be taken by employees, workplace managers, occupational healthcare workers, and human resources divisions, and is working to spread basic mental health knowledge and understanding of ways to deal with stress, as well as to reinforce the ability of those in each position to respond to these issues.

Initiatives Addressing Mental Health at Hitachi

	Occupational doctors and occupational healthcare staff	Self-care (individual)	Line care (superior)	Human resources division
Preventive management (while healthy)	Health improvement activities (Seminars and health guidance from occupational doctors)	Mental health education — • Stress coping seminars • EAP*1 consultations and other consulting services — e-learning; "Thinking about mental and physical health" versions 1–3	Working environment improvement workshops, etc. — • EAP*1 corporate diagnosis • Line care training • 360FBP*2 — Workplace management	Promotion of training and education — Workplace management guidance — Reduction of long working hours
Indicator management (while mentally unhealthy)	Mental health consultations during medical exams — Health consultations	Health consultations — Health exams of various types	Workplace management — Promotion of various types of health exams	Management of those working extensive overtime
Condition management (at beginning of and during absences and leave)	Regular consultations — Support for returning to work	Leave system	Regular consultations	Management of employees on leave
Management to prevent recurrence (from decision to return to after returning to work)	Programs supporting return to work — Regular consultations	Trial return system	Consideration of tasks upon return — Regular consultations — Follow-up status checks after return to work	Programs supporting return to work — Regular consultations
Repetition management (during repetition after return to work)	Regular consultations	Collaboration to support return to work — Guidance to external facilities supporting return to work		

Stress-check system specified in law

Handbooks for managers / e-learning for managers

Handbooks for employees taking leave

Training for human resources officers

*1 EAP: Employee Assistance Program.
*2 360FBP: 360-degree Feedback Program.

Health Promotion Initiatives for Employees and Their Families

To encourage healthy lifestyles among employees and their families, the Hitachi Health Insurance Society has established a portal site for individuals entitled "My Health Web."

By providing information on health exam results and a system of incentive points allowing employees to receive rewards for entering health-related activities, the site raises health awareness, helps employees understand the state of their own health, and offers a range of support for adopting a healthier lifestyle.

Health portal site "My Health Web."

Promoting Collabo-Health*1

As well as carrying out individual health improvement initiatives according to their own unique characteristics, Group companies in Japan strive to maintain and improve the health of employees by taking full advantage of the services offered by the Health Insurance Society. Initiatives are

evaluated on an annual basis, with recognition of the most accomplished companies and business sites within the Group heightening the motivation among business owners and employees to pursue such activities.

We are also actively engaging with the Certified Health and Productivity Management Organization Recognition Program promoted within Japan. In February 2019, the program granted recognition to 21 Group companies in the large enterprise category and 27 in the SME category.

*1 Collabo-Health: A concept involving insurers like the Health Insurance Society proactively working with business owners, with a clear division of labor and a good working environment, to effectively and efficiently improve the health of insured persons (employees and their families), including with preventive strategies.

Health events at business sites.

Logo marks for the 2019 Certified Health and Productivity Management Organization Recognition Program's large enterprise (left) and SME (right) categories.

Encouraging Employees to Receive Medical Exams and Vaccinations

In Japan, Hitachi has established a system offering financial support for medical exams by the Health Insurance Society, and encourages employees aged 35 and over in particular to receive the general physical and other exams specified in law, as well as targeted screening based on their age, in order to promote early diagnosis and treatment.

Furthermore, as a response to metabolic syndrome, in addition to special health guidance made compulsory for the Health Insurance Society, we actively promote policies to prevent and control conditions such as diabetes, cerebral strokes, and myocardial infarctions. Additionally, each year on May 31, World No Tobacco Day, we run an anti-smoking campaign aimed at employees.

To prevent employees from infectious diseases at overseas destinations, the Health Insurance Society has established financial support frameworks for vaccinations against conditions such as hepatitis A, tetanus, and cholera, as well as flu vaccinations for employees and their families to prevent the flu spreading in workplaces. As an initiative to prevent employees falling ill or suffering from serious conditions, we encourage vaccination in the early stage of each illness's spread. These programs are used by around 120,000 employees and family members each year.

Medical Exam and Screening Attendance Rates

	FY 2016	FY 2017	FY 2018
General physical exam*1	78.1%	78.5%	79.3%
Breast cancer screening*2	50.0%	51.1%	53.2%
Uterine cancer screening*3	35.3%	35.6%	37.1%
Stomach cancer screening*4	78.4%	80.7%	80.6%
Intestinal cancer screening*4	79.0%	81.4%	81.3%
Lung cancer screening*5	93.2%	92.9%	93.2%

*1 Men and women aged 35 and over.
*2 Women aged 30 and over.
*3 Women aged 25 and over.
*4 Men and women aged 30 and over.
*5 In FY 2016–2017, men and women aged 50 and over; from FY 2018, changed to men and women aged 35 and over.

Health and Safety Considerations for Nuclear Businesses

Policy | Frameworks and Systems

In 2008, Hitachi began working with the world's leading nuclear power plant vendors to develop voluntary, private principles of conduct covering the exportation of nuclear power plants and reactors. The "Nuclear Power Plant and Reactor Exporters' Principles of Conduct" were formally revealed on September 15, 2011. They were adopted by all involved in its development, and we have also indicated our adherence to them.

Regarding our employees and other persons employed at nuclear sites under the Hitachi Group umbrella, we perform exposure management based on our internal management systems, and perform evaluation of radiation damage (dose management).

For health management in particular, our management indicators for radiation exposure are stricter than those set by Japan's Ministry of Health, Labor, and Welfare. We monitor physical and mental health along with exposure dose even for employees of partner companies, and an occupational doctor from Hitachi visits sites to perform examinations and offer health advice.

Nuclear Power Plant and Reactor Exporters' Principles of Conduct

Human Rights

In order to ensure respect for human rights not just among Hitachi's employees but throughout its supply chain and among other stakeholders, Hitachi formulated the Hitachi Group Human Rights Policy, created an accompanying framework, and promotes educational and awareness-raising activities as well as the use of grievance mechanisms to address employee concerns throughout the Hitachi Group. In recent years, Hitachi has focused on human rights due diligence and continues to construct and refine systems for accurately grasping and minimizing risk. In fiscal 2018, too, we expanded our business and human rights initiatives both inside and outside Japan.

Our Impact on Society

No. of employees (consolidated)

295,941

Our Performance

Distributed CEO's human rights message to

Approx. # 258,000 employees

Respect for Human Rights Throughout the Value Chain

Hitachi Group Human Rights Policy   `Policy`

Hitachi believes that respecting human rights is our responsibility as a global company and indispensable in conducting business. To this end, in May 2013 we formulated the Hitachi Group Human Rights Policy. In this policy, we clarify our understanding of human rights as being, at a minimum, those outlined in the International Bill of Human Rights[1] and the International Labour Organization's Declaration on Fundamental Principles and Rights at Work. This policy shapes Hitachi's approach to meeting the responsibility to respect human rights, including implementing human rights due diligence[2] in line with the UN Guiding Principles on Business and Human Rights,[3] providing appropriate education to employees, adhering to laws and regulations in all the regions and countries where we operate, and seeking ways to honor the principles of international human rights when faced with conflicts between internationally recognized human rights standards and national laws.

In fiscal 2014, Hitachi added the perspective of business and human rights to its existing structures and policies and developed guidelines on human rights due diligence that explain procedures for everyday business practices. Based on these guidelines, we initiated human rights due diligence in such areas as procurement in fiscal 2015 and human resources in fiscal 2016, assessing and prioritizing the risks of human rights that Group employees and people in the supply chain are likely to confront as well as reviewing measures to reduce such risks.

We recognize the importance of risk assessment based on individual business environments, including business types and models, alongside cross-sectional risk assessment at the Group level. Accordingly, in fiscal 2018 we assessed and prioritized human rights risks at some business units and Group companies and laid the groundwork for a mid-term action plan.

We will continue to incorporate the results of human rights due diligence assessments into the specific measures we take regarding CSR procurement and human resources, as well as promoting human rights due diligence across the Group.

*1 International Bill of Human Rights: Collective name for the Universal Declaration of Human Rights and International Covenants on Human Rights adopted by the United Nations.
*2 Human rights due diligence: An ongoing process to identify and assess potential and actual human rights negative impacts, take appropriate action to prevent or mitigate potential impacts, track the effectiveness of actions to address impacts and communicating externally.
*3 UN Guiding Principles on Business and Human Rights: Included in the March 2011 "Report of the Special Representative of the Secretary-General on the issue of human rights and transnational corporations and other business enterprises, John Ruggie" (A/HRC/17/31).

🖱 Hitachi Group Codes of Conduct

🖱 Hitachi Group Human Rights Policy

▌Respect for the Rights of Children

Hitachi respects the rights of children as outlined in the United Nations Convention on the Rights of the Child, adopted by the General Assembly in 1989, and the Children's Rights and Business Principles developed by the United Nations Children's Fund (UNICEF). We strive to eliminate child labor in the Group and its supply chains as specified in the Hitachi Group Codes of Conduct. We have also set forth in other relevant internal regulations our policy of respecting human rights, including the rights of children.

⬆ Hitachi Group Codes of Conduct

⬆ Work-Life Management

⬆ Applying Advertisement Guidelines

Framework for Human Rights

Hitachi, Ltd. established the Corporate Human Rights Promotion Committee in fiscal 1981 to gauge the impact of business activities on stakeholders' human rights and to deliberate on mechanisms and policies for preventing human rights violations. The executive officer in charge of human capital chairs this body, whose members include representatives from sales, procurement, human resources, CSR, and other corporate units. Hitachi is improving its Group-wide human rights awareness based on the guidelines discussed and written by the Corporate Human Rights Promotion Committee. Policies decided through these deliberations are shared with business unit and business site committees, led by business unit presidents and division heads. Each business site provides consultation services through which employees can seek consultation on issues such as sexual harassment and works to ensure that those who come forward are treated with respect and dignity.

As a result of initiating human rights due diligence in our human resources divisions, we reconfirmed the importance of grievance mechanisms. Not only do such mechanisms encourage employees to express concerns over working environments, they also help Hitachi grasp and identify violations of human rights and prevent the recurrence of such violations. In fiscal 2018 we explored ways of streamlining grievance mechanisms based on the common requirements across the Group in accordance with international standards, and from fiscal 2019 we will begin the process of rolling out changes globally.

In a practice launched in fiscal 2014, we distribute a human rights message by President and CEO Toshiaki Higashihara every year on December 10, Human Rights Day. In fiscal 2018, approximately 258,000 executives and employees at Hitachi, Ltd. and Group companies in and outside Japan received an e-mail message regarding global trends in human rights, Hitachi's human rights policy and activities, and the importance of individual employees respecting human rights in their work.

⬆ Compliance Reporting System

Hitachi, Ltd. Framework for Promoting Respect for Human Rights

Corporate Human Rights Promotion Committee

Chairperson	Executive officer in charge of human capital
Vice-Chairperson	Executive officer in charge of legal affairs and risk management
Members	Personnel in charge of corporate divisions such as sales, procurement, human resources and CSR

Business Unit and Business Site Committee

Chairperson	Business unit presidents and division heads
Members	Division managers

Business Unit and Business Site Committee

Chairperson	Business unit presidents and division heads
Members	Division managers

Business Unit and Business Site Committee

Chairperson	Business unit presidents and division heads
Members	Division managers

Raising Human Rights Awareness Among Executives and Employees

Objectives, Activities, and Achievements

Hitachi conducts regular group training and seminars and uses videos to educate employees in each business site and Group company. The target is for each employee to attend these sessions at least once every three years (equivalent to a yearly participation rate of 33.3%). In fiscal 2018, the participation rate came to 66.3% at Hitachi, Ltd. and 49.3% among Group companies. We provide employees at the levels of section manager and above with education for creating a workplace free from harassment. In addition to these group sessions, we launched an e-learning program on business and human rights in October 2016, in which a total of more than 200,000

Group executives and employees globally had participated by March 2019. Using educational materials developed in line with the Hitachi Group Human Rights Policy, adopted in May 2013, the program aims to ensure that employees understand Hitachi's human rights policy and act accordingly. In accordance with these goals, the training is provided to all employees once every three years on average and regularly revised based on human rights trends worldwide.

Executive officers from Hitachi, Ltd. participate in annual officer training sessions on human rights. In July 2018, 32 executive officers participated in a session titled "From CSR as an Ethics to ESG as a Strategy—Based on the Perspective of Human Rights," led by Mariko Kawaguchi, chief researcher, Research Division, Daiwa Institute of Research Ltd. The session covered a wide range of issues from an investor's viewpoint, including the importance of human rights in the new framework of international society, the global-level challenges that we face, and the background to the growing ESG investment movement.

A scene from the officer training session.

Human Rights Due Diligence Initiatives

Objectives, Activities, and Achievements

In our Hitachi Group Human Rights Policy, we pledged to develop mechanisms for and to continue the implementation of human rights due diligence. Toward that end, in fiscal 2013 some business sites launched pilot programs for human rights due diligence to identify key issues that need to be clarified for Group-wide implementation while also analyzing and evaluating human rights risks in six ASEAN countries. Based on the results of these pilot programs, in fiscal 2014

we developed a document offering guidelines for implementing human rights due diligence in collaboration with the nonprofit organization Shift.

In fiscal 2015, we initiated human rights due diligence in the procurement divisions, whose activities are at risk of negatively impacting the human rights of workers in the supply chain and local communities. In fiscal 2017, we incorporated the results of human rights due diligence into the revision of our CSR procurement guidelines for suppliers while also thoroughly revising the questions on the check sheet used in supplier CSR monitoring (self-checks), to better grasp the issues related to workers' rights at suppliers as well as health and safety and the environment.

Fiscal 2016 also saw the launch of human rights due diligence for human resources divisions at Hitachi. The operations in those divisions touch on many issues connected to human rights for employees, including working hours, employee treatment, and health and safety. Human rights risks for employees were assessed and prioritized, and mitigation strategies were explored. They also investigated grievance mechanisms, analyzing existing procedures and exploring ideas for improvement. In fiscal 2018 we initiated human rights due diligence in some business units and Group companies, assessing the risks of human rights violations for each operation, prioritizing action points, and reviewing measures to reduce such risks. Going forward, Hitachi will further promote human rights due diligence across the Group.

Human Rights Due Diligence in Procurement

A scene from the human rights due diligence workshop led by Shift senior advisor, David Kovick.
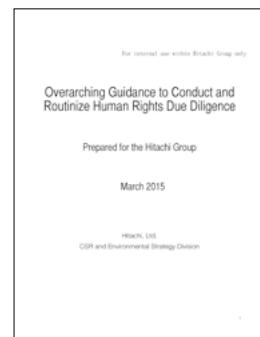
Guidance document for implementing human rights due diligence.

Addressing the Risks of Child and Forced Labor

Objectives, Activities, and Achievements

The Hitachi Group Codes of Conduct clearly express Hitachi's firm stance against the use of child labor or forced labor either in Group companies or along our supply chain. The company president's human rights message for fiscal 2017 also addressed the issues of forced labor and human trafficking, clearly stating that Hitachi as a global company must take preventive measures in its business and supply chain. Recognizing the growing risks of forced labor amid the ongoing globalization of business, Hitachi also developed an e-learning program for all Group executives and employees on the subject of human rights. The program draws on specific case studies to convey the importance of preventing forced labor and human trafficking problems before they occur.

Hitachi's CSR procurement guidelines for suppliers also clearly forbid the use of child labor or forced labor. As part of our efforts to raise awareness all along the supply chain, these guidelines are distributed to tier 1 suppliers of business units and Group companies. In fiscal 2016, a four-part webinar[*1] series was also held for employees responsible for procurement and human resources in Southeast Asia, where the risk of forced labor is expected to be higher. Speakers from nongovernmental organizations and businesses implementing advanced countermeasures were invited to lead the webinars.

In fiscal 2017, we visited one of our suppliers in Malaysia with the US nonprofit organization BSR (Business for Social Responsibility) to conduct an assessment on migrant workers, who are socially vulnerable and often said to be exploited by forced labor. The assessment was based on interviews with managers of human resources and production divisions, recruitment agencies, and migrant workers, along with inspection of the factories and dormitories.

In fiscal 2018 we assessed the risks of forced labor at about 100 offices of Hitachi Group companies located in seven Southeast Asian countries (Indonesia, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam). The assessment was conducted with the cooperation of Verité Southeast Asia (VSEA), an internationally active nonprofit organization, using a checklist for suppliers revised in fiscal 2017 based on the Responsible Business Alliance (RBA) Code of Conduct, formerly the Electronic Industry Citizenship Coalition (EICC). The results

of the assessment will be used to strengthen measures against human rights violations and improve the quality of the checklist.

*1 Webinar: A portmanteau word combining "web" and "seminar," used to refer to an interactive seminar held online.

📄 Responsible Procurement

Response to Technical Intern Training Program Issues

Objectives, Activities, and Achievements

In 2018, the Organization for Technical Intern Training conducted on-site inspections at Hitachi, Ltd. and 10 Group companies. These inspections identified violations of the Act on Proper Technical Intern Training and Protection of Technical Intern Trainees, and the relevant companies were provided with recommendations for improvement regarding intern training. Additionally, in September 2019, Hitachi, Ltd. received an order for improvement regarding the construction of its systems for carrying out proper technical intern training according to authorized plans. Companies that received recommendations or orders for improvement have already taken corrective measures. We have taken strict measures to ensure that no further violations will take place throughout the entire Group, such as constructing Group-wide policies, guidelines, and check systems for technical intern training, and we continue to strive to carry out appropriate technical intern training in accordance with relevant laws and the aims of the Technical Intern Training Program.

Freedom of Association and Collective Bargaining

Respecting the Rights of Employees

Policy

The Hitachi Group Codes of Conduct were approved by the Senior Executive Committee to specify the standards of behavior applicable throughout the Hitachi Group. It calls for the upholding of the fundamental rights of employees in line with the principles of the United Nations Global Compact.

In Japan, where labor unions are recognized, for example, we espouse the three fundamental rights of labor unions (to organize, to bargain collectively, and to act collectively) as seen in the collective agreement between the CEO of Hitachi, Ltd. and the representative of the Hitachi Workers Union. The union has 25,646 members out of a total of 40,430 employees as of October 31, 2018.

Employee-Management Dialogue

Frameworks and Systems

The relationship between employees and management at Hitachi, Ltd. and Group companies in Japan is stable with healthy ongoing dialogue. At Hitachi, Ltd., the Central Management Council, the Business Units Management Council, and the Business Sites Management Council work to enhance mutual communication between employees and management, contributing to smooth management and business development, and improving working conditions for union members.

We also hold Hitachi Group management meetings to share information and exchange views and opinions on Group business conditions among the Federation of Hitachi Group Workers Unions (FHGWU).

Group companies outside Japan also actively pursue dialogue with individual labor unions and their representatives in accordance with the laws and regulations in each country and region to deepen mutual understanding of employee working conditions and treatment as well as business conditions.

Notification of Work-related Transfers and Reassignments

Frameworks and Systems

The collective agreement between Hitachi, Ltd. and the Hitachi Workers Union states that any transfer or reassignment of an employee for work-related reasons should adequately take into consideration the situation of the employee, as well as requiring the company to promptly inform the Hitachi Workers Union of the decision. More specifically, in cases of large-scale transfers or reassignments, the company will consult with the labor union regarding the basic issues involved.

Cooperating to Improve Health and Safety

Frameworks and Systems

Hitachi, Ltd. and the Hitachi Workers Union are dedicated to improving health and safety levels through employee-management cooperation. This includes signing a collective agreement on the promotion of, among other things, health and safety mechanisms, a health and safety committee, education and training programs, and health checks for employees.

The committee works to ensure a healthy and safe work environment through initiatives that include planning and tracking health and safety activities each year, reviewing measures to prevent industrial accidents, and sharing information on whether employees have received their annual health check-ups.

Value Chain Management

As an enterprise that engages in businesses activities in many regions around the world, Hitachi pays close attention to sustainability in the value chain from its suppliers to business partners and customers. Not only do we require that all suppliers strictly follow our CSR procurement policies, we also carry out CSR monitoring (self-checks) and audits to minimize procurement risks. Additionally, as well as developing products and services that all customers can feel secure using, we disclose information in a detailed and appropriate manner. We are also taking proactive steps on privacy protections for the use of personal data, a topic of much interest in recent years.

Our Impact on Society

No. of suppliers

Approx. **30,000** companies (66 countries)

Our Performance

CSR monitoring (self-checks) of suppliers

345 companies (total of 1,510 companies since FY 2011)

Responsible Procurement

Basic Procurement Guidelines

`Policy`

We base our procurement activities on the *Hitachi Guidelines for Procurement Activities*, while sharing global supply chain issues within the Group. All Group companies follow these guidelines. The guidelines were created in line with the United Nations Global Compact and include the elimination of discrimination in employment and occupation, the rejection of all forms of child and forced labor, and environmental protection activities. Suppliers are selected strictly in accordance with the *Hitachi Guidelines for Procurement Activities*. We intend to revise these guidelines in accordance with revisions to the Hitachi Group Codes of Conduct and the new Hitachi Group Global Procurement Code.

In fiscal 2016, based on the results of the human rights due diligence performed by procurement divisions in fiscal 2015, we released the *Hitachi Group CSR Procurement Guidelines*, a full revision of the 2009 *Hitachi Group Supply Chain CSR Deployment Guidebook*. This revision incorporates the provisions of the Hitachi Group Codes of Conduct and also makes references to version 5.1 of the Responsible Business Alliance (RBA, formerly called EICC) Code of Conduct, promulgated in January 2016. The next revision is planned for fiscal 2020 or later, with the goal of enabling even more responsible procurement.

We plan to revise these guidelines regularly in the future to ensure that they always reflect the demands of global society regarding corporate supply chain management.

Guidelines for Procurement Activities

These guidelines define business transaction standards which shall be applied to all HITACHI executives and employees in connection with their activities purchasing necessary materials, products, services, and information from outside sources.

1. Overall procurement activities of Hitachi shall adhere to the "HITACHI Company Conduct Standards."
2. HITACHI shall maintain proper partnerships, mutual understanding, and reliable relationships with suppliers with a view to the long term results, giving due consideration to the following:
   (1) HITACHI shall treat all suppliers impartially and be prohibited from favoritism such as giving unfair priority to any specific suppliers.
   (2) HITACHI respects fair business dealings with suppliers and will avoid any improper act which might cause a loss to a supplier apart from normal and customary business transactions.
   (3) HITACHI shall keep suppliers' trade secrets strictly confidential and prevent them from being revealed or improperly used.
3. HITACHI develops suppliers to maintain competitiveness from a worldwide point of view, with particular attention to the following points:
   (1) HITACHI responds to all suppliers' offers sincerely, and is always willing to offer the information necessary for suppliers to compete on an even playing field.
   (2) HITACHI shall periodically check and review suppliers' performance and will consider offering more advantageous business opportunities when comparison with other resources allows.
4. Through a designated selection process, and in compliance with the standards given below, suppliers shall be evaluated by product quality, reliability, delivery, price, suppliers' business stability, technical development ability, fair and transparent information release, compliance with societies' rules, regulatory compliance, respect for human rights, elimination of discrimination in respect of employment and occupation, elimination of all forms of child and forced labor, environmental preservation activities, social contributions, good working environment, and recognition of social responsibilities with business partners.
   (1) HITACHI shall not request quotations from suppliers with whom there is no intention to enter into a future business relationship.
   (2) In accordance with specified internal procedures, the authority and responsibility for specifications, terms and conditions, and product acceptance and inspection belong to each Requester, Procurement Department, and Inspection Department.
   (3) Procurement Departments shall represent HITACHI when contracting with suppliers.
5. HITACHI members are prohibited from receiving any personal gifts or offers from suppliers.

Revised in 2009

Guidelines for Procurement Activities

Procurement Policy

CSR/Green Procurement

CSR Supply Chain Management Framework

Given the global reach of Hitachi's business, there is a growing likelihood of supply chain risks creating management problems, and the Hitachi Group is working hard to identify and mitigate these risks beforehand as much as possible.

CSR supply chain management and green procurement policies and initiatives are discussed within Hitachi's Value Chain Integration Division, which is headed by the chief procurement officer (CPO) and reports directly to the president of Hitachi, Ltd. Policies and initiatives adopted after this discussion are shared throughout the Group through the Hitachi Group CSR/BCP Procurement Committee, which includes members from business units and CSR/BCP Procurement Committees at key Group companies.

To address the issue of chemical substances in products, we have built A Gree'Net, an Internet-based green procurement system for collecting information about substances and other environment-related data from suppliers as soon as it becomes available. The goal is to manage chemicals carefully. Under this system, in the past, we encouraged suppliers to use the MSDSPlus[1]/AIS[2] reporting templates published by the Joint Article Management Promotion Consortium[3] to achieve smoother and more efficient transmission of information.

Because the reporting templates became invalid at the end of June 2018, we currently recommend the use of chemSHERPA[4]-CI/AI, a common scheme that facilitates transmission of information on chemical substances in products throughout the supply chain.

[1] MSDSPlus: A format for reporting chemical substances contained in products created by upstream companies (chemical manufacturers) for midstream companies (molded product manufacturers, etc.).
[2] AIS: A format for reporting chemical substances contained in products created by midstream companies (molded product manufacturers, etc.) for downstream companies (assembly manufacturers, etc.).
[3] Joint Article Management Promotion Consortium (JAMP): Established in September 2006 as a cross-industry promotion association of 17 companies endorsing the idea that "it is essential for the enhancement of industrial competitiveness to ensure proper management of information on chemical substances contained in articles (parts and final products), and to establish and popularize a concrete mechanism for smooth disclosure and transmission of such information in supply chains."
[4] chemSHERPA: A standard developed by the Japanese Ministry of Economy, Trade, and Industry to facilitate the management of chemical substances in products by creating a shared transmission scheme throughout the supply chain. The chemSHERPA-CI standard is applicable to chemical substances contained in chemical products and chemSHERPA-AI to those contained in molded products.
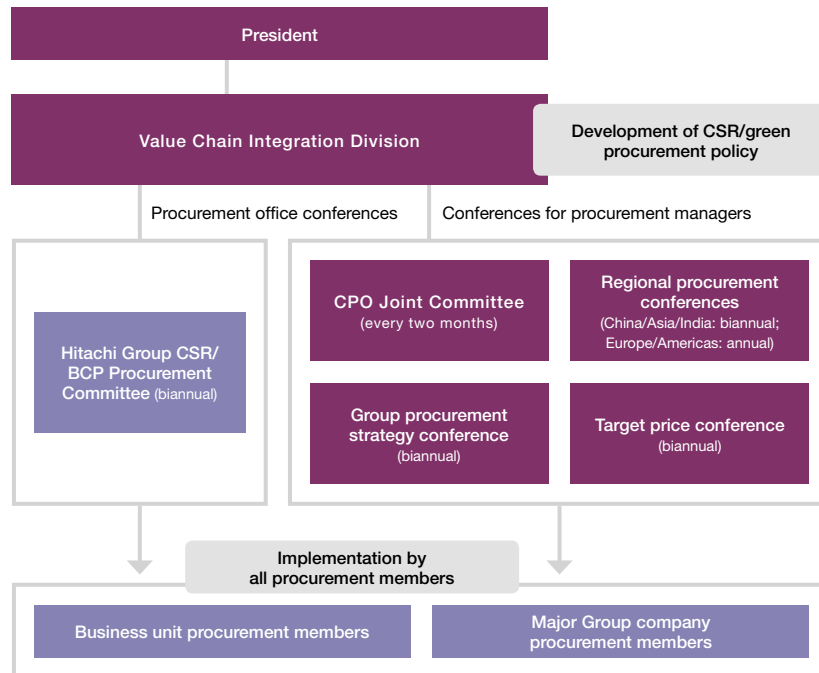
Joint Article Management Promotion Consortium

Number of Hitachi Group suppliers

(as of December 2018):

Approx. 30,000 companies (66 countries)

Supply Chain Management Organizational Structure

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┌─────────────────────────────────┐
│            President             │
└─────────────────────────────────┘
           │
┌─────────────────────────┐   ┌──────────────────────┐
│ Value Chain Integration │   │ Development of CSR/   │
│         Division        │   │ green procurement     │
│                         │   │ policy                │
└─────────────────────────┘   └──────────────────────┘
      │                    │
Procurement office      Conferences for
conferences             procurement managers
      │                    │
┌──────────────────┐  ┌───────────────────────────────────────┐
│                  │  │ ┌─────────────────┐ ┌───────────────┐ │
│ Hitachi Group    │  │ │ CPO Joint       │ │ Regional      │ │
│ CSR/BCP          │  │ │ Committee       │ │ procurement   │ │
│ Procurement      │  │ │ (every two      │ │ conferences   │ │
│ Committee        │  │ │ months)         │ │ (China/Asia/  │ │
│ (biannual)       │  │ │                 │ │ India:        │ │
│                  │  │ │                 │ │ biannual;     │ │
│                  │  │ │                 │ │ Europe/       │ │
│                  │  │ │                 │ │ Americas:     │ │
│                  │  │ │                 │ │ annual)       │ │
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│                  │  │ ┌─────────────────┐ ┌───────────────┐ │
│                  │  │ │ Group           │ │ Target price  │ │
│                  │  │ │ procurement     │ │ conference    │ │
│                  │  │ │ strategy        │ │ (biannual)    │ │
│                  │  │ │ conference      │ │               │ │
│                  │  │ │ (biannual)      │ │               │ │
│                  │  │ └─────────────────┘ └───────────────┘ │
└──────────────────┘  └───────────────────────────────────────┘
      │                    │
      │   ┌──────────────────────────┐   │
      └──▶│ Implementation by        │◀──┘
          │ all procurement members  │
          └──────────────────────────┘
      │                    │
┌──────────────────┐  ┌───────────────────────────┐
│ Business unit    │  │ Major Group company       │
│ procurement      │  │ procurement members       │
│ members          │  │                           │
└──────────────────┘  └───────────────────────────┘
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Strengthening Global Partnerships

A key element of the Hitachi Group Vision is to improve the competitiveness of our value chain based on partnerships with our suppliers. Given our business aim to expand internationally, we need to extend our procurement globally, looking toward increasing local production for local consumption.

We have appointed procurement officers to oversee local procurement in China, the rest of Asia, Europe, and the Americas. These officers carry out activities such as CSR audits, CSR monitoring (self-checks), and CSR procurement seminars in their respective regions. In this way, we are expanding our suppliers in emerging nations while also strengthening our response to CSR-related risks expected to arise from the global expansion of our supply chain.

Local procurement officers are also responsible for addressing environmental risks in China. Through the Institute of Public and Environmental Affairs, an environmental NGO, the officers obtain information about polluting enterprises made public by China's central and regional government bodies. They use this information not only for screening businesses who have transactions with these enterprises but also for urging the enterprises themselves to make improvements.

Rate of Local Procurement of Materials for Main Regions (Hitachi Group)

China
88%

Rest of Asia
71%

Europe
81%

Americas
66%
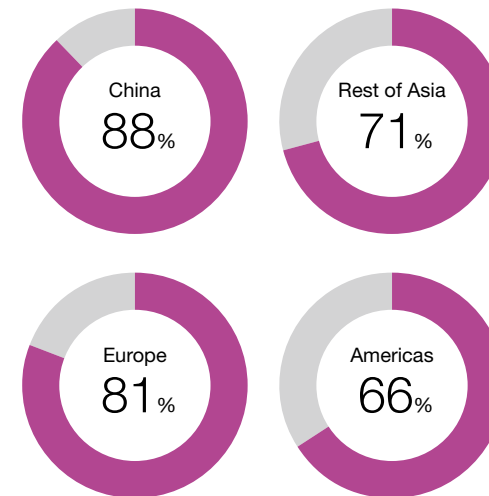
Sharing Procurement Policies

To ensure that the *Hitachi Group CSR Procurement Guidelines'* provisions are strictly followed, we distribute the fully revised fiscal 2016 edition to the approximately 30,000 suppliers of Hitachi business units and Group companies, from whom we request acknowledgment of suppliers' understanding in writing. Tier 1 suppliers are further asked to confirm that tier 2 suppliers also follow the provisions in the guidelines. Additionally, recognizing the global nature of our suppliers, we make the guidelines available not only in Japanese but also in English, Chinese, and Thai, the latter language added in fiscal 2018 in response to increasing labor and human rights risks in southeast Asia.

To procure parts and materials manufactured with reduced environmental impact, so that suppliers help to protect the environment, in fiscal 1998, we led the industry in developing *Green Procurement Guidelines*. These define our basic position on procuring parts and products that do not have a negative impact on the global environment, as well as our requirements of suppliers, so that we can work together to promote green procurement. The guidelines set out supplier requirements for environmental conservation, including building an environmental management system and acquiring certifications. There are also requirements for reducing the environmental impact of products supplied to Hitachi, such as conserving resources and energy in production, recycling, managing chemical substances, and fully disclosing related information.

There is a global trend toward tighter regulations on chemical substances. In fiscal 2013, we reviewed our categories for controlled chemical substances in our *Green Procurement Guidelines* to comply with the stipulations on restricted substances, authorized substances, and substances of very high concern (SVHCs) in the European Union's Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH) regulation for managing chemical substances within the EU. Specific changes include: (1) moving some chemicals to the prohibited substances list, (2) further breaking down the controlled substances list, and (3) adopting the industry association list. In preparation for the EU's RoHS directive that banned four types of phthalates in July 2019, we banned their use from January of that year. We also distributed the latest version of the *Green Procurement Guidelines* through Group companies and business units to suppliers to ensure that they are fully informed.

Hitachi Group CSR Procurement Guidelines

Hitachi Group Green Procurement Guidelines

Implementation of CSR Monitoring (Self-Checks)

To monitor how well Hitachi's CSR supply chain management philosophy has been adopted by our suppliers, since fiscal 2007 we have asked key suppliers to conduct CSR Monitoring (self-checks) using the *JEITA Supply Chain CSR Deployment Guidebook* and detailed checklists. After collecting and analyzing the results, we provide feedback for the business operations related to the suppliers, and then work with those involved in the operations to resolve issues related to the suppliers. Since fiscal 2011, we have expanded the scope to include suppliers in China and the rest of Asia, and from fiscal 2017 all checklists were fully updated in accordance with the revisions made to the *Hitachi Group CSR Procurement Guidelines*. In fiscal 2018 we asked 345 suppliers inside and outside Japan to conduct CSR monitoring (self-check, although simplified in some cases) and received survey replies from them. The survey results allowed us to identify labor-related issues requiring attention, and we will take precautionary measures to prevent issues arising.

Implementation of CSR Audits

Since July 2012, Hitachi, Ltd. has been auditing the manufacturing bases of its and Group companies' suppliers in China and the rest of Asia. In fiscal 2018, we conducted CSR and environment audits of 24 suppliers in China.✓

For these audits, we engaged external evaluators such as the experienced CSR auditing company Intertek Certification.[1] Our audits are based on the international SA8000 certification standard developed by Social Accountability International (SAI), an American CSR evaluation institution. These audits investigate our workplace practices, and an RBA-recognized auditor checks suppliers' CSR initiatives from the perspectives of labor and human rights, health and safety, the environment, and ethics.

No major infringements were found at the suppliers audited in fiscal 2018, but some small areas needing improvement were noted, such as overtime work exceeding stipulated rules (18 suppliers), failure to conduct periodic inspections of machinery and equipment (5), and insufficient management of hazardous waste (3). The relevant suppliers were requested to submit

improvement action plans, and Hitachi, Ltd., together with Group companies, will work with and advise the suppliers until they complete the planned improvements.

*1 Intertek Certification: With a presence in over 100 countries across the globe, the Intertek Group provides a wide array of certification services in every industrial field.

CSR Procurement Activities Implementation Status

	FY 2018	Total to date
CSR monitoring (self-check)	345	1,510*1
CSR audits	24 ✓	130*2
Supplier seminars	126	235*3

*1 Total from fiscal 2011–fiscal 2018.
*2 Total from fiscal 2012–fiscal 2018.
*3 Total from fiscal 2015–fiscal 2018.

Holding CSR Procurement Seminars   Objectives, Activities, and Achievements

In order to share the philosophy of Hitachi among our suppliers, in fiscal 2015 we introduced a new initiative to provide suppliers directly with information in a face-to-face format, in addition to the information shared on the Hitachi website as well as our CSR monitoring (self-checks), CSR audits, and other measures. The most recent of these face-to-face events was held in March 2019 at our CSR and Green Procurement Seminar held for Hitachi Group partners in East and South China. The event was attended by 176 people from 126 companies. At the seminar, Hitachi explained topics including its fundamental CSR philosophy, the CSR audit situation, regulatory trends under Chinese environmental laws, and Hitachi's related policies. Feedback from participants included a comment from one person who was "impressed by the emphasis the company places not only on *monozukuri* craftsmanship but also on fulfilling its social responsibility in a range of areas." Another participant "gained a sense that profitability is not the sole aim and that it is important to adhere to environmental laws." As reflected in the comments, the seminar served to deepen the understanding of Hitachi initiatives related to CSR and green procurement.

Human Rights Due Diligence in Procurement   Objectives, Activities, and Achievements

Starting in fiscal 2015, the Hitachi Group Procurement Division began implementing human rights due diligence based on the Hitachi Group Human Rights Policy. With the assistance of the consulting services of the nonprofit organization Shift, we have created a working group centered on the procurement and CSR divisions at Hitachi, Ltd., which serve as the corporate divisions overseeing activities throughout the Group, including the procurement and CSR divisions of two in-house companies, now called business units, four Group companies and the CSR division of Hitachi Asia. The working group has evaluated human rights risks within the supply chain, set priorities, and considered measures for reducing risks.

In fiscal 2016, we published the fully revised *Hitachi Group CSR Procurement Guidelines* based on results obtained from human rights due diligence activities in fiscal 2015 as well as input from a range of sources and perspectives, including Hitachi Europe, Hitachi (China), and outside experts.

In fiscal 2017, Hitachi further incorporated input from various perspectives into the revised CSR Monitoring (self-check) checklists for suppliers to prevent supply chain risks. As well as strengthening and improving existing initiatives in this way, we used the results obtained from the checklists to deepen our communication with suppliers. As part of our efforts to eliminate the use of forced labor, we visited one of our suppliers in Malaysia with members of nonprofit organization BSR (Business for Social Responsibility) to conduct an assessment on immigrant workers, who are often subject to forced labor. The results of the assessment were shared with the supplier and related businesses, and we are urging the supplier to improve working conditions where such improvement is deemed necessary.

In fiscal 2018, procurement officers from European Group companies formed the Responsible Supply Chain Working Group, sharing perspectives and issues on human rights relevant to procurement divisions along with Hitachi's CSR procurement policies, and discussing plans for future activity.

In cooperation with outside experts, we will continue to enhance suppliers' understanding of the expectations of Hitachi Group procurement departments and, at the same time, promote capacity building at suppliers and take other necessary measures.

Respect for Human Rights Throughout the Value Chain

Increasing Green Purchasing of Office Supplies

We are improving our green purchasing rate*[1]—the ratio of environmentally conscious products purchased to total office supplies—by using a Group-wide online procurement system called the E-sourcing Mall since fiscal 2002. This system has a range of environmentally conscious products and promotes procurement by clearly labeling these products. In fiscal 2018, our green purchasing rate reached 86%.

*1 Green purchasing rate: The ratio, by monetary value, of products with the Eco Mark among all products purchased subject to the Act on Promoting Green Procurement.

Conflict Minerals Procurement Policy

Hitachi released a Conflict Minerals Procurement Policy in September 2013. Our *Request to Our Suppliers*, based on this policy, is published on our website as a clear statement of our position.

In fiscal 2016, we revised this policy to ensure that procurement of components incorporating conflict minerals does not benefit armed groups in the Democratic Republic of the Congo (DRC) or adjoining countries. The policy now explicitly lays out the measures to be implemented, including inquiries based on international guidelines, to ensure responsible procurement.

Hitachi Group Conflict Minerals Procurement Policy
Conflict Minerals
There are numerous types of mineral resources buried within the lands of the Democratic Republic of the Congo, located in central Africa, and its neighbouring countries. Ores containing minerals such as tin which is used in solders to secure electronic parts to printed circuit boards, tantalum which is used in capacitors, tungsten which is used in superhard materials, and gold which is used in lead frames can be found in this region. The locals extract these ores, which traders and brokers export to other countries in order to earn valuable foreign currencies, but part of those foreign currencies are forcibly collected and used as funds to purchase weapons by armed groups that repeatedly engage in conflict and violate human rights in the same region, which has become a major problem. As such, the minerals listed above are called "conflict minerals".

Procurement Policy
The policy for procurement departments in all Hitachi Group companies have always been and will continue to be to ensure that procurement activities do not result or aid in conflicts within the same region and that the armed groups described above do not benefit from those activities, while continuing responsible procurement activities of minerals that are not related to the conflicts in the region based on local laws. Additionally, we will continue to support the practice of due diligence based on the "OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas" among companies. With these in mind, Hitachi Group would like to request all our suppliers to utilise the Conflict Minerals Reporting Template developed by RBA/GeSI to continue checking the country of origin and supply chain of minerals, and also to procure from the CFS (Conflict Free Smelter)*[1] listed within.

*1 CFS (Conflict Free Smelter): A list of smelters who have been identified as "not being involved in the conflict within the same region" by the Responsible Minerals Initiative (RMI), an organization that was founded by the RBA/GeSI, which is a group that aims to solve the conflict minerals problem.

Hitachi Group Conflict Minerals Procurement Policy

Conflict Minerals Response Framework

Sales divisions, business groups, plants, procurement divisions, and other divisions within individual business units and Hitachi Group companies work together to respond to investigation requests and inquiries relating to conflict minerals. We also strive to grasp developments in conflict mineral-related laws and regulations in each country and region and what global society demands of enterprises, working to share information within the Group.

Hitachi's Conflict Minerals Response Framework

▶ Headquarters   ▶ Individual BUs/Group companies
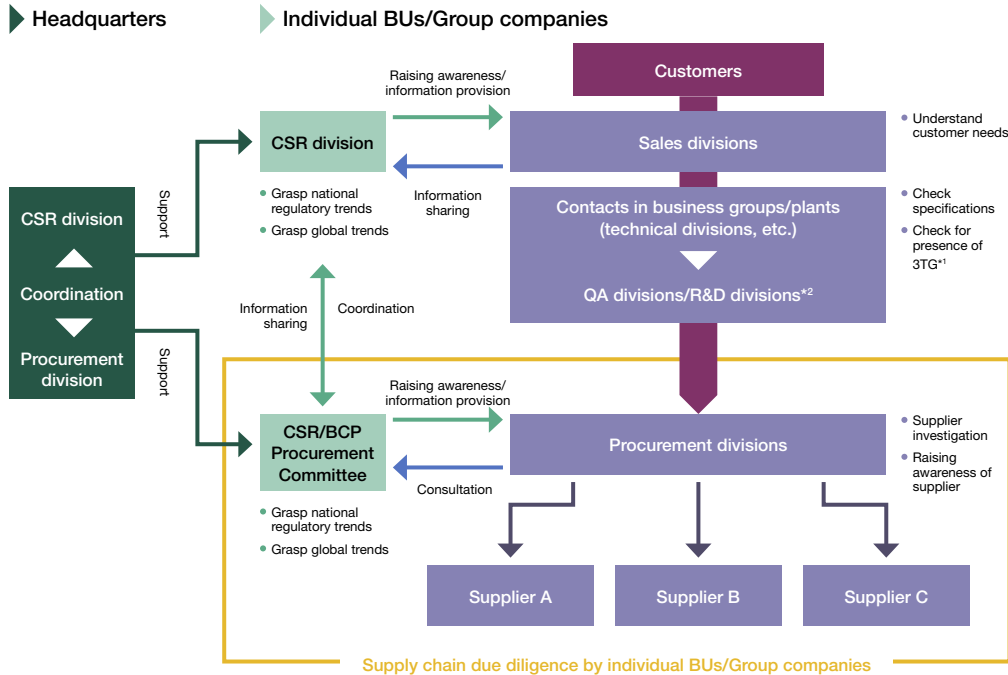
*1 3TG: Collective term for four commonly used conflict minerals: tin, tantalum, tungsten, and gold.
*2 May differ depending on business unit or Group company.

Response to the Conflict Mineral Issue   `Objectives, Activities, and Achievements`

Based on the *Guidelines for Procurement Activities*, each Hitachi business unit and Group company investigates its use of conflict minerals and reports the results to customers when requested. Supply chain investigations are carried out with the cooperation of the relevant entities' sales, procurement, and CSR divisions. In 2017, Hitachi, Ltd. and five key Group companies (Hitachi Metals, Hitachi Chemicals, Hitachi High-Technologies, Hitachi Automotive Systems, and Hitachi Industrial Equipment Systems) performed investigations and replied to a total of 1,422 requests from customers.

Additionally, as a member of the Japan Electronics and Information Technology Industries Association (JEITA)'s Responsible Minerals Trade Working Group, Hitachi, Ltd. attended JEITA's Responsible Minerals Sourcing Inquiry Briefings for suppliers of JEITA member companies, explaining the latest trends and reporting template related to conflict minerals and responding to questions from attendees. We will continue striving to cooperate with other organizations in developing the awareness of conflict minerals among industry.

🖱 JEITA Responsible Minerals Trade Working Group

Quality and Safety Management

Hitachi's Approach to Quality Assurance Activities   `Policy`

Providing products and services that our customers can use with confidence, along with meeting the requirements and quality standards of our customers in order to achieve this, are important values shared by all our employees and codified in the Hitachi Group Codes of Conduct. Our fundamental philosophy for quality assurance activities is outlined in the Quality Assurance Standards in our corporate regulations, and each of our employees pursues quality assurance activities according to this approach.

Maintaining the values of Harmony, Sincerity, and Pioneering Spirit that comprise the Hitachi Founding Spirit, as well as adhering to basics and ethics and putting right and wrong before profits and losses, we place great emphasis on Sincerity in quality assurance activities as part of earning trust in our products.

One integral aspect of this is our unique and longstanding practice of *ochibo hiroi*, which means "gleaning" in English and involves learning from failure to further develop our technologies. When an incident occurs, our executive officers take the lead in examining things from the customer's perspective, not only investigating the technical causes but also thoroughly discussing the process, framework, and motivating factors leading up to occurrence, along with ways to prevent reoccurrence, in order to improve our product reliability and customer satisfaction.

To ensure that quality and reliability are maintained, we are strengthening our quality assurance activities from the perspectives of organization and management, technology, and human resources in every process—from planning and development to design, manufacturing, testing, delivery, and maintenance.

Hitachi Group Codes of Conduct

Framework for Quality Assurance
Frameworks and Systems

To ensure full control over quality governance, we have separated the quality assurance division from the manufacturing division in every business unit and Group company, creating a framework for activity in which our customers' safety and trust are the top priorities. Since fiscal 2018, in order to strengthen this framework further, we have reinforced the report lines from BU and Group company quality assurance divisions to the quality assurance division at our head office, independent from all business divisions, establishing systems for close information sharing between the two. We have also strengthened governance by giving greater authority to the quality assurance division at our head office.

Furthermore, to share quality activities and current challenges in our expanding services business, we have newly established a Service and Software Quality Enhancement Division. By bringing the software development capabilities and expertise in strengthening trust of our solutions divisions to our product divisions (embedded software development divisions), we aim to increase trust in our embedded software even further.

Accident Prevention Activities
Objectives, Activities, and Achievements

Under our approach of making prevention the duty of quality assurance, we are working beyond recurrence prevention and striving toward preventing accidents from occurring in the first place. Closely following the changes in a range of business activities, we anticipate quality issues on the horizon across the entire Group and plan our quality activities accordingly.

Complying with Technical Laws
Objectives, Activities, and Achievements

To supply our customers with products that they can use with confidence, we comply with all product safety and technical laws, including those covering environmental consciousness and safety labels. We distribute information on product regulations worldwide, along with amendment trends and enforcement dates, among Hitachi Group companies. We have also created guidelines for assessment of technical laws and quality assurance systems, sharing them throughout the Group. The guidelines include information on the two themes of clarifying product-specific laws (the product-specific laws map) and regulatory compliance activities and continuous improvement of processes, based on our product compliance management system.

Product Safety Activities
Policy Objectives, Activities, and Achievements

Hitachi's Product Safety Assurance Guidelines state that our highest priority is the safety of our customers, and, based on these guidelines, we promote activities to ensure safety across the Group.

As changes in social norms and the environment bring about the need for higher standards of safety, we are crafting even higher safety standards through Group-wide activities to increase trust in Hitachi, sharing the latest practical cases within the Group, and cross-evaluating the product safety activities of each division.

We are also proactively working to disclose safety information on the use of our products and establish the Guide for Preparing User Instruction Manuals in order to improve risk communication with our customers.

Hitachi is committed to the delivery of safe products and services by combining expertise and technologies in such varied areas as planning, research, design, manufacturing, quality assurance, and maintenance. The safety of our customers' life, health, and property is the top priority in product development. Therefore, we verify safety at every step, from development and production to sales and maintenance. We also conduct risk assessments from a wide perspective in collaboration with related business units and research laboratories. In responding to these risks, we ensure safety by means of measures to reduce risk through design (fundamental safety design), protective measures (safeguards), and usage information (product manuals), in order of priority.

Handling Product Accidents

We conduct product safety risk assessment as well as testing worst-case scenarios—for example, deliberately setting a fire inside a consumer appliance to confirm that the fire will not spread outside it. Furthermore, along with each product's full manual, we include a quick start guide summarizing key features and operations, and make step-by-step how-to videos available on our corporate website as well.

We will continue to make all our consumer appliances even safer, using our own voluntary action plan for product safety, so that customers can use our products with confidence.

When a product accident occurs, the division responsible acts swiftly to resolve the problem and ensure absolute safety from the customer's perspective. For an especially severe accident, we report to government agencies in line with legal requirements and publish the incident information on our website and through other channels. At the same time, we promptly submit a status report to top management, ensuring fast and appropriate action at all companies across the Group.

When we determine that retroactive action is necessary, we notify customers via newspaper advertising and websites in order to carry out the necessary repair or replacement program.

Response Flow in the Event of Product Accident
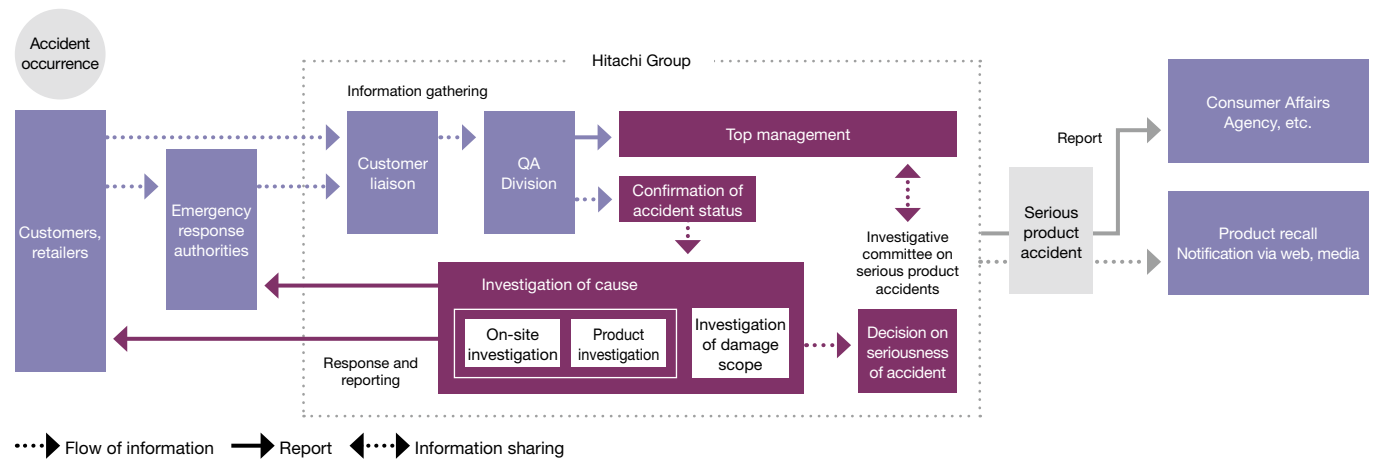
Quality and Reliability Education Objectives, Activities, and Achievements

We conduct field-specific technical lectures for engineers engaged in *monozukuri* craftsmanship at a range of levels from beginner to expert.

Each business unit also conducts specialized technical courses regarding manufacturing, quality assurance, and maintenance at their quality assurance training centers.

Global Quality Assurance Activities Objectives, Activities, and Achievements

In order to expand our fundamental principles for quality assurance activities around the globe, we have created Global Quality Assurance Standards and are strengthening global governance across the entire Group.

Specifically, we are carrying out quality activities globally by sharing our principles, as described in the Hitachi Group Codes of Conduct and the Hitachi Founding Spirit, as well as through accident prevention activities, recurrence prevention activities, and personnel training activities.

Rigorous Information Management

Information Management Policies on the Use of the Web and Social Media Policy

Hitachi places great importance on its corporate website, social media, and other tools for promoting its activities and deepening customer understanding as part of developing its Social Innovation Business globally. Effective risk management is required when using these tools to protect our brand and avoid violating the rights of others, including human rights. To this end, we have established the Social Media Policy and other policies, which are shared globally. The Hitachi Social Media Policy is an umbrella term that includes the Communication Guidelines, which stipulate policies on the use of social media; the Communication Guidelines for Employees, which specify how employees should approach the use of social media, including rules to be followed and proscribed types of activity; and the Operation Manual, which provide specific

information on the operation of social media. An e-learning tool is also available in Japanese, English, and Chinese to deepen understanding of how social media should be approached and its risks addressed.

Personal Information Protection Policy Policy

Hitachi, Ltd. has established a personal information protection management system based on its Personal Information Protection Policy. Through the rollout of this system, as well as the safe handling of personal information, programs for all employees, and periodic audits, we are ensuring protection of personal information throughout the company.

🖱 Hitachi Personal Information Protection Policy

Management Framework for Customer Information Frameworks and Systems

Hitachi's customer relations management framework, HiCRM, has been applied to 195 Group companies to collect and accurately manage customer and transaction information Group-wide, in addition to serving as a marketing tool. HiCRM covers more than 80% of the orders received across the whole Group, with the database enabling us to formulate more effective sales strategies and offer collaborative solutions by multiple businesses. Going forward, we will consider rolling out the system more aggressively across the Group.

Privacy Mark[1] Certification Objectives, Activities, and Achievements

Hitachi, Ltd. first received Privacy Mark certification in March 2007. We have maintained the high level of privacy protection needed to renew this certification and we are working toward our sixth renewal in March 2019.

Use of Personal Data and Protection of Privacy

Hitachi's Approach to the Use of Data and the Protection of Privacy Policy

The entire Hitachi Group is committed to personal information protection, with 43 Hitachi Group companies ⊘ having received the Privacy Mark as of March 31, 2019.

Hitachi also strives to safeguard personal information globally at Group companies outside Japan based on each company's personal information protection policy and compliance with all applicable laws and regulations as well as the expectations of society at large.

Hitachi experienced one case of personal information leakage during fiscal 2018.

*1 Privacy Mark: A third-party certification established in April 1998 that is granted by the assessment body Japan Information Processing Development Corporation to businesses that have taken appropriate security management and protection measures related to personal information.

![Privacy Mark logo - Protecting your PRIVACY 10300031(07)]

Responding to Personal Data Protection Laws Around the World Objectives, Activities, and Achievements

With the increasing risk of privacy violation in recent years due to the advent of the digital age following advances in IT and the globalization of socio-economic activities, lawmakers are actively seeking to create and modify relevant laws and legislation in countries and regions around the world. The Hitachi Group pays close attention to relevant laws and legislation on a global basis, including the European General Data Protection Regulation (GDPR), making efforts to comply with them across the Group. It also monitors relevant legislation and social trends and takes action in response when necessary.

The term "personal data" has come to be used to mean any data associated with individuals, such as location information and purchase history, irrespective of whether or not such data can legally be defined as "personal information." The use of personal data can be expected to create value going forward, but the privacy of individuals must also be considered carefully. In addition, as the amount of personal data collected continues to increase in the IoT era, risks related to privacy are also likely to change.

In order to create value through safe and secure use of personal data, in 2014 we began efforts to protect privacy in the use of such data, mainly in departments related to information and telecommunications systems.

Framework for Implementing Privacy Protection Frameworks and Systems

In departments related to information and telecommunications systems, which lead our digital business, we have assigned a personal data manager responsible for managing privacy protection and established a privacy protection advisory committee to support risk assessments and develop countermeasures based on knowledge and expertise of privacy protection. Under this system, our employees implement privacy impact assessments for processes where personal data will be handled and take measures to prevent privacy violations. When employees find it difficult to assess risks on their own, or conclude that risks of privacy violation are high, the privacy protection advisory committee will extend support to deal with the case and help reduce risks.

Seeking to Ensure the Safety and Security of Consumers and Customers

To meet consumers' expectations around privacy protection, Hitachi regularly conducts consumer opinion surveys on the use of personal data in big data businesses in order to understand changing consumer perceptions and take them into consideration when updating privacy protection measures.

Hitachi has conducted privacy impact assessments in many business fields. In fiscal 2018, we conducted 180 assessments in a wide range of fields, including finance, public services, social infrastructure, and industry/logistics. In order to leverage the expertise built on these experiences when conducting business with our customers and promote social consensus on the use of personal data, we have made publicly available a whitepaper on Hitachi's privacy protection initiatives in the use of personal data, which summarizes our privacy protection efforts.

Customer Satisfaction

Hitachi's CS Improvement Approach

Using the Customer Satisfaction Management Guidelines, one of the pillars of the company's business management, Hitachi continues to improve customer satisfaction (CS) with the goal of creating innovation through collaboration with customers.

Customer Satisfaction Management Guidelines

1. Listen to our customers, who determine the value of products and services
2. Review information from our customers is another source of improvement
3. Offer prices and quality that are competitive
4. Respond rapidly to keep our promises to our customers
5. Adopt systems that prevent accidents and minimize their impact

Formulated in 1994

Applying Advertisement Guidelines

Based on its Customer Satisfaction Management Guidelines, Hitachi, Ltd. applies advertisement guidelines to ensure that its advertising activities comply with laws and regulations showing proper consideration for society as a whole. We will continue to create advertisements that reflect ongoing changes in society, that provide customers with clear and concise messages, and that are appropriate for a company committed to contributing to society.

As issues that arise from advertisement activities can have broad impact on the company, we have established in each business unit a framework for constantly evaluating the acceptability of expressions used in advertisements, in collaboration with a division that stands independent of the ad production line. Following this institutional check, we also evaluate advertisements to ensure that they are socially appropriate.

We designed our advertisement guidelines to be flexibly adjusted and applied to the entire Hitachi Group's diverse operations. At our business locations outside Japan, where languages and customs vary, we strive to ensure appropriate advertising activities by confirming all items on the checklist included in the guidelines.

Framework for Reflecting Customers' Voices

The sales and marketing divisions at Hitachi, Ltd. use customer input in developing management, product, and solution strategies. We identify key customers who will help grow our business, then assign an account manager (AM) to each one. The AMs serve as customers' "portals" into Hitachi Group companies in Japan, and the whole Group works with them to build closer relations with customers and to boost CS.

We hold executive seminars for local customers at our operations across Japan. Through direct dialogue with customers participating in these seminars and lectures, we incorporate their expectations for Hitachi and their opinions into product strategies.

To accelerate collaborative creation with customers in Hitachi's evolving Social Innovation Business, we also hold Hitachi Social Innovation Forums in and outside Japan, providing lectures, exhibits, and more. Our sales teams invite our customers to these events to deepen their understanding of Hitachi's business. We also collect feedback from these events to improve our future operations.

Our R&D Technology Community program provides opportunities for collaborative creation with customers. In Japan, project leaders invite customers to their research labs and show them exhibits of products and systems currently being developed. This program provides opportunities for researchers to speak directly with customers, contributing to collaborative creation of new businesses based on customer needs and Hitachi technology.

Providing Customer Support Online Frameworks and Systems

Hitachi offers comprehensive customer support on its website. This enables us to process customer inquiries, opinions, requests, and complaints—in collaboration with the customer support offices of Hitachi Group companies in Japan—to improve our business operations, as well as our products and services. We also conduct training courses to provide better handling of these inquiries. In fiscal 2018 we had 3,831 customer inquiries globally.

As one initiative, we have been holding the Web Inquiry Responsiveness Improvement Course since fiscal 2009. In fiscal 2018, 32 Hitachi Group company employees took the course (bringing the cumulative total to 827 participants), which features case studies on responses to inquiries. Going forward, we will strengthen coordination among Group companies to respond more quickly and effectively to customer inquiries, using the website as an important contact tool.

Customer Survey by Information and Telecommunication Business Objectives, Activities, and Achievements

The Systems & Services Business at Hitachi, Ltd., which provides information and telecommunication systems, has been conducting a customer survey regularly since 1995 with the aim of accelerating collaborative creation with customers and providing better solution services.

The survey seeks customers' views and opinions on sales personnel, engineers, and maintenance staff and their expectations for Hitachi. Overall evaluation results and individual customer opinions are shared with relevant divisions centered on responsible sales divisions and

used to improve daily activities and actions and build business, sales, and product strategies.

In the Customer Satisfaction Survey 2018–2019 published in the September 13, 2018, issue of Nikkei BP's *Nikkei Computer*, we were ranked top in five categories: IT consulting and upper-stream design services, system development-related services, PC servers, enterprise servers, and integrated operation management software.

Improving CS in Electric Home Appliances Objectives, Activities, and Achievements

The Electric Home Appliances Customer Satisfaction Division provides services and solutions to improve quality of life for people of all ages—both at home and in the city. In Japan, these initiatives are carried out under the slogan, "360° Happiness: Encircling People and All Their Dreams for the Future."
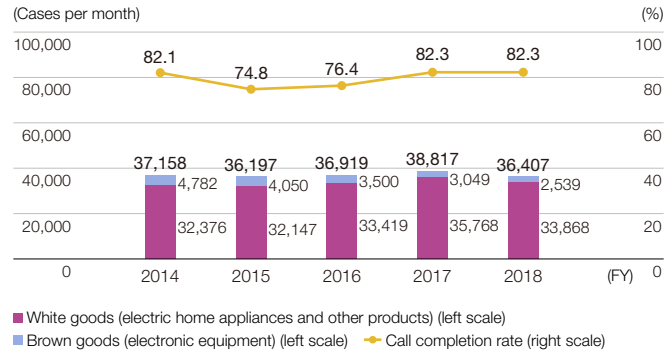
Our call center and website handle about 2.22 million customer inquiries, repair requests, and complaints about washing machines, LCD TVs, and other appliances per year.[1] We have undertaken a number of initiatives to better respond to inquiries and to reflect customer feedback in our *monozukuri* craftsmanship, including improving the contact success rate by using outsourcing; creating a database of customer feedback, including consultations, inquiries, and complaints; and enhancing our website's FAQ section.

We also conduct semiannual customer service evaluation surveys at approximately 90 service centers in Japan. Based on the answers, we improve services through CS training courses and other programs.
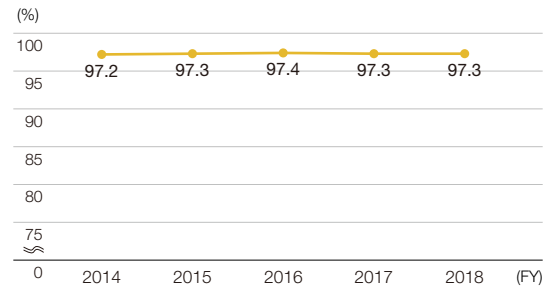
With the expansion of Hitachi's markets outside Japan, sales offices have been opened in ten countries in Asia and the Middle and Near East. We are also working on unifying management of operations outside Japan.

*1 Since fiscal 2013, technical inquiries from suppliers and parts orders have been excluded from these statistics.

## • Customer Contact Cases, Call Completion Rate (12-Month Average)

(Cases per month) / (%)

	2014	2015	2016	2017	2018
Call completion rate	82.1	74.8	76.4	82.3	82.3
Total	37,158	36,197	36,919	38,817	36,407
Brown goods	4,782	4,050	3,500	3,049	2,539
White goods	32,376	32,147	33,419	35,768	33,868

■ White goods (electric home appliances and other products) (left scale)
■ Brown goods (electronic equipment) (left scale)
━●━ Call completion rate (right scale)

• Results of Evaluation Survey for Customer Repair Services (CS)

(%)

2014	2015	2016	2017	2018	(FY)
97.2	97.3	97.4	97.3	97.3	

Note: Evaluation survey for fiscal 2018 carried out in June–July 2018
(35,400 respondents; 32.8% response rate) and December 2018–January 2019
(28,800 respondents; 33.8% response rate).

Flow of Customer Service
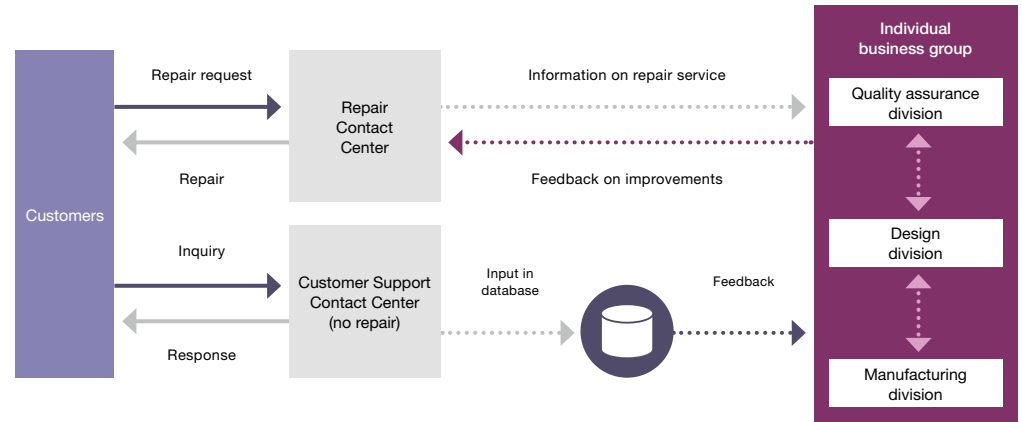
━━▶ Response activity   ┈┈▶ Flow of information   ◀┈┈▶ Information sharing

Community

Hitachi's Approach

Our diverse operations span the globe and involve a wide range of communities. To build long-term relationships with all communities involved in our business and to contribute to their development, we carry out various social contribution activities in the key fields of human development, the environment, and community support. In recent years, we have focused on STEM (science, technology, engineering, and mathematics) education to foster the next generation of human capital who will lead the future, and in fiscal 2018 we carried out a diverse range of activities drawing on the respective strengths of each Group company.

Our Impact on Society

Funding for social contribution activities

1,888.11 million yen

Our Performance

No. of participants

54,629 (approx. 18.5% of total employees)

Social Contribution Activities

Policy on Social Contribution Activities   Policy

In an effort to achieve the 2021 Mid-term Management Plan, Hitachi is working to create social and environmental value through the Social Innovation Business. Social contribution activities lead to the creation of social and environmental value and can support the sustainable development of society and continued business growth. We thus actively promote activities in the key fields of human development, the environment, and community support, which are outlined in the policy on social contribution activities shared by the Group. As a company aiming to solve social issues through innovation, we believe we have an important mission to foster not only our own human capital but also people in the fields of science and technology more broadly. Also, as a global company, we believe it is essential for employees to actively volunteer their time to address local issues and needs, building trust with the local community as a good corporate citizen. Volunteering has benefits for employees as well, as it can heighten their awareness of social issues and—by helping resolve those issues—enhance their motivation to work. This can, in turn, become a driving force for the Social Innovation Business and our many other operations.

> **Policy and Statement on Social Contribution Activities**
> Policy on Social Contribution Activities
> The Hitachi Group promotes interactive communication with local society through social contribution activities related to business activities, employee volunteers, and charitable activities in the key fields of human development, the environment, and community support.
> Statement
> "Nurturing People, Connecting to the Future"
> The statement was set down to succinctly express the meaning of the policy so that its orientation may be shared by employees, the community, and various other stakeholders so that it can reach as many people as possible.
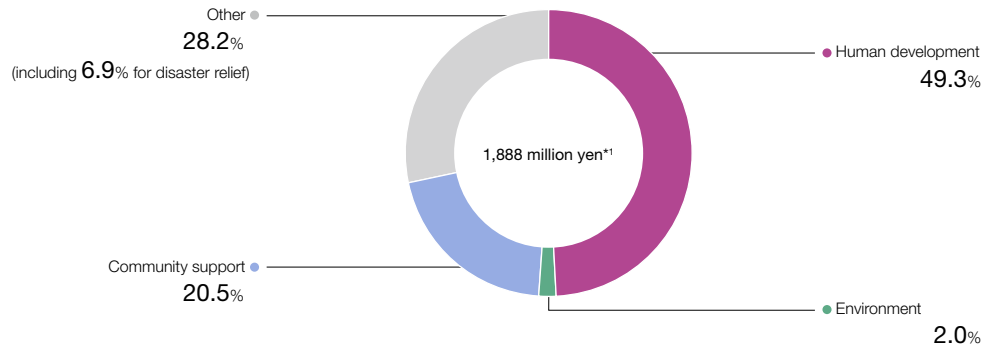
Social Contribution Activities

Funding for Social Contribution Activities

In fiscal 2018, Hitachi and the Hitachi Global Foundation provided about 1.9 billion yen in funding toward social contribution activities worldwide. Additionally, 54,629 Hitachi Group employees (around 18.5% of the total) participated in social contribution activities.

● Breakdown of Funding for Social Contribution Activities

Other
28.2%
(including 6.9% for disaster relief)

1,888 million yen*1

● Human development
49.3%

● Environment
2.0%

Community support ●
20.5%

*1 Japan: Hitachi, Ltd., 141 Group companies, and the Hitachi Global Foundation.
　Outside Japan: 152 Group companies. Funding includes monetary and in-kind donations, independently organized programs, participation or dispatch of employees, community use of facilities, and employee donations; excludes personnel costs incurred from the participation or dispatch of employees.

Advancing STEM Education as One Hitachi

The rapid advance of AI, big data analytics, and other information technologies has made the development of IT personnel an urgent priority. There is growing worldwide recognition of the importance of STEM (science, technology, engineering, and mathematics) education to foster human resources capable of utilizing IT and other cutting-edge technologies to enhance their creativity, expressivity, and problem-solving skills. We are implementing various STEM-related social contribution activities to foster a new generation of human capital to lead the future.

STEM Education to Develop Engineers in the United Kingdom (Hitachi Rail Ltd.)

In response to a serious shortage of engineers in the United Kingdom, Hitachi Rail launched a brand new educational program in October 2018, partnering with Primary Engineer, a non-profit organization that delivers STEM educational programs for education institutions, targeted at 5- to 10-year-old primary school pupils.

　The program delivers training to teachers with the company's engineers at about 50 primary schools in Ashford, Doncaster, Bristol, Newton Aycliffe, and West London, where Hitachi's railway business sites are located. Approximately 3,000 pupils will benefit from this educational experience in the 2018–19 academic year.

　This program is funded for three years by Hitachi Rail. In year two, the existing 50 schools will be supplied with the materials to continue with the program while a new cohort of 50 schools will be trained and enabled to run the rail-oriented engineering projects in the classroom. Within the three year program, over 16,000 pupils will have engaged with this program.

　Hitachi Rail recognizes the importance of working with schools to raise children's awareness of exciting career opportunities in engineering fields. Therefore, this STEM program is linked to the school curriculum, implemented by a team of school teachers and the company's engineers. Using rail train models, the children learn rail engineering directly from the engineers of Hitachi Rail.

Parliamentary Under Secretary of State for Transport Nusrat Ghani said that this program is a fantastic demonstration of collaboration for nurturing next-generation engineers, working in partnership with industry and the education and charity sector.

Hitachi Rail will continue to tackle with the lack of skilled workers in engineering fields by delivering the STEM program, which will lead to the company's growth and supporting the government's Industrial Strategy in the United Kingdom.

Participating pupils celebrate the completion of the program.

Programming Classes for Schoolchildren (Hitachi Consulting Co., Ltd.)

There is a growing interest in programming in Japan, as courses in the subject will start in earnest at elementary and junior high schools under the education reforms of 2020.

Believing in the importance of STEM education to foster the next generation of IT personnel, Hitachi Consulting has developed an original programming curriculum that draws on the company's IT skills and content to cultivate an ability to think logically. The classes, taught by volunteering employees, are for the children of Hitachi Group employees in grades three to six and are held at the offices of Hitachi Consulting and Hitachi, Ltd. Classes were held four times in 2018 with the participation of approximately 100 children and their parents.

Working with an original textbook, schoolchildren use tablets to learn a basic robot operating program. The program is then applied to run ball-shaped robots on a course the children themselves have created. This exercise is intended not only to stimulate interest in IT but, through the sharing of the programs the children created, to cultivate their presentation skills. Going forward, there are plans to fine tune the program for different age groups and to hold classes in cities other than Tokyo. Consideration is also being given to inviting the participation of children outside Japan by linking classrooms via the internet.

One aim of the program is to enhance the presentation skills of participating schoolchildren.

Hitachi Professional Engineers Association

The Hitachi Professional Engineers Association[1] was established in 1984 to contribute to society and business operations in many ways, such as offering society the technological expertise of its members through the Social Contribution Promotion Committee. One of the association's activities is the Science Dream Club, aimed at cultivating an interest in science among children who will lead the next generation. Using original content, the club conducts workshops at various science-related events that allow participants to experience the mechanisms of science. In fiscal 2018, 21 workshops were held in Osaka, Hamamatsu, and the Greater Tokyo area. In December 2018, the club participated in a program organized by the University of Tokyo (with the support of the Japan Science and Technology Agency) to develop engineers of the future. Using Raspberry

Pi—a business-card-sized PC—about 30 junior high school students participated in an electronic workshop at Kawaguchi Municipal High School to learn the basics of programming and IoT. Future workshops will aim to provide opportunities not just to experience programming but also to acquire practical IoT and scientific skills in line with specific goals.

*1 A group of highly qualified engineers certified by the Japanese government as either "professional engineers" or "associate professional engineers." Chaired by the CEO of Hitachi, Ltd., it is one of the largest corporate associations of professional engineers in Japan.

A workshop for junior high school students using Raspberry Pi.

Development of Next-Generation Leaders   Objectives, Activities, and Achievements

One priority in Hitachi's social contribution activities is the development of human resources. Our initiatives are not just in the field of science and technology but also focus on fostering the next generation of leaders to tackle issues at the global and local levels and bring about positive change in society.

▌Hitachi Scholarship Program for the Asian University for Women (Hitachi, Ltd.)

Hitachi, Ltd. has been providing scholarships to students at the Asian University for Women (AUW) since fiscal 2014. AUW is an international university in Chittagong, Bangladesh, that was established in 2008 to provide higher education opportunities to socially or economically disadvantaged women from South and Southeast Asia. Three students having high aspirations and a strong motivation to address such social issues as poverty, education, and gender inequality were selected as Hitachi Scholars and have been provided with scholarships and support since 2014 during their four-year undergraduate years. Six new students majoring in the fields of science and technology will be selected and provided with support from 2018.

Through our support of Asian women in higher education, we will promote greater diversity among community leaders and people with scientific or technological expertise, helping address issues in social sustainability and contributing to regional development.

▌Hitachi Young Leaders Initiative (Hitachi, Ltd. and Hitachi Asia Ltd.)

The Hitachi Young Leaders Initiative (HYLI) was launched in 1996 with the aim of nurturing the next generation of leaders in ASEAN and Japan. Held for the fifteenth time in July 2019, HYLI brings together outstanding undergraduate and graduate students from seven ASEAN countries (Indonesia, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam) and Japan to participate in a program featuring speeches and panel discussions by top experts, group work, and community activities. The participants come to recognize and reach a common understanding on the various issues confronting ASEAN, and they hold discussions and offer proposals on ways to address those issues. The program's over 340 alumni through fiscal 2018 are now active in a variety of fields, including international organizations, government, corporations, and NPOs.

🖱 Social Contribution Activities

Contributing to Society Through the Hitachi Global Foundation

The Hitachi Global Foundation conducts social contribution activities around the three pillars of "promotion of academic research, science, and technology," "human development," and "support for local communities."

Activities of the Hitachi Global Foundation

The Hitachi Global Foundation conducts 14 social contribution projects based on the three core pillars of "promotion of academic research, science, and technology," "human development," and "support for local communities." Some of the most prominent projects conducted in fiscal 2018 include the following.

In the field of "promotion of academic research, science, and technology," the foundation provides Kurata Grants, which support researchers engaged in the pursuit of solutions to global social challenges. On March 1, 2019, an award ceremony for the 50th Kurata Grants was held, with prizemoney totaling 30.8 million yen. The 30 winners in the natural sciences and engineering were 12 projects in the category of energy and the environment, 5 in urban development and transportation, and 13 in healthcare (with 7 being interdisciplinary studies incorporating research in the humanities and social sciences). To commemorate the 50th anniversary of the awards, the winners also received a booklet containing the names and photos of all grant recipients over the full history of the Kurata Grant and a crystal magnifier-paperweight inscribed with the name of the winner.

As for "human development," the Hitachi Future Innovator Program to promote the development of science and engineering human resources entered its third year. Aimed at Japanese schoolchildren in the upper grades of elementary school, the program was expanded from two schools to three, and its content was enriched. This project-based learning program has been highly praised not only for enhancing the problem-solving ability of schoolchildren but also for promoting the development of teachers.

In addition, a new website called My Tomorrow aimed at female junior high and high school students was launched to raise interest in science and engineering careers. It features interviews (called Pioneer Talk) with leading women professionals, focusing on their experiences, work, and ideas. The third interview uploaded in September 2018 is a dialogue between Yuki Igarashi, PhD, Associate professor, Department of Future Media Science, School of Interdisciplinary Mathematical Sciences, Meiji University, known as a programming genius, and Yukiko Araki, Corporate Officer, Hitachi, Ltd.

In a related project, 18 junior high school girls participated in a workshop to create their own dolls using computer graphics programmed by Igarashi.

In the field of "support for local communities," the foundation publishes *Mirai* (Future), a web magazine that examines regional and social issues of high public interest. The third issue focused on the issues and challenges of a declining birthrate and featured a dialogue between the foundation president and Toko Shirakawa, a journalist and book author on such topics as the declining birthrate and work-life reform. Other articles included a report on a symposium on surviving the era of a declining birthrate and opinion pieces submitted by experts, including Tomiyo Kagami, professor of comparative literature and cultures in the Graduate School of Humanities and Sciences, Ochanomizu University.

The Hitachi Global Foundation will continue to implement projects in the public interest that contribute to resolving the biggest social challenges of our time.

The Hitachi Global Foundation

Governance

Striving to Increase Corporate Value

Not only is Hitachi strengthening its corporate governance in areas like the role and composition of the Board of Directors and standards for determining the suitability and independence of its independent directors, it is also taking self-directed action to enhance corporate value by sharing its Codes of Conduct and values across the Group, ensuring compliance with laws and regulations, and advancing risk management. In this way, we contribute both to the company's own sustainable growth and the development of the economy as a whole.

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Corporate Governance

Hitachi's Approach

Hitachi not only strives to ensure the legality, soundness, and transparency of its business but also endeavors to respond rapidly to constantly changing economic and social conditions and efficiently conduct operations. We seek to increase corporate value by formulating and executing business strategies to enable the Group to demonstrate its collective strength, bolstering mutual collaboration within the Group, and improving management oversight of Group companies. We maintain and reinforce a management structure enabling us to fulfill our social responsibilities in line with the Corporate Governance Guidelines, formulated to provide a framework for corporate governance and direction for our reinforcement efforts.

Our Impact on Society

No. of consolidated subsidiaries

Japan: **181**   Outside Japan: **622**

Our Performance

Ratio of non-Japanese directors

36.4%

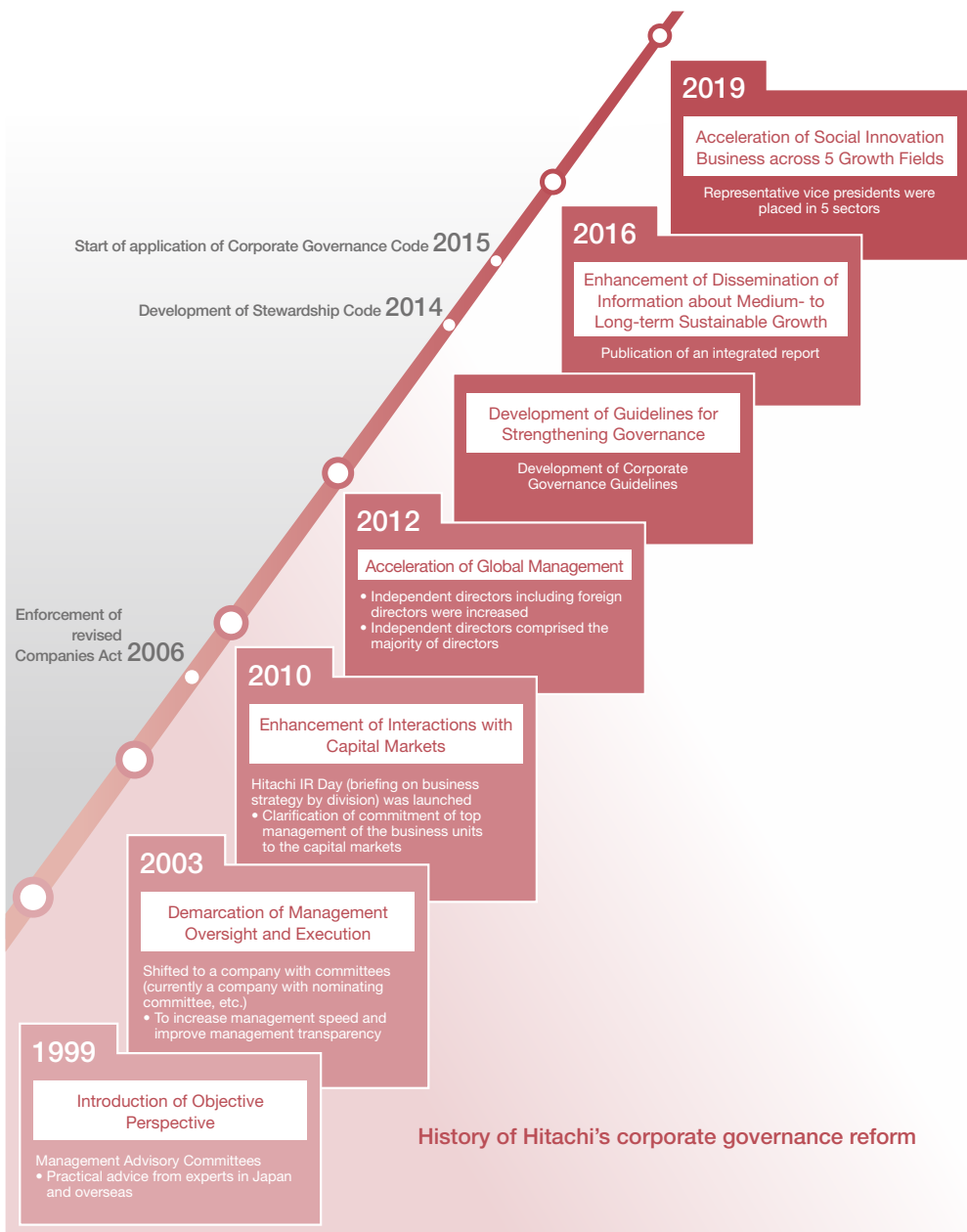## Basic Approach

Policy

Hitachi is a company with nominating committee, etc. under the Companies Act of Japan.
In June 2003, we changed our organizational design, separating the oversight of management from execution of management. By demarcating responsibilities for management oversight and those for the execution of business operations, Hitachi is working to create a framework for nimble operations, while making management highly transparent.

In June 2012, we ensured that 7 of the 13 members of our Board of Directors were independent directors[1], and that some of these independent directors were non-Japanese. These changes will help us to establish management that reflects diverse global perspectives and strengthen our supervisory functions.

Starting in June 2015, Corporate Governance Code of Japan (the "Code") was applied to companies listed on Japanese stock exchanges. In 2012, Hitachi formulated and published Corporate Governance Guidelines as a set of enhancing principles and as a framework for corporate governance that includes criteria for determining the roles and composition of the Board of Directors, director appropriateness and the independence of independent directors.

Hitachi agrees with the basic approach of the Code, which is that the Code's appropriate implementation will contribute to the development and success of companies, investors and the Japanese economy as a whole through individual companies' self-motivated actions, so as to achieve sustainable growth and increase corporate value over the medium- to long-term. Moving forward, Hitachi will work to further strengthen corporate governance.

[1] The "Independent Directors" are the directors who fulfill the qualification requirements to be outside directors as provided for the Companies Act of Japan and also meet the independence criteria defined by the Company and those provided by Japanese stock exchanges where the Company is listed.

History of Hitachi's corporate governance reform

2019
Acceleration of Social Innovation Business across 5 Growth Fields
Representative vice presidents were placed in 5 sectors

Start of application of Corporate Governance Code **2015**

2016
Enhancement of Dissemination of Information about Medium- to Long-term Sustainable Growth
Publication of an integrated report

Development of Stewardship Code **2014**

Development of Guidelines for Strengthening Governance
Development of Corporate Governance Guidelines

2012
Acceleration of Global Management
• Independent directors including foreign directors were increased
• Independent directors comprised the majority of directors

Enforcement of revised Companies Act **2006**

2010
Enhancement of Interactions with Capital Markets
Hitachi IR Day (briefing on business strategy by division) was launched
• Clarification of commitment of top management of the business units to the capital markets

2003
Demarcation of Management Oversight and Execution
Shifted to a company with committees (currently a company with nominating committee, etc.)
• To increase management speed and improve management transparency

1999
Introduction of Objective Perspective
Management Advisory Committees
• Practical advice from experts in Japan and overseas

Implementing All of the Principles of the Corporate Governance Code

We are implementing all of the principles of the Corporate Governance Code.

Analysis and Evaluation of the Effectiveness of the Board of Directors

The Company evaluates the effectiveness of its Board of Directors as a whole each year, in a continuous effort to maintain and improve its functions.

Fiscal 2018 Evaluation Process

1. Questionnaire-based self-assessment for each director (February–March 2019)	Points of evaluation • Composition of Board of Directors: Member diversity, numbers and ratios of independent directors and inside directors, etc. • Operation of Board of Directors: Meeting frequency, discussion time, proposal selection, role of chairperson, etc. • Contribution: Contribution to management strategy formulation and other matters, member demonstration of experience and knowledge, etc. • Status of committee activities: Composition, responsibilities and roles, collaboration with Board of Directors, etc. • Operation supporting system: delivery of information e.g., provision of documents for the Board
2. Discussions held by independent directors (March 2019)	• Independent directors held an exclusive meeting to discuss the effectiveness of the Board of Directors.
3. Discussion and review within the Board of Directors (May 2019)	• The Board of Directors holds a discussion based on the results of the questionnaire-based self-assessment and discussions conducted in the exclusive meeting attended by independent directors, comparing these results to those of the previous year and considering the statuses of related initiatives. Through this discussion the Board of Directors analyzes and evaluates its overall effectiveness and identifies policies through which it can increase this effectiveness.

Evaluation Results and Future Initiatives

Overall evaluation in fiscal 2018	
Overall evaluation in fiscal 2018	Fiscal 2018 evaluations determined that membership in our Board of Directors was sufficiently diverse. They also indicated the Board of Directors' overall effectiveness was satisfactory due in part to its active discussions aimed at medium- to long-term growth in corporate value. Each director was found to have contributed his or her own knowledge to these discussions, which were primarily focused on points related to management strategy, including the Mid-term Management Plan.
Future initiatives	
Maintenance and improvement of Board of Director functions	• Determine the Company's medium- to long-term strategic direction and further contribute to the formulation of business strategies • Raise contribution to CEO succession planning • Conduct thorough and continuous monitoring of important matters
Enhancement of support to operation of the Board of Director	• Continue to create opportunities to share information, including independent directors visit to Group locations • Apply ingenuity to improve the design and content of documents and work to consistently provide them in advance

Corporate Governance Framework
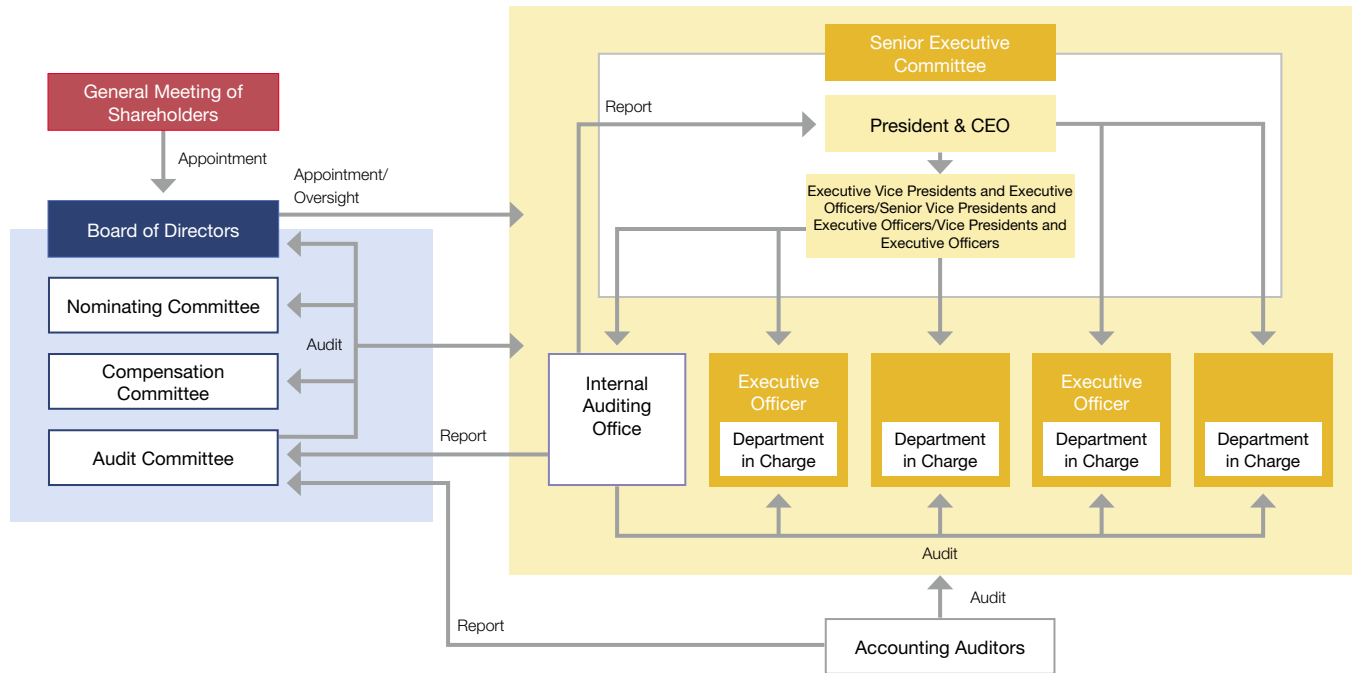
Within the Board of Directors, there are 3 statutory committees—the Nominating Committee, the Audit Committee, and the Compensation Committee—with independent directors accounting for the majority of members of each committee. The Board of Directors meetings were held on 12 days during the fiscal year ended March 31, 2019, and the attendance rate of directors at these meetings was 96%. The attendance rates for each independent director were as shown in the table on the next page. To assist with the duties of the Board of Directors and each committee, staff who are not subject to orders and instructions from executive officers are assigned.

(1) Nominating Committee

The Nominating Committee has the authority to determine proposals submitted to the general meeting of shareholders for the election and dismissal of directors. The Nominating Committee consists of 4 directors, 3 of whom are independent directors. The Nominating Committee meetings were held on 9 days during the fiscal year ended March 31, 2019.

Board of Directors

The Board of Directors approves basic management policy for Hitachi Group and supervises the execution of the duties of executive officers and directors in order to sustainably enhance corporate value and shareholders' common interests. The basic management policy includes the Mid-term Management Plan and annual budget compilation. The Board of Directors focuses on strategic issues related to the basic management policy as well as other items to be resolved that are provided in laws, regulations, the Articles of Incorporation, and Board of Directors Regulations. The Board of Directors was made up of 11 directors, 2 of whom concurrently serve as executive officers. Hitachi aims to reinforce the oversight function of the Board of Directors, of which 8 independent directors, including non-Japanese, account for the majority, reflecting their global and diverse viewpoints. The term of office for directors is 1 year.

(2) Audit Committee

The Audit Committee has the authority to audit the execution of duties of directors and executive officers and to decide on proposals submitted to the general meeting of shareholders for the election and dismissal of accounting auditors. The Audit Committee consists of 5 directors, including 4 independent directors and 1 standing Audit Committee member. The Audit Committee meetings were held on 17 days during the fiscal year ended March 31, 2019.

(3) Compensation Committee

The Compensation Committee has the authority to determine remuneration policies for directors and executive officers and remuneration for individuals (including amounts of remuneration) based on them. The Compensation Committee consists of 4 directors, 3 of whom are independent

directors. The Compensation Committee meetings were held on 6 days during the fiscal year ended March 31, 2019.

The Board of Directors continuously supervises succession planning for the CEO. The CEO is appointed or dismissed in line with the proposal of the Nominating Committee in consideration of the matters: 1) that the candidate has the highest personal and professional ethics, integrity, insight, and leadership, and 2) that the candidate is believed to be the one most qualified to realize sustainable enhancement of the Company's corporate value and shareholders' common interests, with rich experience and a distinguished record in the area of corporate management.

Furthermore, Hitachi formulated and published Corporate Governance Guidelines outlining the framework of corporate governance, such as the function and composition of the Board of Directors, qualifications for directors, criteria for assessing the independence of independent directors, and rules on those serving concurrently as officers at other companies.

🖱 Corporate Governance Guidelines of Hitachi, Ltd.

Attendance at Meetings of the Board of Directors by Independent Directors in the Fiscal Year Ended March 31, 2019

Name	Attendance / Number of days on which the meetings were held[1]			
	Board of Directors	Nominating Committee	Audit Committee	Compensation Committee
Katsumi Ihara	100%	—	100%	100%
Cynthia Carroll	100%	100%	—	—
Joe Harlan	100%	—	—	—
George Buckley	100%	—	—	—
Louise Pentland	100%	—	—	—
Harufumi Mochizuki	◎100%	◎100%	100%	◎100%
Takatoshi Yamamoto	100%	—	100%	100%
Hiroaki Yoshihara	92%	100%	◎100%	—

[1] Number of days during term of office during on which Board of Director meetings were held: 12 (9 in the cases of Mr. Ihara and Harlan)
Number of days during term of office on which Nominating Committee meetings were held: 9 (7 in the case of Mr. Yoshihara)
Number of days during term of office on which Audit Committee meetings were held: 17 (11 in the case of Mr. Ihara)
Number of days during term of office on which Compensation Committee meetings were held: 6 (5 in the case of Mr. Ihara)
◎ Indicates role as board or committee chairperson

Executive Officers

Executive officers decide on matters delegated to them by the Board of Directors and execute Hitachi's business affairs within the scope of assignments determined by the Board of Directors. As of the end of June, 2019, Hitachi has 39 executive officers.

Senior Executive Committee

The Senior Executive Committee is a council to ensure that the President deliberately decides on important managerial matters, which may affect the business of Hitachi or the Hitachi Group, through discussion from diverse viewpoints. This committee consists of 12 members as of the end of June, 2019: the president and CEO, 6 executive vice president and executive officers, 4 senior vice president and executive officers, and 1 vice president and executive officer.

Director and Executive Officer Compensation

Basic Policy
- Compensation shall be such that it enables the Company to attract necessary personnel to achieve an improvement in corporate value through global business growth.
- Compensation shall be commensurate with roles and responsibilities of each Directors and Executive Officers.
- Compensation for Directors shall be such that it enables them to exercise functions of supervision of management effectively.
- Compensation for Executive Officers shall be such that it enables them to contribute to sustained improvement in corporate value through the execution of business and employs an appropriate balance between short-term performance and medium- and long-term performance.
- The level of compensation shall be determined taking into account compensation levels at other companies as well as economic and market trends.
- The Compensation Committee utilizes external experts to gain expert advice and an objective viewpoint, if necessary, for considering the details and amounts of compensation.

Compensation Structure

(1) Directors

Compensation for directors is basic remuneration as fixed pay. The amount of basic remuneration is decided by adjusting a basic amount to reflect full-time or part-time status, committee membership and position, and travel from place of residence, etc. A director concurrently serving as an executive officer is not paid compensation as a director.

(2) Executive Officers

Compensation for executive officers consists of basic remuneration as fixed pay, and short-term incentive compensation and medium- and long-term incentive compensation as variable pay. The basic amount of each type of compensations is set based on the ratio of 1:1:1 as the standard from compensation for the fiscal 2019, taking into account the composition of executive compensation for major global companies, in order to improve corporate value through the growth of global businesses. The higher position of executive officers holds, the higher proportion of variable pay is set to the total annual compensation.

If it is found that an executive officer has been engaged in misconduct during his/her term of office, compensation for executive officers that has been already paid shall be returned to the Company (clawback provision).

Please refer to Compensation to Directors and Executive Officers on P. 75–80 of *Annual Securities Report*.

Annual Securities Report

Compensation to Executive Officers (FY2019) · Frameworks and Systems

| Total remuneration				
Fixed pay (Basic remuneration)	Variable pay			
	Short-term incentive compensation The amount of short-term incentive compensation is decided within the range of 0 to 200% of a basic amount set according to the relevant position by adjusting that amount to reflect financial results and individual performance.			Medium- and Long-term incentive compensation The shares of restricted stock are granted in order to propel management from a medium- and longterm perspective and to provide incentives to bring about a sustainable increase in enterprise value by further promoting senior management's shared values with shareholders through the holding of shares during their term of office.
	Individual target-linked component	Performance-linked component		The shares of restricted stock
		Company performance	Division performance	
Set according to the relevant position by adjusting that amount to reflect financial results and individual performance.	Varies according to the evaluation of the level of achievement of individual target for each executive officer determined based on his/her responsibility.	Evaluated referring to consolidated revenues, adjusted operating income, EBIT, and net income attributable to Hitachi, Ltd. stockholders in order to measure the level of achievement of consolidated financial forecasts disclosed to stakeholders, including shareholders and investors.	Evaluated referring to adjusted operating income and operating cash flows for each division, among other indicators, to measure the level of achievement of targets under the Midterm Management Plan and the annual budgets for divisions.	• The restriction on transfer shall be lifted if executive officers resign from all of the positions of the Company's executive officer, director, and corporate officer. • With regard to one-half of granted shares of restricted stock, the number of shares whose transfer restriction is lifted shall be determined after ex-post evaluation in which the total shareholder return of Hitachi stock is compared to growth rate of TOPIX. Lifting of transfer restrictions shall apply to all granted shares if the TSR/TOPIX Growth Rate Ratio is 120% or more. Lifting of transfer restrictions shall apply to part of granted shares if the TSR/TOPIX Growth Rate Ratio is between 80% or more but less than 120%[*1]. Transfer restrictions shall not be lifted for any shares if the TSR/TOPIX Growth Rate Ratio is less than 80%. Shares whose transfer restrictions are not lifted shall be acquired by the Company without consideration. *1 Number of shares whose transfer restrictions are lifted = Number of granted shares × { (TSR/TOPIX Growth Rate Ratio × 1.25) − 0.5}

Internal Control over Financial Reporting

To ensure the reliability of its consolidated financial reporting, the Hitachi Group is establishing and implementing relevant internal controls. We evaluate their effectiveness by adhering to standards for the evaluation of internal controls related to financial reporting that are generally accepted as fair and reasonable.

Furthermore, we have established the J-SOX Committee with the goal of raising the effectiveness of these internal controls. This committee evaluates internal control effectiveness and establishes frameworks designed to improve and strengthen them.

Internal Control Assessment Framework
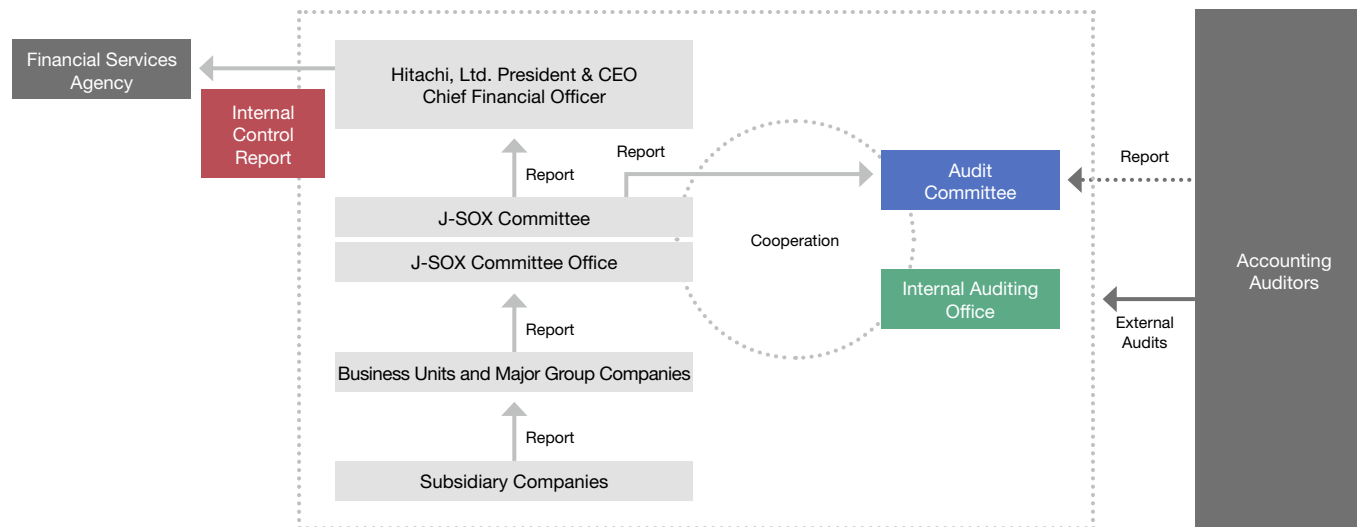
Enhanced Collaboration Through Tripartite Audits

In pursuit of sustainable growth in corporate value, Hitachi's Audit Committee and internal audit section collaborate with third-party accounting auditors to strengthen its "tripartite auditing," which aims to increase the effectiveness of internal controls. Our Audit Committee takes the lead in this regard, as the three parties communicate closely to share risk information and assessments concerning risk response while securing transparency and ensuring appropriate checks and balances.

Improving Internal Control Through a "Tripartite Audit" Function
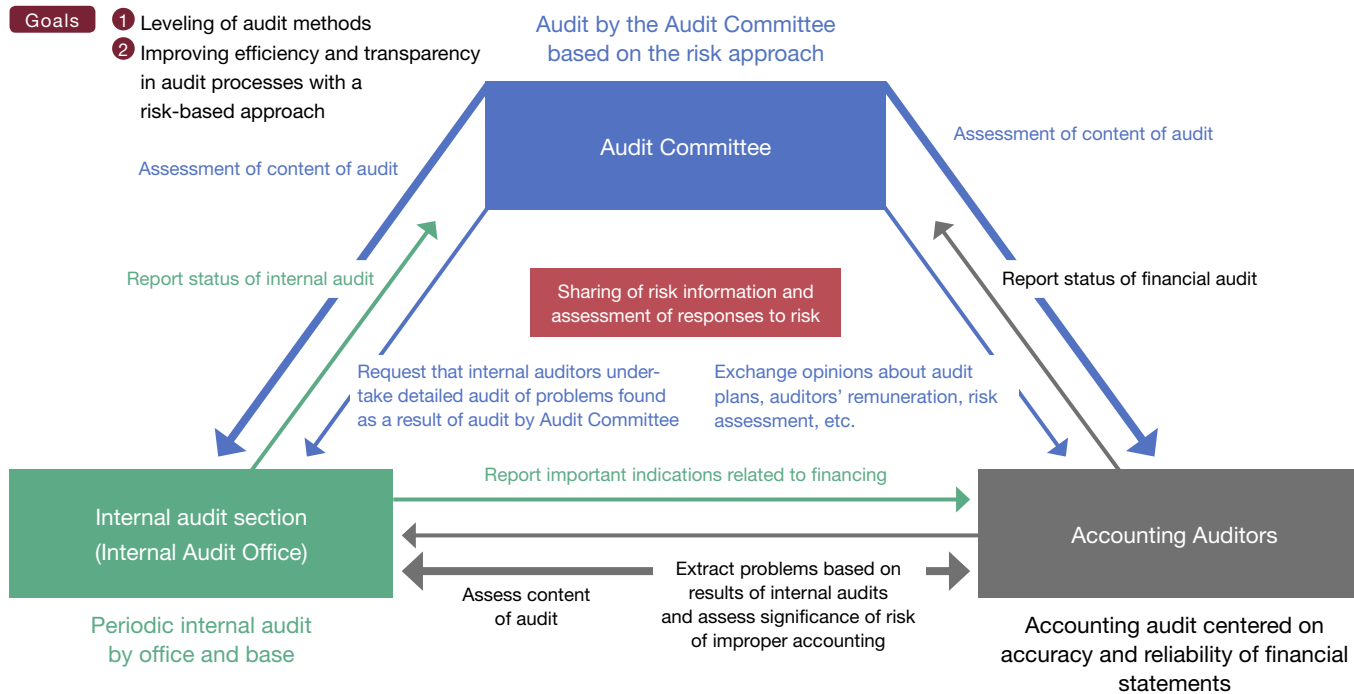
Building a More Effective and Efficient Auditing System

Our Audit Committee formulates audit plans in accordance with its risk-based approaches and conducts audits for each consolidated business unit. Audit Committee members meet directly with business unit heads before the internal audit section's audits are carried out. Then, these members inform the internal audit section about concerns and issues related to the implementation of business strategies aimed at achieving sustainable growth that require attention. At this time, Hitachi also verifies matters that carry high levels of risk in terms of quality, measuring these risks through employee awareness surveys and thorough implementation of business strategies.

Hitachi's internal audit section performs regular internal audits at each business site and location. This section reports directly to the CEO and is independent from organizations that are subject to its audits. The internal audit section also formulates audit plans based on past audit records and the most recent business circumstances. Additionally, this section performs audits upon receiving direction from the Audit Committee, ensuring their effectiveness.

The internal audit section at Hitachi is responsible for confirming the legality and appropriateness of all business operations, including those related to accounting, production management, sales, purchasing, IT systems, compliance and personnel labor. Furthermore, employees are well versed in the ideas and policies of our management and, acting on behalf of our management team, confirm whether operations are being carried out based on these ideas and policies and if business strategies are being implemented in a way that will efficiently lead to sustainable growth.

To further raise audit effectiveness, we implemented a "executive auditor" system in each of our 5 growth sectors (IT, energy, industry, mobility, smart life) in April 2019. We also established internal control systems which are headed by

executive auditors who report to the vice presidents who manage each sector. Although these executive auditors do not act as legal agents under the Companies Act, they still assume responsibility for governance in each sector. They also function as a reporting line for statutory auditors at Hitachi subsidiaries who are legal agents under the Companies Act and are working to improve the efficiency of our internal control systems.

When conducting business audits, we use IT systems to expeditiously search for reference information contained within materials submitted prior to audit in an attempt to improve efficiency. We are currently building a system that will allow our internal audit section to share information with professional accounting auditors using the Lumada platform's data lake and expect it to be complete sometime in fiscal 2020. When reading audit reports submitted by the internal audit section, our CEO must be able to quickly understand the issues identified by these reports and make prompt judgments concerning whether immediate action is required. In the future, our internal audit section will continue to maintain its transparency and independence while working to improve audit efficiency as one member of our tripartite audit system.

Our accounting auditors perform audits that focus on the accuracy and reliability of our financial statements. First, they adopt a risk-based approach in response to the Group's overall financial status. Applying this approach, they then determine the scope and methods of the audit, formulate an audit plan and share opinions with the Audit Committee. Next, based on the audit plan, they perform audits on each of the 5 growth sectors and the business units that comprise them, enabling effective and efficient understanding of data related to Hitachi's finance department and each of its business segments. If, during the auditing process, our accounting auditors discover a degree of risk that could impact future financial statements significantly or issues that, even if monetarily small, could have a large qualitative effect, they share related information regarding these risks and issues and progress on response from related divisions with the Audit Committee and internal audit section. They also work to improve and raise the effectiveness of audits by submitting "management letters" containing points of concern and improvement suggestions through the accounting department. Recently, they have also been working to raise the efficiency of checks on the accuracy of numerical figures by using IT systems to investigate all cases, rather than performing test-checking through sampling.

Compliance

Hitachi's Approach

With the globalization of the economy, borderless corporative activities—spanning countries and regions with different governmental and economic frameworks, trade practices, and sets of values—are increasingly vital. Spreading understanding of and respect for norms among all Hitachi Group employees is a fundamental management issue as we seek to rigorously implement fair business practices and avoid risks around the globe. Hitachi has formulated in-house regulations in line with widely accepted international standards to govern important business practices such as bribery prevention and the ensuring of fair competition, and these regulations are conveyed and strictly enforced across the Hitachi Group.

Additionally, as we pursue sustainable management, in order to realize value creation that contributes to the resolution of social issues, we disseminate and share both the Hitachi Group Identity, an integrated set of principles including our management vision and values, and the Hitachi Group Codes of Conduct, which spell out decision-making procedures and actions for all Hitachi Group executives and employees.

Our Impact on Society

No. of employees (consolidated)

Japan: **162,000**

Outside Japan: **133,000**

Our Performance

No. of participants of compliance e-learning for preventing bribery and corruption and violations of fair competition laws (8 languages)

More than **150,000**

Sharing Our Codes of Conduct and Values Across the Group

The Hitachi Group Codes of Conduct

Hitachi, Ltd. formulated the Hitachi, Ltd. Standards of Corporate Conduct in 1983, followed by the Hitachi Group Codes of Conduct in 2010 that the entire Group pledges to uphold.

In April 2018, we revised the Hitachi Group Codes of Conduct based on our philosophy that corporate activities should meet the needs of the times, such as the SDGs, toward a sustainable society, human rights and building a work environment, and various types of crisis management.

Hitachi Group Codes of Conduct

Ensuring Awareness of the Hitachi Group Codes of Conduct

The Hitachi Group Codes of Conduct are available in Japanese and 13 other languages—including English and Chinese—and shared with Hitachi Group employees around the world. The Codes of Conduct are based on global standards in a range of areas, including the SDGs, and an e-learning tool has been made available in Japanese and 13 other languages to encourage a deeper understanding of them.

Additionally, the Hitachi Group performs an annual employee survey on awareness of matters such as business ethics and compliance as part of its efforts to cultivate a healthy corporate culture.

Compliance Framework

As an organization with global business activities, Hitachi is expected to have a compliance framework based not only on the laws and regulations in the regions and countries where we operate but on global standards. In 2016, Hitachi reviewed and reorganized the regulations and guidelines including on compliance with competition laws, prevention of antisocial transactions, and prevention of bribery and corruption that had been set independently, and established the

Hitachi Global Compliance Program, a new integrated system of rules headed by the Hitachi Group Codes of Conduct. This program is being implemented seamlessly across the global organization.

To implement this program, we have appointed a senior executive as the head of risk management for the entire Hitachi Group, to supervise management-level risk management executives from business units and key Group companies. Under this system, policies and measures are shared through the Compliance Management Conference, composed of these risk management executives. Each executive is assisted by a compliance manager who implements practical support measures. We also support Group companies outside Japan and have appointed compliance heads in 11 regions, responsible for implementing education and sharing information as well as arranging consultation services with outside attorneys.

Issues in the promotion of compliance measures are clarified through individual dialogue with business units and key Group companies, while the internal audit section regularly conducts Group-wide reviews to verify that each area of compliance is being appropriately operated. In cases where these reviews identify necessary improvements, corrective measures are swiftly implemented. Hitachi, Ltd. also convenes an Advisory Committee of outside experts to gain new insights into compliance and apply them proactively in its own efforts.

Compliance Reporting System

Hitachi has instituted a Compliance Reporting System allowing reports to be made to the compliance section or directly to external lawyers to prevent illegal and unethical behavior, to promptly address infractions, and to enhance its ability to self-regulate.

This system can be used not only by employees within the Hitachi Group but also by temporary staff and business partners, such as suppliers and distributors. Reports can be made about matters that contravene social justice, such as improper treatment—including acts that are illegal or against regulations—and human rights issues. Suspected violations of competition and

anti-bribery laws can be reported anonymously.

The facts related to all reports are subject to thorough investigation and checking, and people who have identified themselves in the reports are informed of the investigation results. We make every effort to deal with situations as appropriate, including taking remedial action where necessary. We will continue to maintain and review the system, prioritizing the protection of whistleblowers. In fiscal 2018, in Japan, we applied for recognition under the Whistleblowing Compliance Management System (with self-declaration of conformity) implemented by the Consumer Affairs Agency, and our registration was accepted in July 2019.

In addition, we have implemented the Channel to the Board of Directors system to allow all Hitachi, Ltd. employees to directly report problems anonymously or under their real names to Hitachi directors in cases where they see any illegality or extreme inappropriateness in business conduct by division heads, executive officers, or other management personnel.

Compliance Reporting Achievements   `Objectives, Activities, and Achievements`

In fiscal 2018, we received 462 reports from all Group companies in Japan and around the world.

Additionally, the Hitachi Group performs an annual employee survey on awareness of matters such as business ethics and compliance as part of its efforts to improve the effectiveness of the Compliance Reporting System.

Prevention of Antisocial Transactions   `Policy` `Frameworks and Systems`

To cut off all relationships with organized crime groups and other antisocial forces, in the Hitachi Group Codes of Conduct we have laid out provisions stating that we will never engage in antisocial transactions under any circumstances in any part of the world, and will refuse any improper demands and unfair deals. To this end, we conduct eligibility checks on new as well as existing business partners and, in Japan, include antisocial force rejection clauses in contracts so that if it is determined that a business partner belongs to an antisocial force, we can promptly void the contract and end the relationship. The entire Hitachi Group acts decisively to eliminate approaches

from antisocial forces in partnership with external specialist institutions (the National Center for the Elimination of Boryokudan or the police).

Thorough Export Controls   `Policy` `Frameworks and Systems`

For basic export control policies, we have adopted the Hitachi Group Codes of Conduct, which state: "We will help maintain international peace and security through compliance with all applicable laws and regulations concerning import and export, and will operate appropriately according to our internal rules and policies." Hitachi, Ltd. has established Corporate Regulations concerning Security Export Control based on this policy to carry out strict export control practices in line with relevant laws and regulations, screening all goods and technologies intended for export against such factors as destination countries and regions as well as intended end use and end users. We provide guidance and educational support for the formulation of regulations and the establishment of frameworks to Hitachi Group companies in Japan and around the world to ensure that all Group companies follow the same export control policies in accordance with relevant laws and regulations.

At present, as part of our educational program for all Group companies within and outside Japan, we host training sessions and workshops on export control in addition to the implementation of an e-learning program in Japanese, English, and Chinese. Moving forward, we will continue to make an effort so that export control is thoroughly enforced throughout the Group.

Solidifying the Hitachi Group Identity   `Objectives, Activities, and Achievements`

To help us solve social issues through understanding and embodiment of the Hitachi Group Identity, our brand management must engage everyone in the Group. We use channels, including our intranet, to ensure that Group employees are clearly aware of what needs to be done to express the Hitachi Group Identity. To promote understanding of and familiarity with the Hitachi Group Identity and the Hitachi Brand, we launched the Inspiration of the Year Award in fiscal 2003 to share activities within Hitachi that have demonstrated the Hitachi Group Identity and

made an outstanding contribution to our brand value. In fiscal 2012, we began evaluating applications globally, renaming the program the Inspiration of the Year Global Award. In fiscal 2018, the award saw 198 applications from various regions, including the Americas, China, Europe/Middle East/Africa, India, Japan/South Korea/Oceania, and Southeast Asia. Outstanding activities from each region were highlighted on the intranet, and the president presented the award at a ceremony held at our Tokyo headquarters.

To further instill the Hitachi Group Identity and promote understanding of the Hitachi Brand among our employees globally, we held brand-training sessions utilizing the Hitachi Brand Book, which explains the Hitachi Group Identity and Hitachi Brand, and the "Hitachi Group Identity Movie—I am Hitachi," a visual depiction of the ways in which Hitachi Group employees are working to address society's challenges.

Hitachi Group Identity

Promoting Work Practices in Line with International Ethics Codes

Framework for Promoting Compliance with International Ethics Codes

Frameworks and Systems

By periodically matching our list of existing Group-wide business partners against an external compliance database under the Hitachi Global Compliance Program (HGCP) and incorporating the results into the headquarters' platform, we are promoting the standardization of due diligence levels across the Group. To reinforce education at business units and key Group companies, we also bring together program instructor candidates and provide them with instructor education.

Compliance Framework

Policies for Preventing Bribery and Corrupt Practices

Policy

Preventing bribery and corrupt practices is a big challenge for a company today. In 2008 Hitachi established rules against bribery and corruption for the HGCP along with guidelines indicating specific spending thresholds for entertainment, gifts, and other arrangements provided to public officials. We have striven to ensure strict compliance with these rules. In 2016 we introduced a policy banning facilitation payments, which had not been explicitly regulated, along with revisions including clarification of due diligence procedures for business partners.

Educational Activities for Preventing Bribery and Corrupt Practices

Objectives, Activities, and Achievements

To ensure awareness of the HGCP rules and policies concerning prevention of bribery and corruption and compliance with competition law, we developed a global e-learning program about them and made it available in 12 languages—including Japanese, English, and Chinese— for use by Group companies worldwide. In fiscal 2018, more than 150,000 employees across the Hitachi Group, including executives, completed the e-learning program.

Competition Law Compliance Policy

Policy

Hitachi engages in business based on the principles of conformance with the law and business ethics and fair and open competition. In 2015, we included business standards and guidelines related to these principles in the HGCP, in addition to rules concerning competition law.

Preventing Violations of Competition Law

As with our initiatives against bribery and corrupt practices, we are developing educational activities globally using e-learning material available in 12 languages—including Japanese, English, and Chinese—while at the same time ensuring that we comply with the HGCP's rules concerning competition law and other related business standards and guidelines.

In 2017, to enhance awareness of ethical principles and practices globally, we created a global version of our standards regarding contact with competitors based on the standards originally prepared for use in Japan.

Eliminating violations of competition laws is among our top priorities for regaining trust, and so Hitachi will continue its efforts to prevent the recurrence of any such incident. We have been providing a collection of case studies for workplace discussion to Group companies since 2012, and in 2018 we added case studies about competition law in three languages, Japanese, English, and Chinese, to raise employee awareness.

Hitachi's Tax Compliance Approach

The global expansion of Hitachi's business activities has made it necessary for the Group as a whole to build a system of tax governance in order to comply with indications made by the tax authorities in each country and respond to risks concerning taxation, such as tax-related legal proceedings. In January 2016, we established a set of tax-related regulations with which the entire Group must comply, and in April 2017 we set rules for Group transfer pricing management. In connection with the globalization of our business, we are implementing risk management for taxation that focuses in particular on the points listed below:

(1) Group companies strictly comply with all relevant laws and implement tax management when pursuing their business activities, bearing in mind such international tax-compliance standards as the Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations of the Organisation for Economic Co-operation and Development (OECD), as well as that body's Action Plan on Base Erosion and Profit Shifting (BEPS).

(2) Group companies effectively, continually, and proactively manage tax-related issues as socially responsible organizations, while maintaining Hitachi brand value and seeking to maximize shareholder value.

(3) Group companies build sincere and positive relations of trust with the tax authorities in the regions where the companies do business, and strive to maintain and develop those relations.

Tax Compliance Initiatives

To ensure risk management for taxation in response to globalization, Hitachi follows relevant tax-related regulations applicable to the Group as a whole as well as rules for transfer pricing management. We also manage transfer pricing in accordance with the OECD Transfer Pricing Guidelines and the laws and regulations on transfer pricing in each country or region where Group companies are located.

Violations of Laws and Regulations

In fiscal 2018, there were no incidents in which Hitachi violated or was penalized under laws or regulations regarding bribery or corrupt practices and competition. Regarding tax compliance, Hitachi acts in accordance with all applicable laws and regulations and did not have any significant fines or nonmonetary sanctions for noncompliance with tax laws and regulations.

Risk Management

Hitachi's Approach

Hitachi launched an Investment Strategy Committee in 2017 to ascertain and minimize risks and to strengthen the quantitative risk management of its investments. The Executive Sustainability Committee deliberates the social and environmental impact of our business activities to clarify any negative impact our business has on society and the environment and to identify countermeasures. We are reinforcing business continuity plans (BCPs) and further tightening our information security to ensure the stable supply of our products and services and to prevent threats to our networks that could severely disrupt business operations.

Our Impact on Society

No. of employees (Hitachi, Ltd.)

33,490

Our Performance

Recipients of e-learning programs on information security (Hitachi, Ltd.)

Approx. # 40,000

Addressing Risks and Opportunities
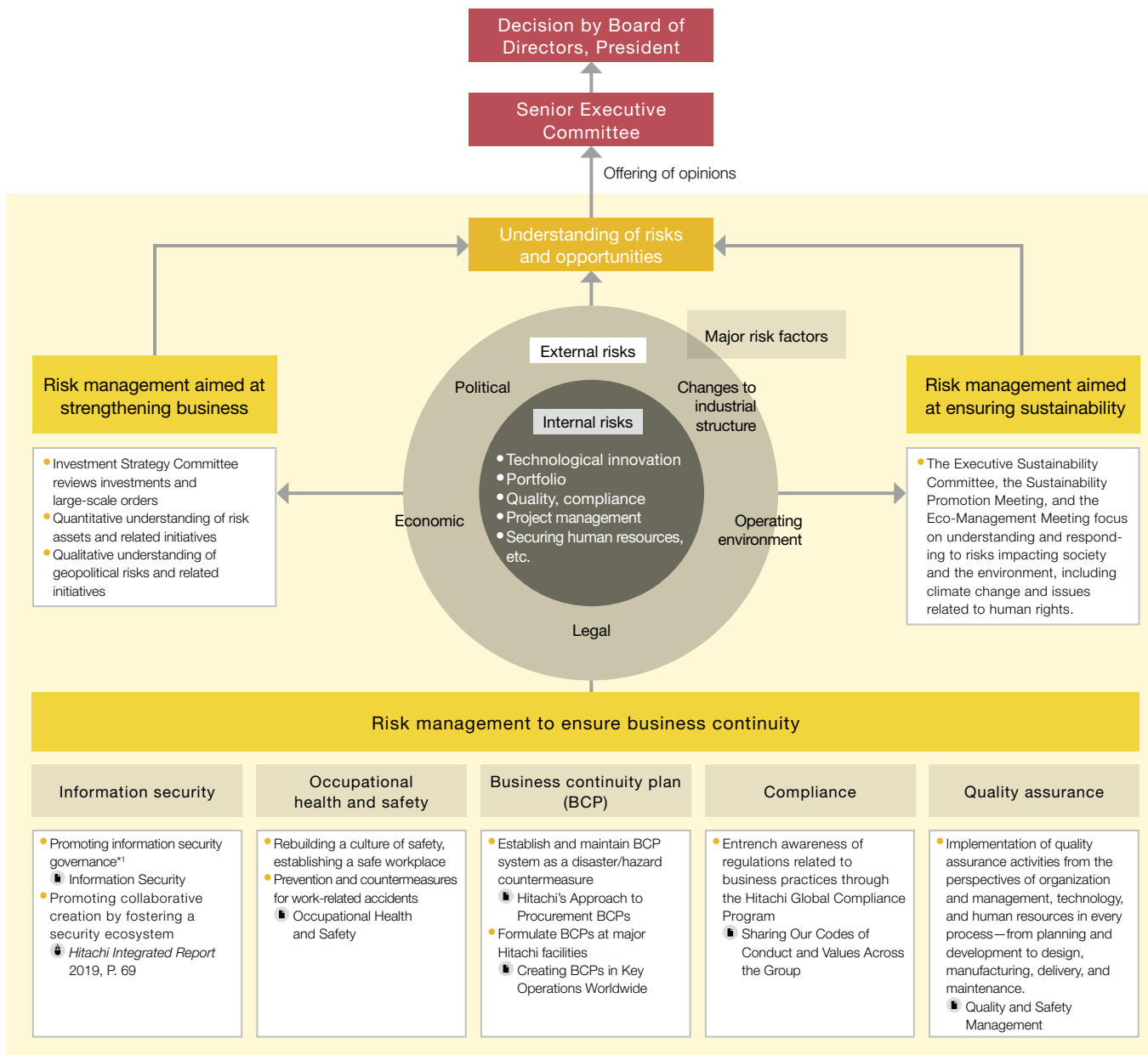
Risks and Opportunities

Hitachi's 2021 Mid-term Management Plan, beginning in fiscal 2019, focuses on expanding our business while making the best use of the Company's competitive advantages. In particular, we target investment for growth in select, focused areas over the three years through fiscal 2021 of ¥2.0–¥2.5 trillion, compared to investment of about ¥500 billion in the three years through fiscal 2018. We believe taking advantage of growth business opportunities and implementing aggressive management requires a solid risk management system.

Hitachi established the Investment Strategy Committee to strengthen investment risk management in 2017 and continues to work to better understand risk and take appropriate action. The Company in the same year established the Executive Sustainability Committee to focus on the company's policies in regard to social and environmental issues. Our efforts in this area also included a move to identify issues that could be seen as business opportunities, as well as the negative effects on society and the environment from our business activities and the measures Hitachi is taking to address them.

Risk Management System

Frameworks and Systems

The business environment is changing day by day, impacted by the continued advance of information and communications technology, as exemplified by IoT, and geopolitical risks arising from complex shifts in political and economic conditions around the world. Hitachi aims to create new revenue opportunities while controlling risk. To do this, we maintain a clear understanding and analysis of the operating environment, taking into account social issues as well as our competitive advantages and management resources, and conduct risk management with an eye toward the many risks the Company should be prepared for as well as opportunities for growth.

Decision by Board of Directors, President

↑

Senior Executive Committee

↑ Offering of opinions

Understanding of risks and opportunities

Major risk factors

External risks

Political | Changes to industrial structure

Internal risks
- Technological innovation
- Portfolio
- Quality, compliance
- Project management
- Securing human resources, etc.

Economic | Operating environment

Legal

Risk management aimed at strengthening business
- Investment Strategy Committee reviews investments and large-scale orders
- Quantitative understanding of risk assets and related initiatives
- Qualitative understanding of geopolitical risks and related initiatives

Risk management aimed at ensuring sustainability
- The Executive Sustainability Committee, the Sustainability Promotion Meeting, and the Eco-Management Meeting focus on understanding and responding to risks impacting society and the environment, including climate change and issues related to human rights.

Risk management to ensure business continuity

Information security	Occupational health and safety	Business continuity plan (BCP)	Compliance	Quality assurance
• Promoting information security governance[*1] 📖 Information Security • Promoting collaborative creation by fostering a security ecosystem 📖 Hitachi Integrated Report 2019, P. 69	• Rebuilding a culture of safety, establishing a safe workplace • Prevention and countermeasures for work-related accidents 📖 Occupational Health and Safety	• Establish and maintain BCP system as a disaster/hazard countermeasure 📖 Hitachi's Approach to Procurement BCPs • Formulate BCPs at major Hitachi facilities 📖 Creating BCPs in Key Operations Worldwide	• Entrench awareness of regulations related to business practices through the Hitachi Global Compliance Program 📖 Sharing Our Codes of Conduct and Values Across the Group	• Implementation of quality assurance activities from the perspectives of organization and management, technology, and human resources in every process—from planning and development to design, manufacturing, delivery, and maintenance. 📖 Quality and Safety Management

*1 Information security governance works in support of corporate governance by building and maintaining an organization's internal control mechanisms related to information security.

Understanding and Responding to Quantitative Risk

In regard to quantitative risk, assumed maximum risk (value at risk) is calculated using statistical methods based on the type of asset held. More specifically, value at risk measures the maximum expected loss based on price movements over a specified period of time (observation period) at a given confidence level for a defined period of time moving forward. Visualizing the strength of a company's balance sheet and whether that company has the potential for growth, including by focusing on whether the maximum expected loss is within the range of net assets or whether there is room to invest in growth, limits the likelihood that opportunities for growth will be missed, while continued monitoring ensures that risks do not exceed management capabilities.

Moreover, analyzing risk by country and sector, while also taking into account future trends, allows a quantitative understanding of the concentration of risks in a given country or sector relative to profitability.

The Flow of Quantitative Risk Assessment

Management strategy
Reflected in
Executive level
Periodic reporting
Group risk capacity
Comparison with risk tolerance
Amount of risk in the group
Quantify using statistical methods

Credit risk	Business investment risk	Country risk	Risks, including business assets

Risk identification and analysis

Financial and non-financial data from within the group and information from outside organizations

Understanding and Responding to Qualitative Risk

In regard to qualitative risk, including geopolitical risk, we maintain a focus on the global political and economic situation by taking advantage of research from external organizations, and use this information to analyze the potential risks and opportunities for Hitachi so that we may take action to improve our corporate value. In addition, the Investment Strategy Committee examines investment projects and large orders, taking into account qualitative factors in addition to quantitative factors such as those listed below.

- Related technological innovations and competitive conditions
- Hitachi's past performance in the business
- Trends and market conditions, including prices and costs
- Business performance from ordering parties and their transaction history with Hitachi, etc.
- Contractual rights and obligations (transaction terms, reasons and details for damages and penalties)
- Local laws and labor practices in countries in which the business operates

Understanding and Responding to Risks and Opportunities Related to Sustainability

Social and environmental issues, including climate change, resource depletion, the curtailment of business activity due to significant disasters, and social instability due to growing inequality, are having a substantial impact on corporate value creation and business models.

Amid such a drastic change in the business environment, companies must have a clear understanding of opportunities and risks and take appropriate measures if they are to achieve sustainable growth over the long term.

Hitachi is able to gain a clear understanding of sustainability-related risks, and accordingly take appropriate action, thanks to the efforts of the Executive Sustainability Committee and other related committees. We remain actively engaged in promoting our own sustainable growth while contributing to the realization of a sustainable society by seeking out business opportunities contributing to the resolution of important domestic and overseas issues, including those relevant to the UN Sustainable Development Goals (SDGs) and Society 5.0.

Risk Factors

We conduct business on a global scale across a broad range of business areas and utilize sophisticated, specialized technologies to carry out our operations. Therefore, we are exposed to a wide range of risks related to our operations. The following risks are based on the assumptions we consider reasonable as of the date this report was issued.

For more information on business risks and other risks, please refer to our 150th *Annual Securities Report*.

Annual Securities Report

Major Risks and Opportunities

Major risk factors	Details on risks and opportunities	Company actions	
Fluctuations in product supply and demand, exchange rates and resource prices; insufficient raw materials, components	**Risks** • Price fluctuations, including for products, exchange rate impact and excess inventory • Exchange rate impact and price fluctuations, including for raw materials and components • Impact from significant disasters on supply chain	• Building close relationships with multiple suppliers • Ensuring an appropriate response to changes in demand in each region by promoting a local production and local consumption model for products and services • Heightening resistance to business interruption risks by formulating BCPs at domestic and major overseas facilities	Responsible Procurement / Stable Provision of Products and Services
Rapid technological innovation	**Risks** • Decreased competitiveness if development of cutting-edge technology, or application to product/service does not progress as expected • Reduction or elimination of existing market due to technological innovation **Opportunities** • Development of advanced technology leads to new business opportunities	• Promoting open innovation through industry-academia-government cooperation • Bolstering the digital workforce • Strengthen Lumada • Fostering an innovation ecosystem through the above	Research and Development (R&D) / Developing Human Capital for Frontline and Digital Operations
Securing human resources	**Risks** • Impact on new hires and worker retention due to increased competition to hire and retain the highly skilled workers **Opportunities** • Growth opportunities on the recruitment and retention of highly skilled workers that share the Hitachi vision	• Securing the highly skilled global workers using a global common standard for personnel • Securing and training the highly skilled workers through in-house educational systems, include Hitachi Academy, and Hitachi University, the group's global common learning management system	2021 HR Strategy / Developing Global Human Capital
Occupational health and safety	**Risks** • Impact on business due to inability to create healthy, safe and secure work environments	• Establishing a global occupational health and safety system that includes lessons learned from global operations, entrenchment of global norms, and the sharing of success stories	Occupational Health and Safety
M&A, investment in new projects, etc.	**Risks** • M&A aimed at strengthening the Social Innovation Business, investment in new projects, R&D investment/capex, failure related to insufficient project management in large-scale orders **Opportunities** • Building a foundation for growth through the acquisition of new management resources	• Implementing phase-gate management in each business unit (BU), analysis and discussion of market trends, strategies, acquisition prices, and the post-merger integration process at Investment Strategy Committee, Senior Executive Committee, Board of Directors, and Audit Committee	Independent Director Dialogue, *Hitachi Integrated Report 2019*, P. 18 / Corporate Governance
Geopolitical risks	**Risks** • Impact on Hitachi's overseas businesses due to global political, economic and social trends	• Regularly updating our understanding of global political and economic trends, analyzing the impact on our business, and swiftly implementing countermeasures on a groupwide basis	
Tighter laws and regulations	**Risks** • Tighter laws and regulations in regard to investment, exports, and customs duties Example: The effects on business activities from the introduction of new laws and regulations related to the protection of personal data, such as the General Data Protection Regulation (GDPR) in Europe	• Operating of personal information protection systems in line with Hitachi's personal information protection policy • Identifying businesses subject to GDPR, assessing risk, implementing appropriate safety management measures in line with those risks, implementing worker training	Rigorous Information Management / Information Security
Compliance	**Risks** • Reduced trust and a decline in corporate value as a result of corporate behavior that deviates from social norms and violates laws, including relating to bribery and anti-competitive activities	• Implementing groupwide compliance programs and establishing the highest values in the Codes of Conduct • Strengthening measures to prevent bribery and violation of competition laws	Compliance
Product quality and responsibility	**Risks** • Reduced trust and claims for damages due to defects or a deterioration in product and service quality as a result of the increased complexity/sophistication of products or services, or the diversification of production sites or suppliers	• Strengthening the quality assurance system • Activities aimed at preventing accidents • Activities aimed at ensuring compliance with laws and regulations related to technology • Intensive risk assessment • Implementing measures to handle product accidents • Conducting quality and reliability-related training	Quality and Safety Management
Climate change/significant disasters	**Risks** • Impact on business activities due to measures in line with the tightening of international regulations to curb greenhouse gas emissions and the depletion of energy and resources • Impact on business activities, from production to sales, due to significant disaster affecting major Hitachi facilities in Japan or overseas **Opportunities** • Expansion in the decarbonization business through offering climate-change-related solutions	• Strengthening measures aimed at achieving the CO_2 reduction targets in the Hitachi Environmental Innovation 2050 • Enacting measures in line with an analysis of Hitachi risks and opportunities based on climate-related scenarios • Formulating BCPs to strengthen our ability to respond to business disruption risks	Achieving a Low-Carbon Society / Climate-related Information Disclosure (Based on TCFD Recommendations) / Stable Provision of Products and Services
Information security	**Risks** • Computer viruses or other factors adversely impacting information systems **Opportunities** • Expansion in revenue opportunities through increased demand for information security measures	• Promoting cybersecurity strategies through risk management and value creation	Information Security / Story of Value Creation in the IT Sector, *Hitachi Integrated Report 2019*, P. 54

Stable Provision of Products and Services

Hitachi's Thinking on BCPs   `Policy`

Given the close relation of our business to social infrastructure, we are enhancing our business continuity plans (BCPs) to ensure that the impact of risks does not disrupt our business and thereby significantly affect society. In December 2006, we issued the *Hitachi Group Guidelines for Developing Business Continuity Plans (Overview)* in Japanese. In fiscal 2010 this was translated into English and Chinese for distribution to all Hitachi Group companies worldwide to ensure our response readiness for large disasters and other risks.

Creating BCPs in Key Operations Worldwide   `Frameworks and Systems`

When the Great East Japan Earthquake struck in March 2011, quick responses and swift decision making were enabled by the BCPs that we had developed based on the *Hitachi Group Guidelines for Developing Business Continuity Plans (Overview)*. However, issues emerged, including identification of secondary and other suppliers, cloud storage and multiplexing of production information, and the need to secure alternate transportation and fuel sources. Based on the lessons learned from this disaster, in October 2011 we released and distributed new versions of the *Hitachi Group Guidelines for Developing Business Continuity Plans (By Department)* to further improve our BCPs.

By the end of fiscal 2011, Hitachi Group operations in Japan had completed their preparation and review of BCPs for both large earthquakes and novel strains of influenza as appropriate to their operations.

On top of these efforts, Hitachi, Ltd. has held annual earth-quake drills simulating a major seismic event at key operations in Japan since fiscal 1998. In March 2018, we held initial response drills at our headquarters under the direction of our head of Major Earthquake Countermeasures Office simulating a large earthquake in the suburbs of Tokyo, striving to promote understanding of each department's role and strengthen cooperation among departments. As part of countermeasures against large earthquakes striking the suburbs of Tokyo, in December 2017 we developed action plans including setting up substitute headquarters in the Kansai region in case our Tokyo headquarters cease to function temporarily due to such earthquakes. In March

2019, based on the scenario of an earthquake striking the Tokyo metropolitan area and significantly damaging its infrastructure, we established a substitute headquarters at our Kansai Area Operation and conducted initial response drills and joint drills with the response headquarters at our Tokyo headquarters according to our action plans.

Hitachi appointed personnel with responsibility for risk-response policies at its main overseas bases in fiscal 2013. By the end of that year, around 300 companies prepared BCPs with the goal of completing them for key operations. These BCPs are aimed at strengthening our ability to respond to business risks, including large disasters, novel strains of influenza, political instability, and social disruption, as well as acts of terrorism. Moving forward, we intend to further expand the scope of our BCPs.

Hitachi Group Guidelines for Developing Business Continuity Plans (By Department).

Earthquake simulation drill.

Hitachi's Approach to Procurement BCPs   `Policy`

We have a deep involvement in social infrastructures in places where the suppliers who are our business partners can be affected by major earthquakes and other natural disasters.

These disasters can heavily impact not only our business operations and those of our suppliers but also society as a whole. To minimize this impact, the procurement divisions in business units and key Group companies in Japan have created procurement BCPs that (1) standardize and use generic parts to make procurement as flexible as possible; (2) cultivate multiple suppliers;

(3) distribute production across several locations; (4) budget inventory strategically; and (5) consider substitute products.

Creation of Procurement BCPs `Frameworks and Systems`

To see whether or not procurement BCPs would be effective, we held desktop exercises to discuss in a group what should be done during and after a disaster, making further improvements as a result.

In fiscal 2018, all major Group business sites with production lines (approximately 210 sites in total) took steps to maintain and strengthen the procurement BCPs they had created by the previous fiscal year, thereby contributing to the continuation of Hitachi's global operations.

Improving Safety for Employees Sent to Dangerous Regions `Frameworks and Systems`

Responding to the hostage incident in Algeria in January 2013, then President Hiroaki Nakanishi reinforced his policy in February 2013 of ensuring the safety of employees sent to countries and areas at higher risk. Survey missions of in-house and outside experts are now sent beforehand to areas at high risk of war, terrorism, and other threats. Even after employees are dispatched to such areas, we conduct additional local surveys every six months as a means of confirming the effectiveness of our safety policies. In fiscal 2018, against the threat of terrorism expanding around the world and infectious diseases spreading regionally, we had in place a range of safety measures, including providing timely alerts to employees. This underscores our commitment to ensuring the safety of our employees working around the globe. Hitachi is also contributing to safety measures at other Japanese corporations operating outside Japan. To help enhance collaboration between the private and public sectors in this area, Hitachi executives participated in the Council for Public-Private Cooperation for Overseas Safety organized by Japan's Ministry of Foreign Affairs. Since 2014 Hitachi has taken part in public-private kidnap incident preparatory training exercises.

Information Security

Information Security Policies `Policy`

The increased connections between things due to development of IoT are creating new value. At the same time, increasingly sophisticated cyberattacks are widening their focus from traditional IT to include the IoT/OT field. Managing information security risks is one of the most critical issues for companies to minimize the risk of business disruption due to factors such as leaks of information or operational stoppages.

The development of the Social Innovation Business has highlighted for Hitachi the vital importance of information security governance as a key management issue. The Japan Business Federation's Declaration of Cyber Security Management that was published in March 2018 also placed emphasis on cyber security measures as a critical management challenge from the aspects of both value creation and risk management. Hitachi approaches the issue of information security governance based on the same concept.

At the same time, as a global company, we regard cyber security risk as one of our management risks. Accordingly, to allow us to declare both internally and externally Group policies for addressing this risk, we have formulated Information Security Policies in line with our corporate management policies and based on our cyber security risk management.

Information Security Policies

1. Formulation and continuous improvement to information security management regulations
2. Protection and continuous management of information assets
3. Strict observance of laws and standards
4. Education and training
5. Incident prevention and management
6. Assurance of fair business practices within the corporate group

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Three Principles for Preventing Leakage of Confidential Information

Hitachi, Ltd. has formulated the Three Principles for Preventing Leakage of Confidential Information to ensure the highest level of care for such information and to prevent leaks and other related incidents. Our policies specify that if an incident does occur, damage must be promptly minimized by contacting customers, reporting to government agencies, investigating causes, and acting to prevent any recurrence.

Three Principles for Preventing Leakage of Confidential Information

Principle 1: In principle, no confidential information shall be taken outside of the company's premises.

Principle 2: Any person taking confidential information out of the company's premises when necessary for conducting business shall obtain prior approval from the Information Asset Manager.

Principle 3: Any person taking confidential information out of the company's premises when necessary for conducting business shall carry out the necessary and appropriate measures to prevent information leakage.

Framework for Promoting Information Security

At Hitachi, Ltd. the senior executive with ultimate authority and responsibility regarding the handling of information security and personal privacy issues is appointed by the president and CEO. Hitachi established a position of chief information security officer (CISO) to oversee promotion of information security for all Hitachi products and internal facilities. In fiscal 2018, the CISO role was performed by an executive vice president.

Chaired by the CISO, the Information Security Committee determines all policies and procedures for information security and personal information protection. These decisions are conveyed to all Hitachi Group business sites and companies, and are implemented by the relevant information security officers.

Framework for Promoting Information Security
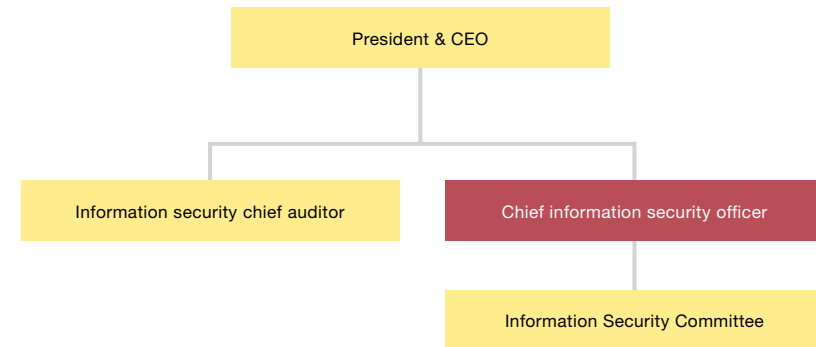
President & CEO — Information security chief auditor — Chief information security officer — Information Security Committee

Information Security Management

Hitachi Group companies worldwide reinforce their information security in line with our Global Information Security Administration Rules, which conform to the international ISO/IEC 27001 standard. These rules are globally distributed from the parent company in Japan to Group companies worldwide. Other measures include the provision of shared security services and related support for information security by the regional headquarters in the Americas, Europe, Southeast Asia, China, and India.

Security Monitoring

In Hitachi, the Security Operation Center (SOC) monitors security on a 24/7 basis so cyberattacks can be detected and countermeasures initiated right away. The Incident Response Team (IRT) collects and develops threat intelligence*1 and manages the response to any security incidents.

*1 Threat intelligence: An approach to countering cyber attacks using knowledge of new threats gathered from a range of information on cyber security.

Implementing Rigorous Information Security

Frameworks and Systems

The Information Security Committee determines policies and procedures for information security and personal information protection. The Information Security Promotion Council and other bodies convey decisions internally and to other companies in the Hitachi Group. Information security officers at business sites and companies ensure that these decisions are implemented in the workplace.

The Hitachi Group emphasizes two points in information security and personal information protection:

(1) Precautionary measures and prompt security responses

We clarify the principal systems and assets to be secured, using vulnerability and risk analyses to formulate companywide business continuity plans (BCPs) for cyber incidents and to implement safeguarding measures. We also have an emergency process manual for security breaches, based on the assumption that these are inevitable, and not just possible.

(2) Promoting stronger ethical and security awareness among data users
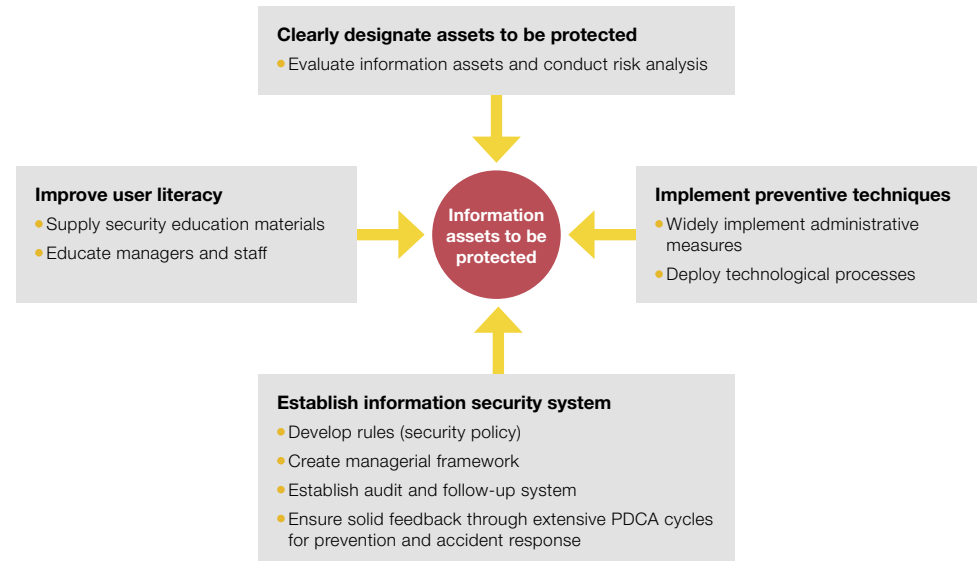
We have prepared a program tailored to Hitachi's various personnel levels and are working to raise the prevailing sense of ethics and security awareness through Group-wide e-learning. We are also conducting audits to identify and address problems early on.

Details, including a message from the CISO and a list of third-party assessments and certifications, are contained in Information Security Report 2018.

Information Security Report 2018

Basic Approach to Information Security Governance

Clearly designate assets to be protected
- Evaluate information assets and conduct risk analysis

Improve user literacy
- Supply security education materials
- Educate managers and staff

Information assets to be protected

Implement preventive techniques
- Widely implement administrative measures
- Deploy technological processes

Establish information security system
- Develop rules (security policy)
- Create managerial framework
- Establish audit and follow-up system
- Ensure solid feedback through extensive PDCA cycles for prevention and accident response

Preventing Information Leaks

Hitachi takes the following IT steps to prevent information leaks: encrypting devices; using thin clients;*1 employing electronic document access control and expiration processing software; maintaining ID management and access control by building an authentication infrastructure; and filtering e-mail and visited websites. In response to the recent spate of targeted e-mail attacks and other cyberattacks, we are participating in an initiative to share information between the private sector and the government. We are also enhancing our IT organization by adding more layers to our leak prevention procedures.

To ensure the secure exchange of information with our suppliers, we review their information security measures based on Hitachi's own standards before allowing them access to confidential information. We have provided tools to suppliers (procurement partners) for security education and for checking business information on computers. In addition, we require suppliers to check and remove business information from personal computers to prevent leaks.

*1 Thin client: A terminal with the minimum necessary software. Thin client computing significantly enhances cyber security by storing applications and data on the server.

Education on Information Security

Consistently maintaining information security requires all employees to continually develop their knowledge of information handling and to remain strongly aware of the issues. For this reason, we hold annual e-learning programs on information security and personal information protection for all directors, employees, and temporary employees.

Nearly all of the roughly 40,000 employees at Hitachi, Ltd. participate in these programs. We offer a variety of courses that have different goals and are tailored to different target audiences, including new employees, new managers, and information system administrators. In 2012, we also began simulation training to educate employees about malicious targeted e-mail attacks and other cyberattacks. Employees are sent examples of targeted e-mail to heighten their awareness of security through direct experience.

Our educational programs, available to Hitachi Group companies in Japan and other global regions, provide Group-wide education on information security and personal information protection.

Thorough Information Security Audits and Inspections ⊘

The Hitachi Group has developed its approach to security based on the "plan-do-check-act" (PDCA) cycle for its information security management system. We conduct annual information security and personal information protection audits at all Group companies and business units.

The president of Hitachi, Ltd. appoints officers to conduct independent audits. These officers are not allowed to audit their own units, underlining our commitment to fairness and objectivity in auditing. There are 220 Hitachi Group companies in Japan, including Hitachi, Ltd., that conduct audits in the same way as Hitachi, Ltd., and all results are subject to confirmation. For Hitachi Group companies outside Japan, we use a "common global self-check" approach to ensure Group-wide auditing and inspections. We implement Confirmation of Personal Information Protection and Information Security Management annually for the voluntary inspection of Hitachi, Ltd. business unit workplaces. We conduct monthly Confirmation of Personal Information Protection and Information Security Management assessments at 606 operations (as of March 2019) that handle important personal information. This regular control mechanism ensures ample safety management and implementation.

Data

CONTENTS

Indicators and Data

The Key Indicators of Hitachi's sustainability activities are listed below. Comparative tables with the GRI Standards Content Index, as well as our Policy and Guidelines, are only available on our website.

Comparative Tables with GRI Standards Content Index

Policy and Guidelines

Financial Results (Consolidated IFRS)

(billion yen)

	FY 2016	FY 2017	FY 2018
Revenue	9,162.2	9,368.6	**9,480.6**
Adjusted operating income	587.3	714.6	**754.9**
EBIT*1	475.1	644.2	**513.9**
Income from continuing operations, before income taxes	469.0	638.6	**516.5**
Net income attributable to Hitachi, Ltd. stockholders	231.2	362.9	**222.5**
Capital investment (completion basis)	377.5	374.9	**414.7**
R&D expenditure	323.9	332.9	**323.1**

*1 EBIT: Income from continuing operations before income tax, less interest income, plus interest charges.

Environmental

	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Achieving a Low-Carbon Society/Achieving a Resource Efficient Society/Achieving a Harmonized Society with Nature					
Rate of reduction in CO_2 emissions from use of products and services (base: FY 2010)*1 (%)	—	—	35	33	**34**
CO_2 emissions from factories and offices (kt-CO_2) ✓	4,128	3,895	4,577*2	4,663*2	**4,470*2**
Water use (million m³)	46.86	43.91	41.34*2	38.54*2	**37.02*2**
Waste and valuables generation (kt)	692	618	1,336*2	1,356*2	**1,384*2**
Atmospheric emissions of chemical substances (t)	4,415	3,615	4,380*2*3	4,223*2*3	**4,392*2*3**

Scope of Data

Hitachi, Ltd. and consolidated subsidiaries.

Number of companies: FY 2014: 996; FY 2015: 1,057; FY 2016: 865; FY2017: 880; FY2018: 804.

Environmental performance data associated with Hitachi's business operations: Hitachi Group companies whose environmental load comprises 90% of the total (based on Hitachi calculations); data for each fiscal year indicates performance within the given scope for the fiscal year.

*1 New indicator established in fiscal 2016.

*2 Figures include a materials company that has become a consolidated member of the Hitachi Group since fiscal 2016.

*3 The management scope of chemical substances has been expanded from 41 to 50 substances since fiscal 2016.

Social

Innovative Management

	FY 2014	FY 2015	FY 2016	FY 2017	**FY 2018**
Research and Development/Intellectual Property					
Ratio of R&D expenditure to revenue (%)	3.4	3.3	3.5	3.6	**3.4**
Patent application ratio outside Japan (%)	59	59	57	56	**58**

Scope of Data

Hitachi, Ltd. and consolidated subsidiaries (including variable interest entities).
Number of companies: FY 2014: 996; FY 2015: 1,057; FY 2016: 865; FY 2017: 880; FY 2018: 804.

Human Capital

		FY 2014	FY 2015	FY 2016	FY 2017	**FY 2018**
Employee Data						
Number of employees[1]		31,375	37,353	35,631	34,925	**33,490**
	Male	26,428	31,536	29,921	29,220	**27,828**
	Female	4,947	5,817	5,710	5,705	**5,662**
Average age (years)[1]		41.0	41.2	41.4	41.7	**42.1**
	Male	41.6	41.7	42.0	42.3	**42.7**
	Female	38.0	38.4	38.6	39.0	**39.3**
Average service (years)[1]		18.4	18.4	18.6	18.8	**19.0**
	Male	19.0	19.0	19.2	19.4	**19.6**
	Female	15.4	15.6	15.7	16.0	**16.1**
Turnover ratio (%)[1][2] ✓		1.4	1.3	1.5	1.5	**1.6**

		FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Developing Global Human Capital						
Number of young employees participating in training outside Japan*3		720	674	382	378	**392**
Diversity and Inclusion/Work-Life Management						
Ratio of female employees (%)*1		16.3	16.5	16.8	17.2	**17.8**
Global ratio (number) of female managers*4 ✓		6.0	6.4	6.3	6.4	**6.8**
		(3,670)	(3,727)	(3,365)	(3,459)	**(3,638)**
Ratio (number) of female managers*1*5 ✓		3.7	4.0	4.1	4.2	**4.8**
		(434)	(474)	(509)	(577)	**(635)**
	General manager or above	2.8	3.2	3.3	3.2	**3.4**
		(87)	(104)	(113)	(128)	**(135)**
	Section manager	4.1	4.3	4.4	4.6	**5.3**
		(347)	(370)	(396)	(449)	**(500)**
Ratio of new female graduates hired (%)*6		21.7	22.8	26.3	26.6	**24.2**
	Technical	18.3	17.3	20.8	17.2	**17.9**
	Administrative	41.0	45.5	42.1	53.8	**51.6**
Employment ratio of people with disabilities (%)*7		2.03	2.08	2.11	2.15	**2.23**
Number of employees taking maternity/ paternity leave*1	Female	508	524	664	724	**720**
	Male	236	307	352	426	**464**
Number of employees using shorter working hours for child care*1	Female	663	668	822	887	**893**
	Male	4	3	2	2	**5**
Number of employees taking nursing-care leave*1	Female	8	8	7	7	**9**
	Male	9	9	8	14	**9**
Number of employees using shorter working hours for nursing care*1	Female	7	9	9	12	**11**
	Male	3	3	3	3	**2**
Paid leave*1	Average number of days	15.4	15.6	16.3	17.2	**18.7**
	Ratio (%)	64.3	65.3	68.1	72.0	**78.3**
Average overtime hours/month*1		12.2	11.9	12.8	10.9	**9.3**
Occupational Health and Safety*8						
Number of fatal accidents		3	4	3	5	**0**
Occupational accident severity rate*9 ✓		0.09	0.07	0.18	0.17	**0.11**
Occupational accident frequency rate*9 ✓		0.27	0.22	0.18	0.25	**0.20**

Scope of Data

*1 Hitachi, Ltd.

*2 Includes only voluntary resignations.

*3 Hitachi, Ltd. and Hitachi Group companies in Japan.

*4 All full-time, regular female managers excluding those dispatched to non-Group companies.

*5 Since fiscal 2017, "Female managers" has included managerial employees dispatched from Hitachi, Ltd. to other companies and those accepted from other companies by Hitachi, Ltd. Earlier figures include regular managerial employees dispatched to other companies but exclude those accepted from other companies.

*6 Graduates from universities or colleges (including postgraduate schools and technical colleges).

*7 Including Hitachi, Ltd. and special subsidiaries and related Group companies. Data compiled on June 1 of each fiscal year (2.26% ✓ in fiscal 2019 including 2 special subsidiaries and 17 related Group companies).

*8 January to December each year.

*9 251 Hitachi Group companies in Japan including Hitachi, Ltd. for 2014; 240 Hitachi Group companies in Japan including Hitachi, Ltd. for 2015; 200 Hitachi Group companies in Japan including Hitachi, Ltd. for 2016; 202 Hitachi Group companies in Japan including Hitachi, Ltd. for 2017; 188 Hitachi Group companies in Japan including Hitachi, Ltd. for 2018.

Value Chain Management ✓

	FY 2014	FY 2015	FY 2016	FY 2017	**FY 2018**
Responsible Procurement					
Number of audits by external auditing organizations	20	20	20	18	**24**

Community

	FY 2014	FY 2015	FY 2016	FY 2017	**FY 2018**
Social Contribution Activities					
Funding for social contribution activities (million yen)*1	1,218	889	527	948	**841**
Funding for social contribution activities (million yen)*2	2,327	2,057	1,953	2,195	**1,888**

Scope of Data

*1 Hitachi, Ltd. and the Hitachi Global Foundation in Japan.

*2 Through to fiscal 2014: (in Japan) Hitachi, Ltd., 136 Group companies (including equity-method associates and joint ventures), and five foundations; (outside Japan) 199 companies. For fiscal 2015: (in Japan) Hitachi, Ltd., 136 Group companies (including equity-method associates and joint ventures), and the Hitachi Global Foundation; (outside Japan) 244 companies. For fiscal 2016: (in Japan) Hitachi, Ltd., 134 Group companies, and the Hitachi Global Foundation; (outside Japan) 159 companies. For fiscal 2017: (in Japan) Hitachi, Ltd., 141 Group companies, and the Hitachi Global Foundation; (outside Japan) 196 companies. For fiscal 2018: (in Japan) Hitachi, Ltd., 141 Group companies, and the Hitachi Global Foundation; (outside Japan) 152 companies.

Governance

	Total	Gender		Nationality	
		Male	Female	Japanese	Non-Japanese
Directors*1	**11**[*2]	9	2	7	4
Executive officers*1	**39**	39	0	37	2
Executive officers and corporate officers*1*3	**80**	76	4	73	7
			(5.0%) ✓		(8.8%) ✓

*1 As of June 2019.

*2 Including eight independent directors (four from Japan and four from outside Japan).

*3 Positions considered to be at executive officer and corporate officer level within the company.

Key Sustainability Challenges and GRI Standards

In reporting the achievements of its sustainability initiatives, Hitachi seeks to identify issues that are of interest to its stakeholders. Selection is made with reference to the GRI Standards and the ESG (environmental, social, and governance) investment indexes, and reporting is performed after review by the executive officer in charge of CSR.

We also aim to provide a more detailed account of the topics' social impact by clarifying the boundaries (importance to internal and external stakeholders) of each topic.

🖱 Comparative Tables with GRI Standards Content Index

	Material Issues	GRI Standards	Reporting Boundary	
			Internal	External
Environmental	Environmental Vision and Long-Term Environmental Targets		●	●
	Environmental Governance	GRI 201: Economic Performance GRI 307: Environmental Compliance GRI 404: Training and Education	●	
	Achieving a Low-Carbon Society	GRI 302: Energy GRI 305: Emissions	●	●
	Achieving a Resource Efficient Society	GRI 303: Water GRI 306: Effluents and Waste	●	●
	Achieving a Harmonized Society with Nature	GRI 304: Biodiversity	●	●
	Environmental Data	GRI 201: Economic Performance GRI 301: Materials GRI 302: Energy GRI 303: Water GRI 305: Emissions GRI 306: Effluents and Waste	●	
Social	Innovation Management	GRI 203: Indirect Economic Impacts	●	●
	Human Capital	GRI 202: Market Presence GRI 401: Employment GRI 402: Labor/Management Relations GRI 403: Occupational Health and Safety GRI 404: Training and Education GRI 405: Diversity and Equal Opportunity	●	
	Human Rights	GRI 402: Labor/Management Relations GRI 406: Non-discrimination GRI 407: Freedom of Association and Collective Bargaining GRI 408: Child Labor GRI 409: Forced or Compulsory Labor GRI 410: Security Practices GRI 411: Rights of Indigenous Peoples GRI 412: Human Rights Assessment GRI 414: Supplier Social Assessment	●	●
	Value Chain Management	GRI 204: Procurement Practices GRI 308: Supplier Environmental Assessment GRI 414: Supplier Social Assessment GRI 416: Customer Health and Safety GRI 417: Marketing and Labeling GRI 418: Customer Privacy GRI 419: Socioeconomic Compliance	●	●
	Community	GRI 413: Local Communities	●	●
Governance	Corporate Governance		●	
	Compliance	GRI 205: Anti-corruption GRI 419: Socioeconomic Compliance	●	●
	Risk Management		●	●

Main Assessments and Awards

Hitachi actively pursues a range of activities aimed at developing a more sustainable society. These activities have earned the Hitachi Group high marks from numerous external organizations.

Actively Responding to ESG Assessments

The Hitachi Group welcomes external assessments as a target for ESG[1] and sustainability-oriented investment. For ten years in a row, starting with fiscal 2009, the Dow Jones Sustainability Asia Pacific Index (DJSI Asia Pacific),[2] a leading global socially responsible investment index, has listed Hitachi, Ltd. as a component stock. Since fiscal 2017, the company has also been included as a component of the Euronext Vigeo Eiris World 120 Index.[3]

Four Group companies (Hitachi Chemical, Hitachi Metals, Hitachi Construction Machinery, and Hitachi High-Technologies) were selected for the FTSE4Good Index Series.[4] Hitachi Chemical was also selected for the MSCI ACWI ESG Leaders Index.[5]

[1] ESG stands for "environmental," "social," and "governance"—key factors in promoting socially responsible investment.
[2] DJSI: A family of ESG indexes developed by Dow Jones & Company (USA) and RobecoSAM (Switzerland) that includes global and regional indexes with specific compositions. DJSI World, for example, selects on a global basis, while the DJSI Asia Pacific Index covers Japan, Asia, and Australia.
[3] Euronext Vigeo Eiris World 120 Index: A sustainability index comprising 120 companies from Europe, North America, and the Asia Pacific region that have achieved the most advanced performance in the ESG areas. Created by NYSE Euronext, which operates several stock exchanges in the United States and Europe, and an ESG research firm, Vigeo Eiris.
[4] FTSE4Good Index Series: One of the indexes calculated by the London Stock Exchange—owned FTSE Group that selects component stocks based on their ESG performance, specifically environmental management, climate change mitigation, human rights and workers' rights, supply chain labor standards, and bribery and corruption prevention.
[5] MSCI ACWI ESG Leaders Index: A family of indexes developed by US-based Morgan Stanley Capital International comprising companies with high ESG ratings relative to sector peers.

Results of ESG Analysis in Fiscal 2018

Institution	Index	Companies selected
RobecoSAM	Dow Jones Sustainability Asia Pacific Index	Hitachi, Ltd.
MSCI	MSCI ACWI ESG Leaders Index	Hitachi Chemical Co., Ltd.
	MSCI Japan ESG Select Leaders Index	Hitachi, Ltd., Hitachi Chemical Co., Ltd., Hitachi Metals, Ltd., Hitachi Construction Machinery Co., Ltd., Hitachi High-Technologies Corporation
	MSCI Japan Empowering Women Index (WIN)	Hitachi, Ltd., Hitachi Chemical Co., Ltd., Hitachi Metals, Ltd., Hitachi High-Technologies Corporation
FTSE	FTSE4Good Index Series	Hitachi Chemical Co., Ltd., Hitachi Metals, Ltd., Hitachi Construction Machinery Co., Ltd., Hitachi High-Technologies Corporation
	FTSE Blossom Japan Index	Hitachi Chemical Co., Ltd., Hitachi Metals, Ltd., Hitachi Construction Machinery Co., Ltd., Hitachi High-Technologies Corporation
Vigeo Eiris	Euronext Vigeo Eiris World 120 Index	Hitachi, Ltd.

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Sustainability Indices**
In Collaboration with RobecoSAM

EURONEXT
vigeo eiris
INDICES **WORLD 120**

Diversity Management Selection 100

In 2013, Hitachi, Ltd. was chosen for inclusion in the Diversity Management Selection 100, an initiative of Japan's Ministry of Economy, Trade, and Industry (METI). The Diversity Management Selection 100 system chooses and recognizes companies that have achieved high results in such areas as improving innovation and productivity by using the talents of diverse employees, including women, different nationalities, older employees, and people with disabilities. Hitachi was lauded for going beyond simply introducing diversity programs to promote diversity management Group-wide as a corporate strategy backed by strong management commitment.

In 2015, Hitachi Solutions was chosen for the METI Diversity Management Selection 100.

Kurumin Certification

Kurumin certification is granted under Japan's April 2005 Act on Advancement of Measures to Support Raising Next-Generation Children to companies that create action plans for child-care support in line with this legislation and that meet performance requirements.

In February 2011, Hitachi, Ltd. acquired this certification[1] in recognition of its achievements in developing and implementing action plans supporting child care so that employees can work with the peace of mind that comes from a good work-life balance.

*1 Hitachi Group companies receiving Kurumin certification are: Hitachi Construction Machinery Co., Ltd., Hitachi Kokusai Electric Inc., Hitachi High-Technologies Corporation, Hitachi Urban Investment, Ltd., Hitachi Systems Ltd., Hitachi Solutions, Ltd., Hitachi SC, Ltd., Hitachi Solutions East Japan, Ltd., Hitachi Social Information Services, Ltd., Hitachi Architects & Engineers Co., Ltd, Hitachi Mito Engineering Co., Ltd., Mito Engineering Service Co., Ltd., Okinawa Hitachi Network Systems, Ltd., and Hitachi Solutions Create, Ltd.

Eruboshi Certification

The Eruboshi mark is conferred to companies that have submitted action plans under the Act on Promotion of Women's Participation and Advancement in the Workplace (which came into effect on April 1, 2016) and are implementing exceptional measures.

On February 28, 2017, Hitachi, Ltd. was awarded Eruboshi certification for promoting diversity as an important component of its management strategy and for creating work environments enabling its diverse human capital to play an active role. Companies are assessed in five categories[1] and are grouped into three classes according to the number of standards they clear; Hitachi, Ltd. was awarded class 2.[2]

*1 The five assessment categories are (1) recruitment, (2) years of continuous employment, (3) workstyles, including working hours, (4) percentage in management positions, and (5) diversity of career choices.
*2 Other Hitachi Group companies earning Eruboshi certification are: Hitachi Systems Ltd. (class 3); Hitachi Solutions, Ltd. (class 3); Hitachi Chemical Co., Ltd. (class 2); Hitachi High-Technologies Corporation (class 3); and Hitachi Solutions East Japan, Ltd. (class 2).

Top 100 Telework Pioneers

In November 2018, Hitachi, Ltd. and Hitachi Solutions were selected among the "Top 100 Telework Pioneers" in a contest sponsored by Japan's Ministry of Internal Affairs and Communications. The ministry has recognized leading telework pioneers since fiscal 2015 as part of its efforts to promote telework as a flexible workstyle using ICT free from time and location constraints. Companies receive the "Top 100 Telework Pioneers" award if they meet certain criteria and track records: more than 25% of their regular workforce must be eligible for telework, more than half of their eligible workforce (or 100 employees) must have practiced telework, and the average number of days of teleworking among those practicing telework must be at least four days a month.

Telework Promotion Awards

In February 2019, Hitachi, Ltd. received an honorable mention for telework practice from the "Telework Promotion Awards" hosted by the Japan Telework Association. This was the 19th year of the awards, which were established in fiscal 2000 with the aim of developing and promoting telework.

We were highly commended for our efforts to reduce overtime and improve meeting productivity through the "Hitachi Work Life Innovation" initiative, thus building a vibrant environment bringing the most out of diverse human capital with different views and values.

Nikkei Smart Work Awards

In January 2019, Hitachi, Ltd. won an award in the "Technology Utilization" category of the "Nikkei Smart Work Awards 2019" sponsored by Nikkei Inc. These awards aim to recognize advanced companies enhancing productivity and sustainable growth through work-life reform. From 2018, based on a survey that covers all listed and major unlisted companies across Japan, the external review committee began comprehensively evaluating and selecting award-winning companies based on performance in areas such as human capital development, innovation capability, and business foundation.

Hitachi, Ltd. earned high scores for its use of cutting-edge technologies for its universal talent management system, its innovation capability in creating a system that allows development of the most optimal production plan on-site, and its management in adjusting and transforming its business with the times, also expanding its solution offerings.

Environmental Communication Awards

In February 2019, Hitachi received the "Global Warming Countermeasure Communication Award (Global Environment Forum Director's Award)" at the "22nd Environmental Communication Awards," co-sponsored by Japan's Ministry of the Environment and the Global Environmental Forum. These awards aim to promote environmental communication initiatives among business operators as well as enhance their quality by commending excellent environmental reports.

The *Hitachi Sustainability Report 2018* was evaluated highly for its clear explanation of how our policies for a sustainable society are consistently reflected in our entire management structure, from the CEO's message and environmental vision to information on planning and business activities, as well as the relationship of our business to our risks and opportunities.

Independent Assurance

To enhance the reliability of the data disclosed in the Hitachi Sustainability Report 2019, we have received independent assurance of key environmental and social performance indicators by KPMG AZSA Sustainability Co., Ltd. The indicators that were assured are marked with a ⊘.

The standards, guidelines, and calculation methods used in collecting environmental data are posted on our website.

🖱 Calculation Methods for Environmental Load Data

Third-Party Assurance Report

KPMG   Independent Assurance Report

To the President and CEO of Hitachi, Ltd.

We were engaged by Hitachi, Ltd. (the "Company") to undertake a limited assurance engagement of the environmental and social performance indicators marked with ⊘ (the "Indicators") for the period from April 1, 2018 to March 31, 2019 (with the exception of the 'Ratios for Female and Non-Japanese Executive and Corporate Officers', the 'Employment of people with disabilities' and the 'Employment ratio of people with disabilities', which are as of June 2019) included in its Hitachi Sustainability Report 2019 (the "Report") for the fiscal year ended March 31, 2019.

The Company's Responsibility

The Company is responsible for the preparation of the Indicators in accordance with its own reporting criteria (the "Company's reporting criteria"), as described in the Report.

Our Responsibility

Our responsibility is to express a limited assurance conclusion on the Indicators based on the procedures we have performed. We conducted our engagement in accordance with the 'International Standard on Assurance Engagements (ISAE) 3000, Assurance Engagements other than Audits or Reviews of Historical Financial Information' and the 'ISAE 3410, Assurance Engagements on Greenhouse Gas Statements' issued by the International Auditing and Assurance Standards Board. The limited assurance engagement consisted of making inquiries, primarily of persons responsible for the preparation of information presented in the Report, and applying analytical and other procedures, and the procedures performed vary in nature from, and are less in extent than for, a reasonable assurance engagement. The level of assurance provided is thus not as high as that provided by a reasonable assurance engagement. Our assurance procedures included:

● Interviewing the Company's responsible personnel to obtain an understanding of its policy for preparing the Report and reviewing the Company's reporting criteria.
● Inquiring about the design of the systems and methods used to collect and process the Indicators.
● Performing analytical procedures on the Indicators.
● Examining, on a test basis, evidence supporting the generation, aggregation and reporting of the Indicators in conformity with the Company's reporting criteria, and recalculating the Indicators.
● Visiting Hitachi Construction Machinery Tierra Co., Ltd.'s Shiga Factory selected on the basis of a risk analysis.
● Evaluating the overall presentation of the Indicators.

Conclusion

Based on the procedures performed, as described above, nothing has come to our attention that causes us to believe that the Indicators in the Report are not prepared, in all material respects, in accordance with the Company's reporting criteria as described in the Report.

Our Independence and Quality Control

We have complied with the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which includes independence and other requirements founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior. In accordance with International Standard on Quality Control 1, we maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

KPMG AZSA Sustainability Co., Ltd.

KPMG AZSA Sustainability Co., Ltd.
Tokyo, Japan
October 15, 2019