HITACHI
Inspire the Next

Hitachi Sustainability Report 2018
Fiscal 2017 Results

Contents

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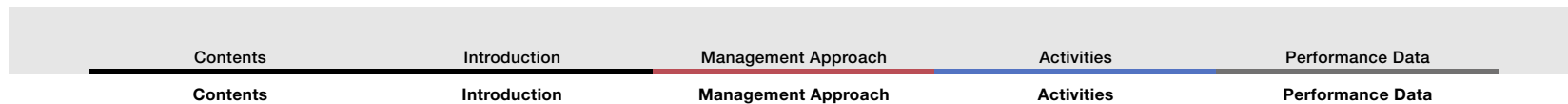
Editorial Policy

Basic Concept

We are continuously improving our CSR activities and have identified nine key themes for our CSR management framework: (1) recognition of social responsibility, (2) corporate governance, (3) human rights, (4) labor practices, (5) environment, (6) fair operating practices, (7) customers (consumer issues), (8) community involvement and development, and (9) review and improvement of CSR activities.

With reference to these nine key themes, the *Hitachi Sustainability Report 2018* details the social and environmental issues that are vital to the sustainability of our operations and society, presenting our stance and the activities undertaken in fiscal 2017.

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 2017 (April 1, 2017, to March 31, 2018)	
Companies:	1,287 companies, namely Hitachi, Ltd. and 1,286 consolidated subsidiaries (including 407 equity-method associates and joint ventures)	
Boundary of Data:	Financial data:	1,287 companies, namely Hitachi, Ltd. and 1,286 consolidated subsidiaries (including 407 equity-method associates and joint ventures)
	Social data:	Boundary of data indicated under each indicator
	Environmental data:	880 companies, namely Hitachi, Ltd. and 879 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 2018	

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 2017.

[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.

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 2017 that have been assured are marked with ⊘ in the report.

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

Hitachi Integrated Report 2018 (To be published late October in 2018)

● 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 149th Business Term*.

● Non-Financial Information Reports

The *Hitachi Sustainability Report 2018* provides non-financial information to investors, auditors, and CSR experts in an easily searchable, interactive PDF format (A4, 137 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 2018

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*.

Hitachi Group Profile

Company Profile (as of March 31, 2018)

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	34,925 (unconsolidated basis) 307,275 (consolidated basis)
Number of consolidated subsidiaries (including variable interest entities)	879 (Japan: 202, outside of Japan: 677)
Number of equity-method associates and joint ventures	407

Consolidated Financial Highlights for Fiscal 2017,

Based on the International Financial Reporting Standards (IFRS)

Revenue	9,368.6 billion yen (up 2%, year on year)
EBIT*1	644.2 billion yen (up 36%)
Income from continuing operations, before income taxes	638.6 billion yen (up 36%)
Net income attributable to Hitachi, Ltd. stockholders	362.9 billion yen (up 57%)
Capital expenditure*2	374.9 billion yen (down 1%)
R&D expenditure	332.9 billion yen (up 3%)
Total assets	10,106.6 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 2017, based on IFRS)

Information & Telecommunication Systems
2,008.9 billion yen (20%)

Others
557.7 billion yen (6%)

Smart Life & Ecofriendly Systems
540.1 billion yen (5%)

Automotive Systems
1,001.0 billion yen (10%)

High Functional Materials & Components
1,657.5 billion yen (16%)

Construction Machinery
959.1 billion yen (9%)

Electronic Systems & Equipment
1,086.5 billion yen (11%)

Social Infrastructure & Industrial Systems
2,375.0 billion yen (23%)

Subtotal of Revenue by Segment
10,186.1 billion yen

Consolidated Revenue
9,368.6 billion yen

Revenue and Net Income Attributable to Hitachi, Ltd. Stockholders

(billion yen) / (billion yen)

	2013	2014	2015	2016	2017 (FY)
Revenue	9,666.4	9,774.9	10,034.3	9,162.2	9,368.6
Net income attributable to Hitachi, Ltd. stockholders	413.8	217.4	172.1	231.2	362.9

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

Revenue and Share by Region

(Consolidated for fiscal 2017, based on IFRS)

Other Areas 502.3 billion yen (5%)
Number of Companies: 106
Number of Employees: 12,000

Asia 2,081.1 billion yen (22%)
Number of Companies: 332
Number of Employees: 88,000

Europe 964.4 billion yen (10%)
Number of Companies: 139
Number of Employees: 16,000

North America 1,177.5 billion yen (13%)
Number of Companies: 100
Number of Employees: 21,000

Japan 4,643.0 billion yen (50%)
Number of Companies: 203*1
Number of Employees: 168,000

Revenue by Region
Japan: 4,643.0 billion yen
Overseas: 4,725.5 billion yen

*1 Hitachi, Ltd. and 202 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, 2018)**
  Hitachi Information & Telecommunication Engineering, Ltd., Hitachi-Omron Terminal Solutions, Corp., Hitachi Computer Products (America), Inc., Hitachi Financial Equipment System (Shenzhen) Co., Ltd., Hitachi Solutions, Ltd., Hitachi Systems, Ltd., Hitachi Consulting Corporation, Hitachi Information & Telecommunication Systems Global Holding Corporation,[1] Hitachi Payment Services Pvt. Ltd., Hitachi Vantara Corporation

[1] Hitachi Information & Telecommunication Systems Global Holding Corporation changed its company name to Hitachi Global Digital Holdings Corporation on April 1, 2018.

▶ 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**
  Manufacturing and logistics systems; water treatment systems; industrial machinery; elevators; escalators; railway systems; nuclear power generation systems; renewable energy power generation systems; power transmission and distribution systems

- **Principal Consolidated Subsidiaries (as of March 31, 2018)**
  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., Horizon Nuclear Power, Ltd., Sullair US Purchaser, Inc.

▶ 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, 2018)**
  Hitachi High-Technologies Corporation, Hitachi Kokusai Electric Inc.[1]

[1] Hitachi, Ltd. transferred all shares it held of Hitachi Kokusai Electric Inc. on May 31, 2018, and then repurchased a portion of the shares on June 4, turning the company into an equity-method associate.

▶ 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, 2018)**
  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 components, wires and cables

- **Principal Consolidated Subsidiaries (as of March 31, 2018)**
  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 management systems, electric powertrain systems, drive control systems, car information systems

- **Principal Consolidated Subsidiaries (as of March 31, 2018)**
  Clarion Co., Ltd., 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, 2018)**
  Hitachi Appliances, Inc., Hitachi Consumer Products (Thailand), Ltd., Hitachi Consumer Marketing, Inc.

Note: We conduct a broad range of business activities from product development to production, sales, and servicing in eight segments in all, including "Others," added to the above.

Management Approach   06

Leadership

CEO's Message

Social Innovations to Ensure the Sustainability of Society

Even as remarkable advances in digitization have transformed our society and the structure of industry in recent years, many of the challenges confronting our world today remain unresolved in such areas as energy and the environment, water scarcity, rapid urbanization, insufficient infrastructure, and security issues. In the light of the accelerating global drive to ensure the sustainability of our society, private companies will need to play an increasingly important role. Hitachi, as a company with operations worldwide, surely has a responsibility to contribute to this effort.

Hitachi's Corporate Credo is to contribute to society through the development of superior, original technology and products. This has remained at the heart of our operations since our founding and informs our current Hitachi Group Identity, which is to become a company that "delivers innovations that answer society's challenges." Our management strategy seeks to offer innovative solutions and products in our Social Innovation

Business by combining various digital technologies and to create economic, social, and environmental value. We also strive to enhance the robustness of our operations and to reduce their negative social and environmental impact.
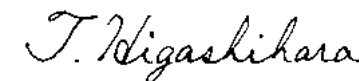
In fiscal 2017, the Executive Sustainability Committee, which I chair, examined the opportunities and risks presented by the 17 Sustainable Development Goals (SDGs), a task that enabled us to better understand the contributions our business activities are making to the achievement of each goal. Given the broad range of businesses in which we are engaged, including "power and energy," "industry, distribution, and water," "urban," and "finance, social, and healthcare," I believe that we are uniquely positioned to make wide-ranging contributions to the achievement of the SDGs.

Of these social challenges, Goal 13—which calls for urgent action to combat climate change—is a particularly important management issue for us. For our customers and society,

we will strive to create more energy-efficient, value-laden solutions to further reduce CO_2 emissions throughout the value chain of products and services.

A key component of advancing sustainable management is raising awareness of each and every employee. In April 2018, therefore, we revised the Hitachi Group Codes of Conduct that provides guidelines for the decisions to be made and action to be taken by both management and employees so they may better contribute to the achievement of the SDGs and the resolution of issues faced by global society.

Hitachi will continue to work toward a sustainable society in which all people can live in safety, security, and comfort by pursuing management in conformity with the ESG criteria for the "environmental," "social," and "governance" and by advancing collaborative creation with our customers and business partners.

T. Higashihara

Toshiaki Higashihara
President & CEO
Hitachi, Ltd.

Executive Officer's Message:
CSR and the Environment

Osamu Naito

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

Sustainable Development for Business and Society

Since the United Nations' announcement of the Sustainable Development Goals (SDGs) in 2015, movements around social sustainability have accelerated worldwide. Corporations are no longer judged by their finances alone, but closely scrutinized in the three areas of "environmental," "social," and "governance" (ESG), and management is expected to recognize the importance of sustainability as a matter of course.

In fiscal 2017, Hitachi, Ltd. formed an Executive Sustainability Committee chaired by the president to develop policies addressing the social issues that the SDGs represent as part of Hitachi's long-term business strategy. Identifying the various opportunities and risks of our businesses, we summarized our planned contributions to achieving the SDGs in a report entitled *Onward to 2030: Hitachi's Road to Sustainability*. Building on this initiative, our division responsible for CSR, the environment, and social contribution—which I manage—was renamed the Sustainability Promotion Division in April 2018, and has since pursued an even closer integration of sustainability with business strategy even as we meet our responsibilities as a global business.

Around the world, the push to reduce carbon emissions and even fully decarbonize is also gathering momentum. Climate change is a key management issue for Hitachi—a challenge that we must actively contribute to resolving through innovation and business solutions. Announced in fiscal 2016, Hitachi Environmental Innovation 2050 includes the long-term environmental target of reducing CO_2 emissions throughout our global value chain 80% by fiscal 2050 (compared to fiscal 2010 levels), along with an interim target of a 50% reduction by 2030.

Recognizing the demand from investors and other stakeholders for information disclosure regarding climate change, in June 2018 we endorsed the recommendations of the Task Force on Climate-related Financial Disclosures, and the following month we joined the Japan Climate Initiative, which brings corporations and public entities together to address this vital issue.

We consider respect for human rights the highest priority for a global corporation. In accordance with the Hitachi Group Human Rights Policy that was adopted in 2013, we have begun human rights due diligence and promote various initiatives to ensure respect for the human rights of all stakeholders across our entire value chain.

Developing human capital has been part of Hitachi's mission since its founding, and we continue to collaborate with a wide range of stakeholders on fostering the next generation and supporting local communities.

Moving forward, we will continue to pursue the sustainable development of society and our company through dialogue with and proactive information disclosure to our stakeholders. In that spirit, I urge all stakeholders to read this report for more details about our activities in relation to ESG.

Recognition of Social Responsibility

We are actively advancing activities that contribute to sustainability to meet society's expectations based on an accurate perception of the impact of our operations on society and our social responsibilities. We are contributing to the resolution of social issues through our Social Innovation Business, which combines advanced IT with infrastructure technologies developed over many years, and are conducting dialogue with all our stakeholders to identify and contribute to the identification of social issues.

Of particular note in fiscal 2017 was the deliberation on the business risks and opportunities presented by the 17 United Nations Sustainable Development Goals (SDGs), which came into force in January 2016—paying heed, too, to the content of ISO 26000 and the UN Global Compact— and the identification of the 11 Goals that pose the most important social challenges for Hitachi.

Realizing Sustainable, Innovative Management

Hitachi's Approach

Trends in Society and Hitachi Group Identity

Society is today undergoing great changes and faces a range of challenges, from energy and environmental issues to water scarcity, rapid urbanization, an aging society, insufficient infrastructure, and security. 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

Megatrends*1
- Rapid urbanization
- Climate change and resource scarcity
- Demographic change
- Shift in global economic power
- Rise of technology

Achieving a Sustainable Society
- Securing water resources, energy, and food
- Replacing aging infrastructure systems
- Reducing CO_2 emissions
- Improving transportation systems
- Dealing with the low birthrate and aging population
- Promoting material recycling

Hitachi Group Identity

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 As identified in "Five Megatrends and Possible Implications," published in 2014 by PwC.

Sustainability Strategy and Management

▶ **Executive Sustainability Committee Initiatives**

In April 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 various business units (BUs).

Each BU has assigned sustainability strategy promotion officers to strengthen the measures and organizations needed to help achieve the Sustainable Development Goals (SDGs) and promote sustainability. In fiscal 2017, discussions were held to deepen understanding of sustainability and the SDGs and to clarify the relationships between our major businesses and the SDGs from the standpoint of opportunities and risks. From fiscal 2018, we will pursue new business opportunities centered on social issues.

▶ **Sustainability Management Structure**

In October 2013, the CSR Division and the Environmental Strategy Office at Hitachi, Ltd. merged to form the CSR and Environmental Strategy Division.

Aiming to help realize a sustainable society, in April 2017 we created the Executive Sustainability Committee and reorganized the promotion structure it heads. The committee is responsible for assessing the impact that the company has on society and responding to stakeholder expectations by building long-term corporate strategies through business activities with a focus on environment, society, and governance, as well as conventional corporate social responsibility (CSR) activities. In April 2018, the CSR and Environmental Strategy Division was renamed the Sustainability Promotion Division.

To promote sustainability policies and activities across the Group, Sustainability Promotion Meetings were convened to work with sustainability strategy promotion officers from the various business units and Group companies using the Sustainability Promotion Division as a secretariat. As well as holding regular CSR Corporate Meetings with corporate-related departments at Hitachi, Ltd., the Sustainability Promotion Division also organized CSR Manager Meetings with the CSR departments of business units and Group companies. In addition, the committee held regular Regional CSR Meetings for regional headquarters outside Japan to share a common direction and promote sustainability strategy.

To fulfill our social responsibilities, as well as to seek sustainable growth as a global company, we conduct stakeholder dialogue on a worldwide basis in cooperation with our regional headquarters and take a proactive approach to incorporating global social issues into our management strategy while continuously striving to improve the quality of our management.

Sustainability Strategy Promotion Structure

Executive Sustainability Committee
- Chair: President & CEO
- Members: Senior Executive Committee members, business unit CEOs, Hitachi, Ltd. department heads
- Objective: Discuss and define sustainability strategy at management/business unit/department levels

Secretariat: Sustainability Promotion Division
Overseas CSR/environment officers
Global Environmental Meetings
Global CSR Meetings

Sustainability Promotion Meetings
- CSR Corporate Meetings
- CSR Manager Meetings
- Regional CSR Meetings

Eco-Management Meetings
- Environmental Manager Meetings
- Regional Environmental Meetings

Hitachi's Social Innovation Business

We work with stakeholders to recognize issues society and our customers face, including global environment problems, and are contributing to the resolution of social issues through our Social Innovation Business, which combines advanced IT with infrastructure technologies developed over many years.

In May 2016, we formulated our 2018 Mid-term Management Plan, which will culminate in fiscal 2018. Under the plan, we aim to become an Innovation Partner for the IoT Era centered on our Social Innovation Business, seeking to expand the sales ratio of frontline operations that develop and deploy services meeting the diverse needs of global society to 40% and to increase our overseas sales ratio as a whole to 55%. With the former ratio reaching 39% and the latter 50% as of fiscal 2017 end, we are making steady progress toward our targets.

We will expand our frontline operations by evolving and enhancing our Social Innovation Business through digital technology and promoting it overseas in the focus business domains of "power and energy," "industry, distribution, and water," "urban," and "finance, social, and healthcare."

We will continue to provide optimum solutions to society's issues with advanced network technologies that are capable of connecting social infrastructure, products, and people.

🖱 Social Innovation Business

🖱 2018 Mid-term Management Plan

🖱 Progress of the 2018 Mid-term Management Plan

Focus Business Domains and Key Initiatives

Power/Energy

Transition to distributed power supply utilizing IT
- Microgrid, regional energy management
- Renewable energy

Investment Focus
- Strengthening grid and engineering
- Predictive maintenance

Industry/ Distribution/Water

Use "Lumada"*1 IoT platform to optimize value chains for industry and distribution

Investment Focus
- Strengthening engineering
- Predictive maintenance
- Optimized factory

Urban

Improvement of quality of life in communities
From rail as a service to outcome delivery

Investment Focus
- Development of urban solutions
- Expansion of the rail business area

Finance/Social/ Healthcare

FinTech, My Number Healthcare service (platform)

Investment Focus
- Strengthening healthcare informatics

*1 Hitachi's open and highly versatile IoT solution platform using software technology to obtain new information from integrating and analyzing data and running simulations.

The Key Social Challenges Hitachi Faces

Hitachi's Social Innovation Business and Sustainability

In 2015, the United Nations announced 17 Sustainable Development Goals (SDGs) to be achieved by 2030, including goals for ending poverty, fighting inequality and injustice, and tackling climate change. The SDGs are not just a blueprint but a comprehensive action plan for businesses, governments, and communities to support the shared prosperity of people and the planet. Organizations are expected to develop long-term frameworks and take ownership of this push for sustainability to realize the SDGs and create a better world.

Hitachi considers responding to these challenges to realize a sustainable society and improve quality of life to be the aim of our Social Innovation Business and a source of sustainable growth.

Accordingly, through innovative solutions and products from our Social Innovation Business, we will strive to create economic, social, and environmental value as part of our management strategy. We will also 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.

Along the way, in response to rising interest in corporate ESG initiatives, we will proactively disclose information to our stakeholders about our efforts toward achieving these SDGs.

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

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

Identifying Key Social Challenges

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 the 11 Goals that pose the most important social challenges for Hitachi: 5 Goals where Hitachi can make significant impact through its business strategy, and 6 additional Goals relevant to its corporate commitment to society, cutting across all areas of business and management strategy to affect Hitachi's very sustainability as a company.

Embracing the belief that Hitachi can contribute broadly to the achievement of the SDGs through a wide range of business activities, the company is also investigating options for supporting the remaining six Goals in the short to medium term. We are committed to supporting efforts to reach all SDGs, both directly and indirectly, especially in terms of the interaction and interdependence between them.

Tackling the SDGs with Our Business Strategy

To select the SDGs where Hitachi can make the greatest impact through its business strategy, all business units (BUs) and key Group companies spent nearly a year reviewing the 17 SDGs and 169 targets in light of the contributions Hitachi could make through its core business, making recommendations to the Executive Sustainability Committee.

Hitachi identified five SDGs where it can have a significant impact: Ensure healthy lives and promote well-being for all at all ages (Goal 3); Ensure availability and sustainable management of water and sanitation for all (6); Ensure access to affordable, reliable, sustainable, modern energy for all (7); Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation (9); and Make cities and human settlements

inclusive, safe, resilient, and sustainable (11). These are the five SDGs best aligned with our business strategy across the four focus business domains of our Social Innovation Business: "power and energy," "industry, distribution, and water," "urban," and "finance, social, and healthcare." We will continue to promote our Social Innovation Business, as we believe that working toward these goals will provide not only growth opportunities but also the chance to create social values through business.

Tackling the SDGs with Our Corporate Commitment

To meet the expectations of our stakeholders and fulfill our social responsibilities, we identified six additional SDGs we can help achieve throughout our operations: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all (Goal 4); Achieve gender equality and empower all women and girls (5); Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all (8); Ensure sustainable consumption and production patterns (12); Take urgent action to combat climate change and its impacts (13); and Strengthen the means of implementation and revitalize the global partnership for sustainable development (17). Hitachi believes that activities to help achieve these targets also have an important impact on sustainable management.

Sustainability initiatives have been developed in cooperation with divisions closely connected to sustainability issues, such as the human resources division and procurement division while ensuring compliance with management policies such as the Hitachi Group Codes of Conduct, the Hitachi Group Human Rights Policy, and Hitachi Environmental Innovation 2050. We will make steady progress by setting specific targets for each initiative.

Dialogue on Sustainability Strategy

In March 2018 a European Stakeholder Dialogue on the subject of "Hitachi's Sustainability Strategy" was held in Brussel, Belgium with 18 participants from international organizations, NGOs, sustainably advanced companies, and other groups. Yukiko Araki, executive general manager of the Sustainability Promotion Division, spoke at the event about the 11 SDGs that pose the most important social challenges for Hitachi. We received a number of constructive comments and suggestions from attendees and will share them with our corporate divisions, BUs, and key Group companies to ensure that they are reflected in our initiatives and further enhance cooperation in setting specific key performance indicators (KPIs).

Comments and Suggestions from the Stakeholder Dialogue

- Hitachi's information and communication technologies could be a key driver for achieving the SDGs.
- Though Hitachi is a B2B company, it needs to understand how its technologies are used by and for end users.
- Awareness of which SDGs a product will help achieve from the product planning stage makes a difference and gives Hitachi a competitive edge.
- Hitachi must rank its target SDGs by priority and incorporate its sustainability strategy into its global management strategy.
- Further external communication is required to specifically explain how Hitachi's Social Innovation Business will help achieve the SDGs.

Road Map for Achieving the SDGs

Creating a sustainable society will make sustainable growth possible for Hitachi too. Though we are mostly known for B2B (business to business) activities, our Social Innovation Business is intrinsically rooted in B2S (business to society). All our products and services are closely linked to social sustainability, and we aim to establish a global position as a B2S company through efforts to help achieve the SDGs.

In fiscal 2017, Hitachi officially launched activities intended to make a concrete contribution toward the SDGs. In phase 1, we began helping our business units and Group companies deepen their understanding of sustainability and the SDGs, and sustainability workshops were held for the Water, Energy Solutions, and Healthcare Business Units. In February 2018, we held a sustainability symposium, inviting as guest speaker Mr. Toshio Arima, chairman of the board, Global Compact Network Japan. The symposium was attended by about 130 employees and directors, including President Higashihara. We also launched a sustainability newsletter in an effort to promote awareness of SDG initiatives. In phase 2, the Sustainability Promotion Division worked with the planning divisions of business units and key Group companies to clarify how their businesses are linked to the SDGs in terms of opportunity and risk.

In phase 3, starting in fiscal 2018, Hitachi will seek new business opportunities emerging from social challenges. By setting specific quantitative KPIs for social and environmental values provided by our Social Innovation Business, we will monitor progress to achieve further business development. Sustainability initiatives already launched include a requirement to describe "factors allowing a contribution to meeting the SDGs" on the internal application form for a business startup. We are determined to reflect our sustainability initiatives in our next Mid-term Management Plan. Hitachi believes that its efforts toward achieving the SDGs and sustainability will enable the company to grow.

FY 2017

Phase 1

Understand sustainability and the SDGs

Increase understanding through CEO messages, symposiums, workshops, newsletters, and so on.

FY 2017

Phase 2

Classify the existing businesses based on the SDGs

Classify social value/business opportunities and risks of existing businesses based on the SDGs in collaboration mainly with business strategy divisions in each BU/Group company.

FY 2018 and beyond

Phase 3

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

Achieving a "sustainable society" (the sustainability of society) enables "Hitachi's sustainable growth" (the sustainability of Hitachi). **Hitachi's future business opportunities and growth depend on achieving the SDGs and sustainability (solving social issues).** Therefore, apply this concept to our medium- and long-term business strategies.

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

Our Business Units and the SDGs

Nuclear Energy Business Unit

Contributing to Effectively Using Energy Resources and Reducing CO$_2$ Emissions

Hidetoshi Takehara
Vice President and Executive Officer
CEO of Nuclear Energy Business Unit

Hitachi's Nuclear Energy Business Unit has been involved in nuclear power plant construction and maintenance for many years, always working to push nuclear technology forward and cultivate key core competencies

Key SDGs for Our Business Unit

Advanced Boiling Water Reactors (ABWRs) that will help Hitachi contribute to Goals 7, 9, 13, and 17.

in our people. Our current activities within Japan include early restarting of nuclear power plants and decommissioning of Fukushima Daiichi Nuclear Plant, and promoting construction planning for Advanced Boiling Water Reactors (ABWRs) for the United Kingdom.

Following the Fukushima accident in 2011, low social acceptance of nuclear power has made it difficult to attract the next generation of engineers. In Japan's neighbor, China, the amount of electricity generated by nuclear power is rapidly increasing. If an accident were to occur in a neighboring country, it could have a significant impact on Japan. Reducing the risks requires enhancing the safety of nuclear plants within Japan; working with the International Atomic Energy Agency (IAEA) to provide information about safety enhancement to neighboring countries; sustainably maintaining the technology and human resources necessary to handle incidents; and continuing to build the experience necessary to support these activities.

We are focusing our efforts on the achievement of Goals 7 and 13 of the SDGs to stabilize the energy supply and address climate change, and Goals 4, 9, and 17 to develop the nuclear industry and human resources. We will continue striving to ensure that the importance of nuclear power in the optimal mix of energy generation is recognized.

Power Business Unit

Contributing to Sustainable Development with Stable Supplies of Energy

The Power Business Unit provides an array of power generation and transmission solutions to companies engaged in the energy value chain. We are particularly focused on meeting the expanding demand for renewable energy, and we claim the top share of the Japanese market for wind power generating systems.

The business environment in which we operate is undergoing a major transformation due to climate change and the growing demand for energy in emerging economies, and business opportunities are growing. A qualitative expansion of renewable sources in Japan, though, will require enhanced adjustment mechanisms to respond to changing

Key SDGs for Our Business Unit

Hitachi's Wind Power Generation System helps achieve Goals 7 and 13.

Atsushi Oda
Vice President and Executive Officer
CEO of Power Business Unit

weather conditions and a reinforced power grid. We will respond to such risks as delays in the spread of renewable energy owing to lack of coordination among various systems and the potential damage that power plant construction may cause to the environment by applying the technologies and knowhow developed in building and maintaining power plants. We will also advance the digitization of power systems using Hitachi's IoT platform, Lumada, and actively offer highly reliable and high-added-value solutions to our customers.

We are committed to achieving Goals 7 and 13 and are strengthening our partnerships with national and local governments, electric power companies, and universities to also contribute to the achievement of Goal 17. We will adopt key performance indicators as a way of demonstrating how much Hitachi is contributing to the achievement of energy-related SDGs.

Industry & Distribution Business Unit

Offering Innovative Solutions to Overcome Worker Shortages

Jun Abe
Vice President and Executive Officer
CEO of Industry & Distribution Business Unit

The Industry & Distribution Business Unit offers a variety of digital solutions for the industrial and distribution sectors by leveraging Hitachi's strengths in

Key SDGs for Our Business Unit

Providing digital solutions to support our customers' business operations and contribute to the achievement of Goal 9 (Brazing Skills Training Support System for Daikin Industries, Ltd.).

operational technology (OT), IT, and products.

The decline in the working-age population is not just a problem for Japan but is also an issue in China and Europe. In addition to streamlining and automation, the manufacturing and distribution sectors will need to diversify their workforce. This trend represents new business opportunities for us.

Even when production is automated, there are times when the skills and knowledge of veteran workers are required. Our business unit collects and digitizes the skills of expert workers utilizing IoT to help customers efficiently enhance the skills of their workers, develop global human resources, and improve quality.

Business expansion and higher production carry the risk of increasing emissions of greenhouse gases and the generation of industrial waste. We will counter such risks by optimizing production plans, improving quality, and reducing our environmental burden.

Our business unit is primarily engaged in achieving Goal 9. By offering solutions not only in the realm of production but also logistics and maintenance and repairs, we hope to enhance our social and environmental value, thereby contributing to the attainment of Goals 7, 8, 12, and 13.
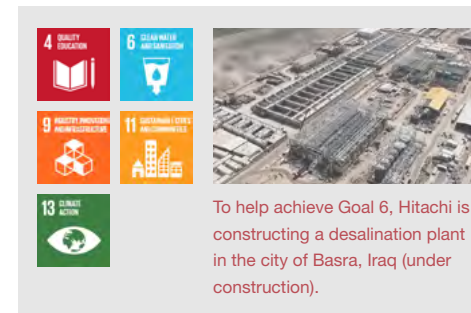
Water Business Unit

A Stable Water Supply and Sanitary Conditions for People Worldwide

The Water Business Unit globally provides total water environment solutions, including critical infrastructure for potable water, wastewater treatment, and recycling, to contribute to the resolution of water-infrastructure-related social issues.

Recently, we have increasingly been called to not only build large-scale facilities and other water infrastructure but also meet rising operational and maintenance demand to ensure safe and stable supplies of water. The expertise we have accumulated over many years in operational technology (OT) is a strength we can apply—along with IoT and AI—to raise the efficiency of our desalination plants and enhance the reliability of water-supply and sewage-treatment operations. There are

Key SDGs for Our Business Unit

To help achieve Goal 6, Hitachi is constructing a desalination plant in the city of Basra, Iraq (under construction).

Kenji Urase
Vice President and Executive Officer
CEO of Water Business Unit

risks that high-salinity wastewater generated as a by-product of seawater desalination can increase the burden we place on the environment, but we are developing new technologies and forging partnerships with national and local governments and other stakeholders to reduce risk and support people's lifestyles from a long-term perspective. Through these activities, we aim to build a recurring business model.

The activities of the Water Business Unit are linked directly to the achievement of Goal 6 and have relevance for Goals 9 and 13. By developing the skills of water experts, we also help achieve Goal 4. An increasing number of young Hitachi employees are eager to become engaged in the global water environment business, and we will expand arenas of activity for them as we pursue Hitachi's sustainable development toward the SDGs target date of 2030.

Industrial Products Business Unit

Hitachi's Contributions to the Achievement of the SDGs

Keizo Kobayashi
Vice President and Executive Officer
CEO of Industrial Products Business Unit

The Industrial Products Business Unit inherited the motor business with which Hitachi was founded and globally provides key products that support the Social Innovation Business for trains, offshore wind turbines, renewable energy, and water and sewage treatment plants.

We believe that our products and services can contribute to the SDGs, resolving climate-change issues and improving quality of life. The growing demand for renewable energy and more efficient uses of energy and resources represents a major business opportunity. But there are also risks: the cost of renewable energy may exceed the range anticipated for the planned energy mix. Moreover, our business in itself can lead to risk as the volume of industrial waste may temporarily rise as facilities are replaced. Our business strategy will include measures to mitigate such risks.

We are proud that we can help achieve Goals 7 and 9, in particular, with our main products and services. We are also contributing to Goal 4 through our training programs at our production sites in China and India. Our business strategy already incorporates measures to contribute to the achievement of the SDGs, and we are now discussing what are the products and services that only Hitachi can provide and that will lead not only to the sustainable development of society but also to Hitachi's long-term sustainability.

Key SDGs for Our Business Unit

The key products that support the Social Innovation Business and that contribute to Goals 7 and 9.

Building Systems Business Unit

Providing Products and Services That Realize Safety, Security, and Comfort

Our business unit recognizes many pressing social issues including deterioration of equipment in highly urbanized countries and regions, labor shortages in aging societies, and increased incidence of natural disasters due to climate change. We see business opportunities in two areas in particular: first, reducing the energy consumption of building equipment such as elevators and escalators, lighting, and heating, ventilation, and air conditioning (HVAC); and second, providing safety, security, and comfort—an area seeing increasing interest.

Elevators tend to fade into the background, but even the healthiest person notices the inconvenience of climbing ten or more flights of stairs on foot when one goes out of service. Particularly in today's aging societies, such outages must be avoided. We have been networking building equipment such as elevators in Japan for 20 years now, detecting malfunctions and minimizing the impact on daily life through data analysis and preventative maintenance. Indispensable to resilient, sustainable communities offering safety, security, and comfort, our products and services are in themselves contributions to achieving the SDGs.

Goal 11 is a particular focus of our business, and we also support Goals 9 and 13 through environmental and technological initiatives. Our contribution to Goal 8 is the employment created by our global expansion, workstyle reforms, and efficiency gains through IoT and AI.

Hideaki Seki
Senior Vice President and Executive Officer
CEO of Building Systems Business Unit

Key SDGs for Our Business Unit

Smart building services to help achieve Goal 11.

Railway Systems Business Unit

Resolving Social Issues Through Better, More Efficient Transportation

Alistair Dormer
Senior Vice President and Executive Officer
CEO of Railway Systems Business Unit

Hitachi's Railway Systems Business Unit is a fully integrated global provider of rail solutions with a presence in 27 countries. The rail sector is intimately connected to everyday life, putting it in a unique position to offer business solutions to social issues. As society seeks for ways to ease congestion, metro trains and monorails become increasingly attractive. Between cities, too, high-speed rail is an environmentally friendly alternative to car and air travel, producing 3 to 5 times less CO_2 per passenger kilometer.

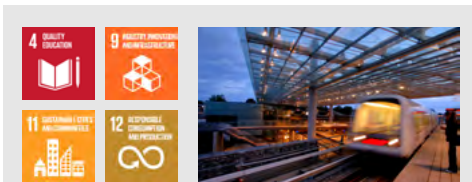Delays in production and reliability issues have the potential to undermine the unit's operations. To ensure that we deliver on our contracts and promises, we are implementing efficient production facilities, effective project management, robust testing and commissioning, and stringent quality assurance and control. Energy shortages and climate change are other risks that affect the unit.

The SDGs underpin everything we do. Our Business Strategy primarily addresses Goals 9 and 11, while our Corporate Commitment is focused mainly on Goals 4 and 12, although Goals 8 and 13 are also important in this area. Contracts around the world increasingly require proof of sustainability, and this is something we are working on with suppliers and clients alike.

Key SDGs for Our Business Unit

Railway solutions like those used on the Copenhagen Metro help achieve Goals 9 and 11.

Financial Institutions Business Unit

Solving the Problems of Financial Institutions and Society Through Customer Collaboration

The Financial Institutions Business Unit develops systems and integration services for megabanks, insurance and securities firms, and regional financial institutions across Japan, and is expanding to other countries.

We work closely with our customers to solve social issues in the financial industry, from financial crimes to illiquid "under the mattress" cash storing, as well as the "financial divide" (differences in available financial services) widening both within Japan as the nation's shrinking population ages and in developing areas around the world.

Cash not only creates the risk of money laundering, but is also a burden on the financial institutions that must transport and secure it.
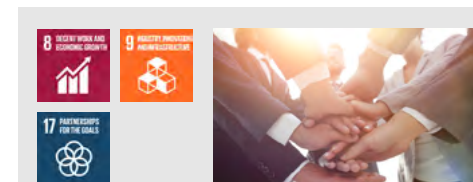
Tsugio Yamamoto
Vice President and Executive Officer
CEO of Financial Institutions Business Unit

We believe Japan will follow other countries and become a cashless society, and that this will be a business opportunity for us.

Cyber attacks are the largest risk we face, and we make all efforts to prevent data leakage, especially of personal information.

All of the SDGs are important to us, but we focus mostly on achieving Goal 9. We also wish to contribute to Goal 8 by promoting better workstyles. Because we are closely connected to social development in terms of financial infrastructure, we have taken the SDGs as a guide for all of our employees in order to contribute to society.

Key SDGs for Our Business Unit

Solutions that use AI and big data contribute to the achievement of Goal 9.

Social Infrastructure Systems Business Unit

Bringing New Value to the World by Realizing "Society 5.0"

Katsuya Nagano
Vice President and Executive Officer
CEO of Social Infrastructure Systems Business Unit

The Social Infrastructure Systems Business Unit provides solutions for customers in the public sector—for example, government offices and local governments—and social infrastructure such as the energy and rail industries.

Key SDGs for Our Business Unit

An image of the society we aim to realize by contributing to achieving Goals 3, 9, and 11.

As part of addressing the full range of social challenges that depopulation and an aging society will bring, we are trying to contribute to realizing the Japanese government's "Society 5.0" proposal to solve Japan's social issues. Most themes of this proposal, including "Extending the nation's healthy life expectancy" and "Building safe, convenient, and economical next-generation infrastructure," are related to our business opportunities. When we plan a business, we regard the achievement of the SDGs as one of the guidelines. Then, through our actual business activities, we contribute to solving social issues.

During the "Japanese economic miracle," our customers found value in high productivity to meet the needs of mass production. However, improving productivity is no longer valuable. We believe that we need to create new value by establishing an approach to providing targeted support that meets individual requirements. We will also treat potential changes in the systems and regulations of countries and regions as risks as we continue to contribute to society through our business.

We believe that contributing to achieve the SDGs is essential for us to survive as a company. Our business mainly contributes to achieving Goals 3, 7, 9, and 11, and, more broadly, Goal 16.

Healthcare Business Unit

Ensuring Healthier Lives for People Worldwide Through Hitachi's Solutions

A healthy population is the foundation for a sustainable society, and the Healthcare Business Unit contributes to achieving this by providing healthcare equipment and solutions (including diagnostic imaging systems, in vitro diagnostics, particle beam therapy systems, radiation therapy systems, and smart operating rooms) to 80 countries worldwide.

Achieving basic universal health coverage (UHC) across developing countries and emerging powers will require support from international society. This issue is particularly important for developing countries, where around 800 million people lack adequate care today. In developed countries, aging populations are changing the face of healthcare, with

Key SDGs for Our Business Unit

Hitachi's smart operating room solution helps achieve Goal 3.
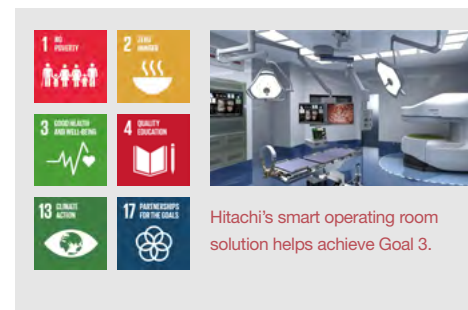
Masaya Watanabe
Vice President and Executive Officer
CEO of Healthcare Business Unit

initiatives like value-based medicine in the United States, regional comprehensive care in Japan, and data-analysis services aiming to meet new needs for sustainable social insurance and in-home care.

We aim to resolve these global issues by focusing on Goal 3 of the SDGs: Good health and well-being. This will also require addressing Goals 1 and 2, which call for the elimination of poverty and hunger. The professional development of healthcare providers needed for UHC will also make Goal 4 a necessity. We also contribute to a wide range of other SDGs through partnerships with stakeholders and provision of environmentally responsible healthcare equipment. Going forward, we will approach our daily business conscious of the importance of our work and proud of the contribution we make.

Innovation Management

A Century of Research and Development at Hitachi

The Research & Development Group, which finds its origins as the Research Team of the Hitachi Mine of the Kuhara Mining Company celebrates its centennial anniversary in 2018. The Group has delivered innovation for the future while pursing cutting-edge research and development activities in each era to execute the Corporate Credo "to contribute to society through the development of superior, original technology and products."

In this centennial anniversary year, the Research & Development Group reaffirms its commitment to the corporate Mission, and with the Hitachi Values of "Harmony," "Sincerity," and "Pioneering Spirit" deeply ingrained in our hearts, is supporting the company goal to become the "Innovation partner for the IoT era" through research and development, and lead future growth though collaborative creation with customers.
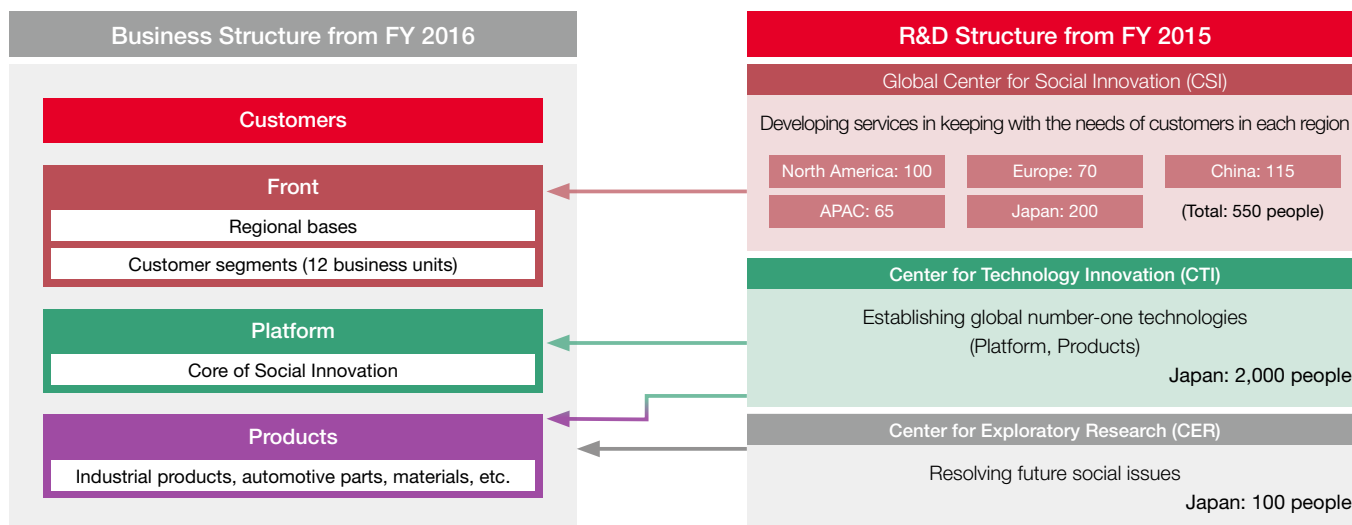
Customer-Driven R&D and Hitachi's Business Structure

To accelerate collaborative creation with customers, the Research & Development Group was realigned into a more customer-driven research structure in April 2015. Three research laboratories in Japan—the Central Research Laboratory, Hitachi Research Laboratory, and Yokohama Research Laboratory—were consolidated along with the Design Division and overseas research centers and regrouped into the Global Center for Social Innovation (CSI), the Center for Technology Innovation (CTI), and the Center for Exploratory Research (CER). This R&D structure supports the new market-driven business structure created in April 2016 along the lines of the "Front" (the customer interface), "Platform," and "Products," to drive our Social Innovation business.

Under this structure, CSI is developing services to meet the needs of regional customers and the 12 Front business units (BUs). To carry out collaborative creation with customers

globally, CSI has locations in five key regions—Japan, Asia-Pacific (APAC), North America, China, and Europe—with about 350 of approximately 550 CSI personnel assigned outside Japan. In April 2017, a new office was opened in London to facilitate collaborative creation in Europe. Furthermore, a global research team, the Insights Laboratory, was established the same month to accelerate the delivery of digital solutions. In December 2017, two new facilities were established in China: a collaborative creation center in Beijing, and the Open Automation Laboratory in Guangzhou, a facility for collaborative creation in the field of industry. CSI will leverage these co-creation spaces to accelerate co-creation globally with customers.

CTI is delivering new value to customers in various sectors by working with the Platform BUs that provide the backbone of Social Innovation, as well as the Product BUs responsible for the highly competitive key components that support services, to generate digital solutions combining OT (operational technology) and IT.

The CER is conducting cutting-edge research to realize a human-centric society that pursues the fundamental human goals of "outcomes and well-being," working in collaboration with various research institutions to resolve future social challenges.

Research & Development Group Structure

Business Structure from FY 2016

- Customers
- Front
  - Regional bases
  - Customer segments (12 business units)
- Platform
  - Core of Social Innovation
- Products
  - Industrial products, automotive parts, materials, etc.

R&D Structure from FY 2015

Global Center for Social Innovation (CSI)

Developing services in keeping with the needs of customers in each region

| North America: 100 | Europe: 70 | China: 115 |
| APAC: 65 | Japan: 200 | (Total: 550 people) |

Center for Technology Innovation (CTI)

Establishing global number-one technologies
(Platform, Products)
Japan: 2,000 people

Center for Exploratory Research (CER)

Resolving future social issues
Japan: 100 people

R&D Initiatives Toward Creating New Value Through Hitachi's Social Innovation Business

In collaborative creation with customers, new value is created by sharing challenges and visions to design a business model, and by actualizing that model through verification and simulation. This requires an open and secure platform that connects the systems of many stakeholders. To realize this, Hitachi launched the Lumada IoT platform and began offering services in fiscal 2016. In co-creation using Lumada, the Research & Development Group is using NEXPERIENCE, a systemized methodology for collaborative creation, to enhance Lumada customer cases and solution cores. By resolving our customers' issues, we aim to not only deliver satisfaction to our customers but also strengthen our core technology. Further, a positive cycle of gaining insights into potential new business areas has also begun, building on customer cases.

To extend these initiatives globally, the Research & Development Group will be promoting Open Innovation through activities such as building innovation ecosystems through industry–government–academia collaboration.

Step 1 (From FY 2015)

Co-create with customers

Build global CSI network

- Systematize NEXPERIENCE—a methodology for co-creation
- Co-creation activities

Step 2 (FY 2016–FY 2017)

Digital innovation

Co-create with Lumada

- Utilize NEXPERIENCE
- Increase customer cases & solution cores
- Develop AI/IoT tool sets

Step 3 (FY 2018 and beyond)

Scale up globally

Accelerate with open innovation

- Expand co-creation centers
- Establish industry–government–academia ecosystem

R&D Directives for Fiscal 2018

The Research & Development Group has a variety of ongoing initiatives as part of its mission to become a global innovation leader and drive Hitachi's evolution toward a global company. The three specific challenges the group has set for itself are "Monetize capability aimed at expanding the Social Innovation Business," "Increase world-leading products and services," and "Participate and engage with global communities." Three directives have been established to ensure that these challenges are overcome.

R&D Directives for Fiscal 2018

Become a Global Innovation Leader to Drive the Evolution Toward a Global Company	
Hitachi Challenge	**Directive**
Monetize capability aimed at expanding the SIB*1	**Enhance co-creation of global solutions** • Shift from point solutions to connected industries • Focus on growth domains & regions
Increase world-leading products and services	**Create and focus on world-leading technology** • Create top technology to support SIB • Accelerate open innovation
Participate and engage with global communities	**Promote basic research to resolve social issues** • Create disruptive technology • Create visions to lead Society 5.0

*1 SIB: Social Innovation Business.

▶ Enhancing Co-Creation of Global Solutions

Shifting from Point Solutions to Connected Industries

To further enhance collaborative creation with customers, the Research & Development Group intends to shift its focus from developing point solutions for individual customers to providing "Connected Industries" solutions. These will connect the various solutions provided to customers in different industry sectors to deliver even greater value. One concrete example is connecting SME customers in the manufacturing field with financial institutions, to manage and share global supply chain information. Digitizing customer orders to suppliers using a blockchain platform will not only improve efficiency in procurement and inventory management but will also enable financial institutions to swiftly make real-time decisions on matters such as settlement and financing. Further, the Research & Development Group will be strengthening initiatives addressing growth areas and social challenges in each global region, to contribute to the expansion of Hitachi's global solutions business.

Focusing on Growth Areas and Regions

The Research & Development Group is focusing on Hitachi's four focus business domains of "power and energy," "industry, distribution, and water," "urban," and "finance, social, and healthcare" according to the individual needs of each global region in terms of growth areas and challenges in that society.

CSI-APAC is focusing on the industry, finance, and social areas, working to create a digital infrastructure business in collaboration with governments. In Thailand, it is moving forward with the creation of a digital business centered on manufacturing.

CSI-North America is focusing on the industry and finance areas, with plans to expand from maintenance to mobility services, as well as blockchain verification and business development.

CSI-China is focusing on the healthcare and urban areas, developing its digital businesses in response to the "Healthy China 2030" policy, and aims to expand in elevator and escalator installation and maintenance and digital solutions.

CSI-Europe is focusing on the urban area as the railway business expands from rolling stock and signaling to a services business, promoting its Dynamic Headway solution for optimizing operational planning based on people flow analysis.

▶ Creating and Focusing on World-Leading Technology

Creating World-Leading Technology to Support the Social Innovation Business

The Research & Development Group is also actively working on creating world-leading technology to support Hitachi's Social Innovation Business. For example, it is developing technology for high-speed railway and traffic management systems, pursing increased safety, comfort, and convenience, to contribute to business expansion in Europe. In the field of elevator design, flow analysis developed for railways was combined with experience to redesign the elevator carriage and realize the world's fastest elevator. In the industry area, the world's first amorphous motor integrated oil-free scroll compressor that is both compact and highly energy-efficient was developed and launched as a product. We will continue to foster the development of world-leading technology in the areas of autonomous driving, smart manufacturing, AI, and robotics.

In order to create world-leading technology, it is essential to use digital technology and increase the value of Hitachi's OT, IT, and products. To realize this, human resources are extremely important. The Hitachi Group is aiming to increase the number of data scientists it employs to 3,000 by fiscal 2021, and is currently enhancing its training program as well as setting up a "professional community" of top-class researchers and experienced professionals in each area. In this community, the Research & Development Group will play a leading role in further developing core technology and value creation.

Accelerating Open Innovation

To realize innovative technology development that cannot be achieved by one company alone, the Research & Development Group is collaborating with research institutes, universities, the open source community, customers, and start-ups both within and outside of Japan to build an open research environment to further enhance technology platforms.

In Japan, joint research laboratories were established within the University of Tokyo, Kyoto University, and Hokkaido University in June 2016 to work toward the realization of the "Super Smart Society" (Society 5.0)*1 proposed by the Japanese government. In April 2017, the Hitachi Kobe Laboratory was opened within the Kobe Biomedical Innovation Cluster as a development facility to achieve practical applications for regenerative medicine. These centers will seek insights into future social challenges and propose visions and innovations that can both resolve those challenges and contribute to economic development. Globally, as well as its links with the University of Michigan around autonomous driving technology, Hitachi has established joint laboratories with three Chinese universities where it is currently working on joint research projects leveraging the strengths of each institution: Tsinghua University for IT, Shanghai Jiao Tong University for materials, and South China University of Technology for manufacturing.

As part of our open source community activity, we are also actively promoting participation in open projects and consortiums in areas such as blockchain and edge computing. In 2016, Hitachi became a premier member of the Hyperledger Project for blockchain technology, an area of rising interest in FinTech and other fields. Additionally, we are one of 46 groups from North America, Europe, and Asia participating in the OpenFog Consortium and play a key role in the Japan regional committee. Aiming to go beyond the traditional boundaries of business and industry to create new value in the edge computing domain, in February 2018, Hitachi joined the board of the Edgecross Consortium, which was established with the goal of contributing to IoT for manufacturing. Additionally, in April

2018, Hitachi established a joint company with Fanuc Corporation and Preferred Networks, Inc. (PFN) to lead the world in developing intelligent edge systems for the fields of industry and social infrastructure. Moving forward, Hitachi will promote open innovation with start-ups through its investment in Geodesic Capital Fund I-S.

*1 Super Smart Society (Society 5.0): A proposal from the Japanese government to create a new type of society. The proposal envisages using AI, IoT, robotics, and other innovations in science and technology and making use of a range of data within society to achieve both economic development and the resolution of social issues, creating a society where all people can live rewarding, comfortable lives.

▶ Promoting Basic Research to Resolve Social Issues

Accelerating the Creation of Disruptive Technology

At Hitachi, we believe that disruptive technology is an essential part of driving technological development toward resolving social issues. Successful examples from fiscal 2017 include Ultrasound CT and the CMOS annealing machine based on quantum computing technology.

The CMOS annealing machine, which can process the enormous volume of calculations required to solve combinatorial optimization problems in a realistic time frame to find practical solutions to social challenges constantly increasing in scale and complexity, achieved a world-leading 100,000-bit processing level in June 2018. As a result, to give just one example of its applications, it was able to conduct the calculations needed to determine the optimal routing to ease traffic congestion for 2,000 cars on 160 vertical and horizontal roads.

Creating Visions to Lead Society 5.0

Sharing and reaching consensus on future visions and the creation of disruptive technology will be indispensable for resolving social issues. Through its joint research centers at the University of Tokyo, Kyoto University, and Hokkaido University,

Hitachi is creating visions for Society 5.0. The Hitachi The University of Tokyo Laboratory is addressing urban development and energy systems, the Hitachi Kyoto University Laboratory is addressing anticipated social challenges in 2050, and the Hitachi Hokkaido University Laboratory is addressing regional issues and food and health. All have begun sharing their visions globally. For urban planning in particular, the company is exploring visions of future cities, models for resolving social challenges, and business models that could help achieve the goals of a decarbonized, 100-year life society and regional revitalization. In June 2018, an open forum was held to deepen discussion with stakeholders.

Hitachi believes that these initiatives will also contribute to Goal 17 of the SDGs, "Partnerships for the goals," and will identify concrete research challenges the results of which can be promoted as sources for sustainable development.
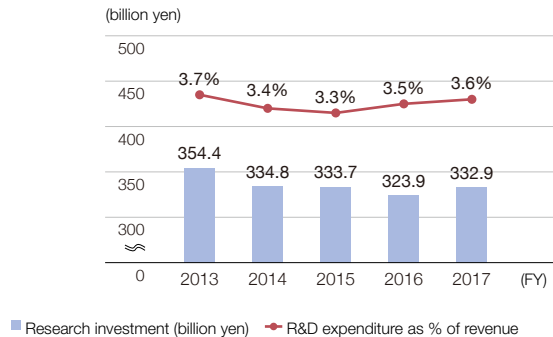
R&D Planning and Budget

R&D investment by the Hitachi Group is equivalent to about 4% of revenue, and is used to strengthen the four focus business domains and open innovation, focusing on our Social Innovation Business. Approximately one-fifth of this amount represents the expenditure of the Research & Development Group, which can be further divided into Sponsored and Advanced Sponsored Research from the business units and Hitachi Group companies based on the Business Roadmap, and Frontier and Platform Research based on the mid-long term Technology Roadmap. The aim of Sponsored and Advanced Sponsored Research is to expand and grow core businesses with a target date for practical applications within three to five years. Frontier and Platform Research aims to strengthen collaborative creation with customers and technical platforms, and to create new businesses.

In fiscal 2017, investment in Frontier and Platform Research was concentrated on the four focus business domains identified in the 2018 Mid-term Management Plan—power and energy; industry, distribution, and water; urban; and finance, social, and healthcare—as well as digital solutions (Social Innovation Business using digital technology) that contributed to the evolution of the Lumada IoT platform.

In fiscal 2018, we will strengthen our investment in Frontier and Platform Research, particularly in digital solutions. Further, in the same fiscal year, the Research & Development Group will invest toward accelerating open innovation 1.6 times the amount invested in fiscal 2015.

Key Indicators

● R&D Expenditure (Hitachi Group)

(billion yen)

	2013	2014	2015	2016	2017 (FY)
R&D expenditure as % of revenue	3.7%	3.4%	3.3%	3.5%	3.6%
Research investment (billion yen)	354.4	334.8	333.7	323.9	332.9

■ Research investment (billion yen)　●— R&D expenditure as % of revenue

● Allocation of Research & Development Group Funds

Frontier and Platform Research **33%**

Sponsored Research **48%**

R&D Expenditure*1 FY 2018

Advanced Sponsored Research **19%**

Digital Solutions

(billion yen)

	2016	2017	2018 (FY)
	14	15	18

● Total: **47** billion yen
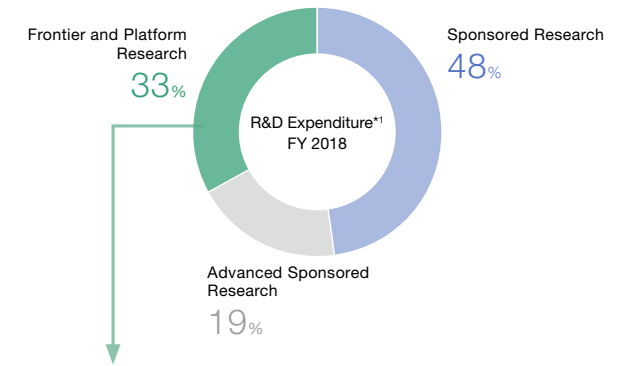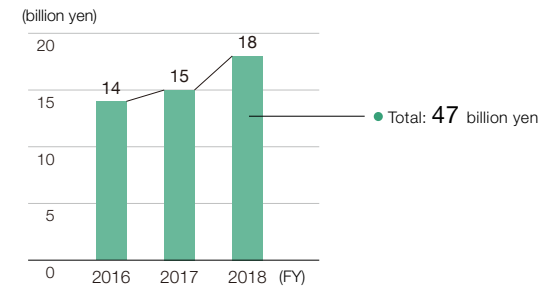
*1 Roughly 20% of total Hitachi Group R&D expenditure.

R&D Ethics Reviews

In September 2000, Hitachi established an ethical review committee to oversee the handling of information from human genome analysis. It was the first such committee to be formed by a company manufacturing medical devices in Japan. The majority of the committee members are external experts, and the committee meets two or more times a year. Currently, the committee's activity is governed by ethical guidelines based on government directives outlined in documents such as the "Ethical Guidelines for Clinical Research" and the "Ethical Guidelines for Human Genome/Gene Analysis Research."*1

All Hitachi business divisions and Group companies whose activities require review are expected to demonstrate a high level of corporate social responsibility, and high ethical standards are expected of researchers and staff as well.

Intellectual Property

▶ Supporting Our Social Innovation Business with IP Activities

Intellectual property (IP) is a key element of Hitachi's business strategy. In our Social Innovation Business, we plan and implement IP strategies appropriate to each area of our product and digital solution businesses.

In our 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 recognition of these efforts, in 2017 Clarivate Analytics included Hitachi in its Top 100 Global Innovators for the seventh consecutive year, and the Japan Institute of Invention and Innovation presented Hitachi with its second consecutive National Commendation for Invention.

In our digital solution business, on the other hand, IP strategies are indispensable for collaborative creation. As collaboration with our customers and partners increases, we believe it is important to use IP to promote partnerships and to build ecosystems. We take a broad view of "intellectual property," which goes beyond patents, copyrights, and trade secrets to include other data and information assets as well. In recent years, attention has been drawn to liabilities and ethical issues arising from the application of artificial intelligence, robots, and autonomous-driving technologies. There is also a growing trend toward data localization, as seen in the European General Data Protection Regulation (GDPR). We will accelerate our IP activities by accumulating findings and knowledge about these new technologies, along with national/regional rules and regulations.

The scope of our IP activities continues to expand as the digital transformation proceeds. We will promote new IP activities, leveraging our strengths built over long years of experience in areas requiring integrated knowledge of management, law, and technology. Through our IP activities toward promoting data use, we will contribute to our Social Innovation Business as well as to the achievement of the SDGs as we aim to realize Society 5.0.

🖱 Hitachi Group Codes of Conduct: 6. Protection of Intellectual Property and Brand

Two Types of IP Activities for Social Innovation Business

	Product Business	Digital Solution Business	
IP Strategy	Strategy for Competitiveness	Strategy for Collaborative Creation	
IP Role	Enhancing competitiveness	• Promoting partnership with customers & partners • Establishing ecosystems	IP — Data / Information / Trade secrets, copyright / IP rights (patents)
Activities	• Acquiring IP rights • Using IP right in conformity with business	• Securing BGIP of core tech • Designing business model & contract • Rule-making, standardization	
Scope	Patents, design patents, trademarks, patent licenses	IP Assets (including business contracts, data, trade secrets & copyright, in addition to the items at left)	
External Activities	Public comments, secondment to government agencies, collaboration with academia		

▶ Supporting our Global Business with IP Activities

One of the IP activities supporting our global operations is the development of a global patent portfolio to ensure worldwide protection for innovations emerging from our R&D and prevent competitors from imitating the technological advantages that set us apart. The portfolio also enables us to demonstrate the advantages of those technologies to customers and provide patent licenses to other companies, spurring further collabora- tive creation. We increased our patent application ratio outside Japan from 47% in fiscal 2009 to 56% in fiscal 2017, and we will continue to efficiently build and maintain our global patent portfolio.

In tandem with efforts to globalize our R&D centers, we are also globalizing our IP hubs. We currently have 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 protect the innovations generated through R&D activities outside Japan.

Another key issue is developing globally minded IP human resources. Since fiscal 1964, Hitachi's Intellectual Property Division has operated an international job training system, se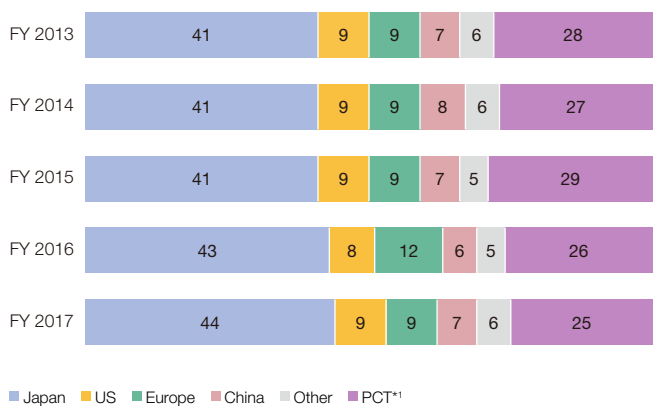nding trainees to IP law firms and Group companies in Europe and the United States and to study abroad. In fiscal 2017, three trainees went to the United States and one to Singapore, while one employee was sent to the United States and one to China's Special Administrative Region of Hong Kong to study.

Key Indicators

● Patent Application Ratios by Country or Region (Hitachi Group)

(%)

	Japan	US	Europe	China	Other	PCT*1
FY 2013	41	9	9	7	6	28
FY 2014	41	9	9	8	6	27
FY 2015	41	9	9	7	5	29
FY 2016	43	8	12	6	5	26
FY 2017	44	9	9	7	6	25

■ Japan ■ US ■ Europe ■ China ■ Other ■ PCT*1
*1 International applications filed for Patent Cooperation Treaty coverage.

▶ 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, the bulk of counterfeit goods were manufac- tured 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.

To stamp out counterfeit goods, it is also important to teach general consumers not to buy them. Hitachi conducts ongoing consumer awareness activities to eliminate counterfeit goods.

▶ 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 implemen- tation 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 commit- tee 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.

Understanding Issues Through Dialogue and Taking Part in Initiatives

Hitachi's Approach

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 and other stakeholders to resolve them. In conducting this business, we place importance on two-way communication with stakeholders and active participation in various initiatives in coordination with various groups.

Stakeholder Engagement

Communication with Stakeholders

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.

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	Customer Satisfaction pp. 80–81 / Quality Assurance Activities pp. 84–85 / Universal Design p. 82 / Rigorous Information Management p. 86 / Adaptation for Emerging Markets p. 83
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 600 times/year) • IR tools: *Integrated Report*, business reports, etc.	Stakeholder Engagement pp. 28–32
Suppliers	Building of fair and sound business relations, smooth information sharing toward better partnerships	• Procurement	• Procurement activities • Supplier meetings • CSR monitoring (131 companies/year) • CSR audits (18 companies/year)	Supply Chain Management pp. 74–78
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 (18 times/year) • Employee surveys (annual)	Diversity and Inclusion pp. 60–62 / Diverse Support Systems for Employees p. 64 / Developing Women's Careers pp. 62–63 / Occupational Health and Safety pp. 65–67 / Work-Life Management pp. 63–64 / Global Human Capital Development pp. 68–70 / Employing People with Disabilities p. 64 / Stakeholder Engagement pp. 28–32
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 pp. 28–32
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. 88–90
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. 21–27
NGOs and NPOs	Incorporation of diverse public opinions, promotion of stakeholder-focused management, social contribution through nonprofit activities	• CSR Promotion	• Stakeholder dialogue (3 times/year) • Dialogue through collaboration	Stakeholder Engagement pp. 28–32 / Social Contribution Activities pp. 88–90
Global Environment	Realization of a low-carbon society, a resource efficient society, a harmonized society with nature	• Environment • All Business Divisions	• Stakeholder dialogues (annual)	Environment pp. 91–127

Engagement with Customers

▶ Global Campaign Rollout

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

▶ Enhancing Management-Employee Communication

Since fiscal 2012, we have held town hall meetings as forums for direct dialogue between senior management and employees. In fiscal 2017, President and CEO Toshiaki Higashihara attended a total of 18 town hall meetings in Japan, the United States, Canada, Myanmar, Vietnam, the United Kingdom, and other countries.

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 2017, 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 eighth 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, and conducted a tour of the Omika Works to promote understanding of the Lumada business. 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 600 meetings. In addition, we hosted company information sessions tailored to individual investors to deepen their understanding of Hitachi. 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

Working with Governments and Public Policymakers

▶ 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.

Since 2016, Chairman of the Board and Executive Officer Hiroaki Nakanishi has taken part in the Council on Investments for the Future, founded in 2016 by the Japanese government, as a representative of corporations that seek to contribute to society and has actively participated in discussions of how Japan can build an ideal society. Chairman Nakanishi also served as vice chair of Keidanren (Japan Business Federation), particularly leading the discussion of cyber security, essential in maintaining and developing an advanced information society, and preparing proposals for submission. In the same way, Hitachi's President and CEO Toshiaki Higashihara serves as vice chair of the Japan Electronics and Information Technology Industries Association (JEITA), making efforts toward building an affluent society and promoting information and communication technology to contribute to resolving many social issues through exchanging views and opinions with relevant ministries and agencies.

▶ 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 2016, we reorganized the 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 Division 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. In fiscal 2018, the division's name was officially changed to the Government & External Relations Group. Under this new name we will continue to contribute to better societies in Japan and around the world through business activities balanced against harmonious relationships with governments and economic organizations worldwide.

▶ 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 the "Super Smart Society" (Society 5.0), advocated by the Japanese government, exploring ways to simultaneously resolve social issues and achieve economic growth. 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," 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 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.

▶ 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 Chairman Nakanishi was appointed chair in June 2018 after having served as vice chair since June 2014 and leading the Committee on South Asia and the Committee on Information and Telecommunication Policy. Other executives and employees also participate in major Keidanren committees such as Industrial Policy, Labor Policy, Innovation Policy, and Regional and Bilateral Relations. As the planning and coordination chair for the subcommittee on Europe, we also conduct activities with Japanese and European governments, while maintaining 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 European Union and the United Kingdom to continue maintaining a 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 IT use and data handling, 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 takes seriously its commitment to sustainable development of the electric machinery industry and contribution to a global society. To that end, we have made a total of 24 recommendations and comments to the Japanese ministries and agencies, including on the Strategic Energy Plan.

Recognizing that economic development in Japan and China will form a foundation for promoting infrastructure system exports, and that fostering business in third countries will be beneficial to those countries as well as Japan and China, Hitachi is working to help establish relationships between JEMA member companies and Chinese businesses. For instance, we have conducted research on Chinese heavy electric power companies regarding their current business expansion initiatives to overseas markets and studied potential Japan–China joint projects.

▶ 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 social 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 non-financial information disclosure and conflict minerals regulation, we maintain ongoing dialogues with the European Union's Directorate-General for Internal Market, Industry, Entrepreneurship, and SMEs 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, in 2016 we worked with affiliated organizations in Japan and Europe to organize and host the EU-Japan CSR Business Dialogue, promoting conversations on business contributions and influence through discussion of CSR and SDGs.

Since 1998, we have held the EU Hitachi Science & Technology Forum to deepen understanding of Hitachi's business. Starting in fiscal 2016, we are focusing on the Social

Innovation Business and, in 2017, we held a forum about urban environments and quality of life for their residents, with speakers from the European Commission, think tanks, and NGOs, exploring how business and technology can contribute to European 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 Ltd., 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 ad*visors 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.

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.

▶ India: Expanding the Reach of Social Contribution Activities
In September 2017, Hitachi India held a CSR Stakeholder Dialogue in New Delhi to gauge the effectiveness of the social contribution activities it conducted in fiscal 2017. The dialogue was attended by 35 people, including representatives from external stakeholders like public authorities and NGOs, and 16 internal stakeholders from Hitachi Group companies, BUs, and the legal and finance corporate functions.

Hitachi India has been working with other Group companies since fiscal 2016 to establish a CSR Task Force Committee and explore corporate social activities the group might undertake based on the Companies Act. At the dialogue, Hitachi presented its CSR policies and activities, and participants discussed potential initiatives targeting digital literacy (e-education) and skills development, sparking a lively exchange of questions, answers, and opinions.

Participants appreciated the efforts made by Hitachi, and some stakeholders expressed interest in partnering with Hitachi.

There were also comments about the need for activities that could serve as a catalyst for corporate contributions to economic and social development and support synergy between business, civic society, and government.

Based on the results of this dialogue, Hitachi India planned its fiscal 2017 social contribution activities in the field of digital literacy and skills development.

▶ Australia: Smart Cities and Infrastructure Development
In March 2018, Hitachi Australia and the Smart Cities Council Australia New Zealand (SCCANZ) cohosted a dialogue on the role of next-generation urban design and public safety technology in helping to build thriving communities and cities. A total of 17 people attended, with representatives from government agencies and NGOs as well as relevant industries like railway and construction.

Discussion ranged across topics including the current condition of Australia's smart city market, business opportunities leading to sustainable growth through the fusion of technology and data, and strategies for making cities more vital and livable. Participants offered opinions on the role of public safety technology in urban planning solutions, referring in some cases to the details of Hitachi's own business strategy for the public safety field.

The dialogue allowed new bonds to be forged between Australian government agencies, NGOs, and other corporations active in smart city development. Since the event, SCCANZ has initiated various follow-up actions including a Smart Cities Conference and a Western Sydney Smart Cities Action Cluster Scoping Workshop to be held in the second half of 2018.

Participation in Initiatives

Main Initiatives 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 continuing growth as a global company, and it also needs to 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.

WE SUPPORT

UN GLOBAL COMPACT

▶ World Business Council for Sustainable Development

The World Business Council for Sustainable Development (WBCSD) is an organization led by CEOs of forward-looking companies in more than 30 countries worldwide. Its aim is to create a sustainable future for business, society, and the environment. Hitachi, Ltd. has participated in the WBCSD since 1995.

wbcsd member

International Standardization Activities

To help create and expand markets as well as to accelerate our global business expansion, we are actively involved in developing international standards and are willing to commit employees to serve as chairpersons or international secretaries or in other key positions of international standards-developing organizations, such as the International Electrotechnical Commission (IEC) and the International Organization for Standardization (ISO).

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.

Hitachi's international standardization work is well regarded. In fiscal 2017, we were honored by such bodies as the IEC, the Ministry of Economy, Trade, and Industry, the Telecommunication Technology Committee, and the Information Processing Society of Japan.

Hitachi is committed to contributing to international standardization via standard-developing organizations like the IEC, ISO, and various consortia to facilitate innovation that resolves social issues, as well as to providing solutions consistent with international standards to support the development of sound global markets.

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

Hitachi Group Standardization Committee

Head: Hitachi, Ltd. executive officer in charge of R&D	Members: Hitachi Group representatives in charge of international standardization (CTOs, etc.)	Priority Theme 1 Working Group
		Priority Theme 2 Working Group
		Priority Theme 3 Working Group

Steering Committee

Hitachi Group Standardization Committee
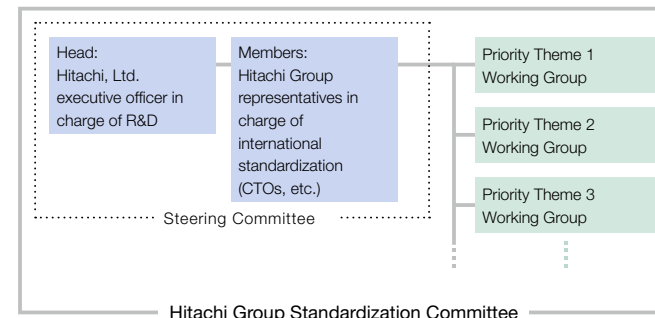
Review and Improvement of CSR Activities

Hitachi's Aims: Improving the Quality of Management Through Integration with CSR

Our society faces a wide range of problems, including global warming, poverty, and social discrimination, and demand is growing for corporations to address these problems.

To meet these expectations, Hitachi is integrating its management and CSR, incorporating CSR into routine business practices throughout the organization and improving the quality of management by implementing the PDCA cycle. By communicating with our stakeholders, we are affirming our relationship of trust with society, and by sharing values with stakeholders, we aim to achieve both the sustainable development of society and our economic growth as a global company. Senior management will play a leadership role in advancing measures to contribute to the resolution of global-scale social issues through our business operations.

Enhancing CSR Management

We have been building our CSR policy on a framework based on ISO 26000 to promote the integration of our management and CSR. In 2017, we reorganized our Group-wide sustainability structure by launching the Executive Sustainability Committee, whose members are Hitachi's senior executives and the CEOs of various business units. The committee is playing a central role in advancing Hitachi's sustainability strategy. In addition, we are actively organizing global CSR meetings and undertaking initiatives at the national and regional levels with the aim of further strengthening our global, Group-wide CSR network. We attach importance to information disclosure, on which communication with stakeholders is based, and are responding to stakeholder needs through the *Hitachi Sustainability Report*, meeting disclosure requirements of the GRI Standards.

Hitachi's CSR Management Framework

To realize the Hitachi Group Vision, which draws on our Corporate Credo and Founding Spirit that form the core of our CSR, and in keeping with a management strategy of actively advancing our Social Innovation Business, we have adopted a framework of nine key themes based on ISO 26000 with the aim of further integrating management and CSR and continually improving our CSR activities by running the PDCA cycle.

CSR Management Framework

Recognize
Properly recognize our social responsibility

1 Recognition of Social Responsibility
2 Corporate Governance
3 Human Rights
4 Labor Practices
5 Environment
6 Fair Operating Practices
7 Customers (Consumer Issues)
8 Community Involvement and Development
9 Review and Improvement of CSR Activities

Review and Improve
Confirm and enhance CSR activities through proactive communication and stakeholder engagement

Identify, Prioritize, and Act
Identify relevant issues, establish priorities for addressing issues, and act on them

Material Issues and Boundaries

In reporting the achievements of its CSR initiatives, Hitachi seeks to identify issues that are of interest to its stakeholders. To ascertain the ever-changing interests of stakeholders in the light of fluctuating economic and social conditions, we have endeavored since fiscal 2014 to give specific examples of our initiatives under a nine-item CSR management framework. We take note of stakeholders' own priorities, analysis conducted by outside consultants, and the opinions of experts in choosing initiatives that correspond to our nine framework items. These are further screened with reference to the GRI Standards and the ESG (environmental, social, and governance) investment indexes, reviewed by the executive officer in charge of CSR, and reflected in *Hitachi Sustainability Report 2017*.

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.

Material Issues and GRI Standards

Themes	Material issues	GRI standards	Internal	External
❶ Recognition of social responsibility	Realizing sustainable, innovative management	GRI 203: Indirect economic impacts	●	●
	Understanding issues through dialogue and taking part in initiatives		●	●
❷ Corporate governance	Pursuing management efficiency and transparency		●	●
	Sharing the Hitachi Group Identity	GRI 205: Anti-corruption GRI 419: Socioeconomic compliance	●	●
	Advancing risk management on multiple fronts		●	●
❸ Human rights	Respect for human rights throughout the value chain	GRI 412: Human rights assessment GRI 408: Child labor GRI 409: Forced or compulsory labor GRI 410: Security practices GRI 411: Rights of indigenous peoples GRI 414: Supplier social assessment	●	●
	Respect for workers' rights	GRI 402: Labor/management relations GRI 406: Non-discrimination GRI 407: Freedom of association and collective bargaining	●	
❹ Labor practices		GRI 401: Employment		
	Achieving a fair and equitable work environment	GRI 402: Labor/management relations GRI 202: Market presence	●	
	Promoting diversity and inclusion	GRI 405: Diversity and equal opportunity	●	
	Promoting occupational health and safety	GRI 403: Occupational health and safety	●	
	A strategy for growing together with our global human capital	GRI 404: Training and education	●	
❺ Environment	Advancing our Environmental Vision and long-term environmental targets	GRI 201: Economic performance GRI 301: Materials GRI 302: Energy GRI 303: Water GRI 304: Biodiversity GRI 305: Emissions GRI 306: Effluents and waste	●	●
	Managing environmental risks and opportunities	GRI 201: Economic performance	●	●
	Continuous enhancement of environmental governance	GRI 301: Materials GRI 302: Energy GRI 303: Water GRI 305: Emissions GRI 306: Effluents and waste GRI 307: Environmental compliance GRI 404: Training and education	●	●
	Promoting the Environmental Action Plan (metrics and targets)	GRI 301: Materials GRI 302: Energy GRI 303: Water GRI 304: Biodiversity GRI 305: Emissions GRI 306: Effluents and waste	●	●
❻ Fair operating practices		GRI 419: Socioeconomic compliance	●	●
	Promoting work practices in line with international ethics codes	GRI 205: Anti-corruption GRI 206: Anti-competitive behavior GRI 415: Public policy	●	●
	Engaging in responsible procurement	GRI 204: Procurement practices GRI 414: Supplier social assessment GRI 308: Supplier environmental assessment	●	●
❼ Customers (consumer issues)	Pursuing customer satisfaction	GRI 417: Marketing and labeling	●	●
	Ensuring accessibility to products and services	GRI 417: Marketing and labeling	●	●
	Ensuring thorough management of quality and safety	GRI 416: Customer health and safety GRI 418: Customer privacy GRI 419: Socioeconomic compliance	●	●
❽ Community involvement and development	Promoting sustainable community involvement and development	GRI 413: Local communities	●	●
❾ Review and improvement of CSR activities	Enhancing CSR management		●	

Comparative Tables with GRI Standards Content Index

Incorporating Dialogue into CSR Management

Communication in Response to Stakeholder Expectations

Hitachi incorporates feedback obtained through dialogue with stakeholders in its sustainable practices to improve CSR management.

In February 2017, we held a stakeholder dialogue in Belgium with the aim of improving our integrated reports by taking stakeholder views and opinions into consideration. In Europe, investors have more interest in non-financial information and many corporations have been publishing integrated reports for some time.

The meeting was attended by 17 representatives from such organizations and bodies as the International Integrated Reporting Council (IIRC), the World Intellectual Capital Initiative (WICI), and the Directorate-General for Financial Stability, Financial Services, and Capital Markets Union (DG FISMA), as well as corporations with experience issuing integrated reports and major European investment companies.

We received feedback from attendees such as "Identifying crucial issues makes it possible to indicate what value the business can provide in the long term," and "Recognizing the risks that could impede the entire Group's business operations and identifying countermeasures against them, including processes, demonstrates a corporate commitment to improving risk management and helps enhance stakeholder trust in the company."

Based on this feedback, in fiscal 2017 we reviewed business risks and opportunities related to each of the 17 SDGs and identified 11 goals that we regard as key social issues for us to address in light of ISO 26000, the UN Global Compact, and other environmental frameworks. In order to achieve these goals, we built the Hitachi Value Creation Model for delivering value created through our Social Innovation Business. Moreover, in accordance with the recommendations of the Task Force on Climate-related Financial Disclosures, we are improving disclosure of our long-term initiatives to address business opportunities and risks posed by climate change. These initiatives are detailed for our stakeholders in the *Hitachi Integrated Report 2018*.

Moving forward, Hitachi will strive to actively engage in dialogue with stakeholders to enhance our efforts toward sustainability and information disclosure.

Participants in the February 2017 stakeholder dialogue held in Belgium.

Activities 38

Corporate Governance

Hitachi's Aims: Developing Efficient and Transparent Corporate Governance

"Sustainability management" is expected to play an array of roles in realizing a sustainable society, a key component of the Sustainable Development Goals (SDGs)—the centerpiece of the 2030 Agenda for Sustainable Development, adopted by the United Nations in 2015. We believe that meeting society's expectations requires a corporate culture that unfailingly contributes to the resolution of social issues through the creation of products and services and that ensures ethical and fair business activities.

We are cultivating a self-directed corporate culture where sustainability perspectives are reflected in management decision making and a common identity is shared throughout the Hitachi Group. In addition to pursuing greater management efficiency and transparency, we have identified the main themes of this effort as sharing our Codes of Conduct and values throughout the Group and promoting multifaceted risk management. In these ways we are accelerating the development of corporate governance that incorporates sustainability into our decision making and operations across our business activities.

Hitachi and Society

Our Impact on Society

No. of employees (consolidated)

307,275

Our Performance

Translation of the Hitachi Group Codes of Conduct

21 languages

Pursuing Management Efficiency and Transparency

Hitachi's Approach

We not only strive to ensure the legality, soundness, and transparency of our business but also endeavor to respond rapidly to constantly changing economic and social conditions and efficiently conduct operations. At the same time we are bolstering management oversight and monitoring capabilities and clearly defining managerial responsibilities with a view to sustainably enhancing our corporate value by forging ever-stronger corporate governance.

Worldwide social and environmental megatrends, such as population growth and climate change, have reached a point in recent years where they are having a bigger impact on corporate management decisions. As a global company that contributes to society through our Social Innovation Business, we are working to ensure that environmental and social issues are at the heart of decision-making at the highest levels of corporate governance.

We give great importance to management efficiency and transparency and appropriate organizational control and are firmly maintaining and reinforcing a management structure enabling us to strengthen our efforts to fulfill our social responsibilities on multiple fronts, such as through proper information disclosure and tripartite audits.

Corporate Governance

Driving Hitachi's Governance

Hitachi, Ltd. has adopted the committee system, which has nominating, audit, and compensation committees.[1] We aim to establish a framework for quick business operations and to realize highly transparent management by separating the responsibilities for management oversight from the execution of business operations. The majority of our Board of Directors are independent outside directors, including non-Japanese. Our goals are to reflect diverse and global viewpoints as well as to reinforce management supervisory functions. We have 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 independent outside directors, and the criteria for assessing the independence of these directors.

[1] A corporate governance system under the Companies Act of Japan, where a board of directors makes basic policy decisions and oversees the execution of business by executive officers, while the executive officers, appointed by the board of directors, execute the company's business affairs via a set of statutory committees.

🖱 Corporate Governance Guidelines

▶ Governance Structure of Hitachi, Ltd.

The Board of Directors comprises a majority of independent outside directors and includes four non-Japanese directors, two of whom are women. This represents an effort to reflect global, diverse viewpoints in company management, as well as to reinforce management supervisory functions.

General Meeting of Shareholders

Elect

Board of Directors (12 members, including 8 from outside)

Nominating Committee (4 members, including 3 from outside)	Audit Committee (6 members, including 4 from outside)	Compensation Committee (4 members, including 3 from outside)

Appoint   Supervise

Executive Officers: Quick execution of company business
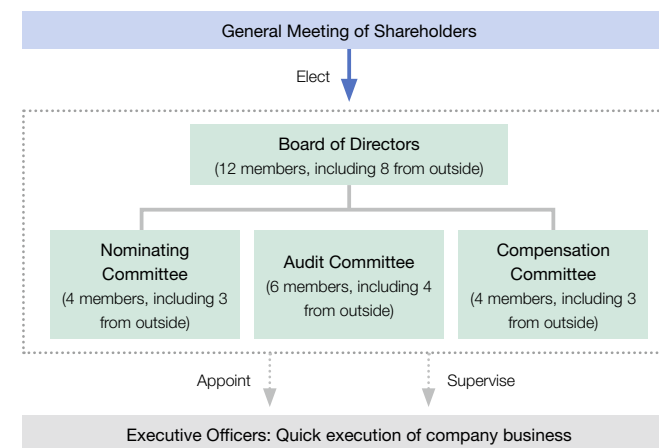
Strengthening Structures to Expand Our Social Innovation Business

Hitachi is continuing efforts to strengthen its business structures in order to accelerate collaborative creation with customers and develop value-creating innovations through services and products. In April 2016, we transitioned to a market-driven business structure with three levels—namely, "Front," "Platform," and "Products." Starting in April 2018, this structure has been reinforced to promote global development of digital solutions.

▶ Strengthening Frontline Functions of Focus Business Domains

Our frontline function businesses include 10 Front business units (BUs) and other functions with strengthened capabilities in sales, engineering, and consulting. These functions target our four focus business domains of "power and energy"; "industry, distribution, and water"; "urban"; and "finance, social, and healthcare." Each will provide innovation as a service to customers in their region, and we will create synergies in each focus domain in order to globally develop our digital-driven Social Innovation Business.

Our Services and Platforms Business Unit offers a shared platform aggregating and integrating technologies essential for advanced services, including artificial intelligence, analytics, and control technologies.

Our product-focused businesses include the companies within the Hitachi Group that handle product businesses and our Industrial Products Business Unit. These provide customers and Front BUs with innovative, globally competitive products, parts, and materials, all while pursuing synergies as a Group.

Because BUs are under the direct control of the president, each unit's CEO has investment authority and responsibility for profit and earnings. They work in partnership with other BUs, comprehensively and organically leveraging the resources of the entire Hitachi Group and creating innovations quickly and flexibly in order to provide optimum products and services to customers.

Our business model aims to sustainably create value. Through our Social Innovation Business, we contribute to improving people's quality of life by addressing on an ongoing basis the issues society and our customers face.

▶ Strengthening Structures to Promote Digital Solutions

Digital solutions are a growth driver for the Social Innovation Business. To accelerate them globally, since April 2018 the executive vice president and head of the Systems & Services Business has held an additional role as head of the Social Innovation Business to supervise strategic planning for digital solutions as well as customer approach and new strategic projects. By placing the Social Innovation Business Division and Hitachi Digital Global Holdings under unified control and enhancing cooperation among the two as well as other business units, Hitachi aims to promote the use of digital technologies in the Social Innovation Business. Hitachi Global Digital Holdings has brought together under its umbrella Hitachi Vantara, which develops and provides IoT platforms and data analytics services, and the Hitachi Consulting Corporation, which is headquartered in the Unites States and provides consulting services.

Fiscal 2018 New Business Structure

President and CEO

| Executive Vice President | Executive Vice President | Executive Vice President | Executive Vice President |

Front:
- Nuclear Energy Business Unit
- Power Business Unit
- Industry & Distribution Business Unit
- Water Business Unit
- Building Systems Business Unit
- Railway Systems Business Unit
- Smart Life & Ecofriendly Systems
- Automotive Systems
- Financial Institutions Business Unit
- Social Infrastructure Systems Business Unit
- Healthcare Business Unit
- Defense Systems Business Unit

Platform: Services & Platforms Business Unit

Products: Industrial Products Business Unit

■ Power and energy ■ Industry, distribution, and water ■ Urban ■ Finance, social, and healthcare

🖱 Hitachi to Make a Transition to a Market-Specific Business Structure with Strengthened Frontline Functions

🖱 Hitachi to Strengthen Business Structures for Global Expansion of the Social Innovation Business

Internal Control over Financial Reporting

To ensure the reliability of consolidated financial reporting, the Group develops and uses control documents ranging from company-level to business process controls based on the guidelines determined by our J-SOX Committee. Business units within Hitachi, Ltd. and major Group companies have developed mechanisms to objectively perform assessments. The J-SOX Committee office collects the results of the assessments performed by each business unit and company, and assesses the effectiveness of internal control across the entire Group.

Toward a More Integrated "Tripartite Audit" Function

We are working to further enhance the effectiveness of the internal control exerted through the integrated work of a "tripartite audit" function comprising the Audit Committee; our internal audit sections, principally, the Internal Audit Office; and external auditing firm. Through close communication, the three functions share information about risks and evaluation of risk responses; ensure the audit process is transparent with appropriate checks and balances; and improve the effectiveness of internal control systems.

Hitachi Group Internal Control Assessment Framework

Improving Internal Control through a "Tripartite Audit" Function
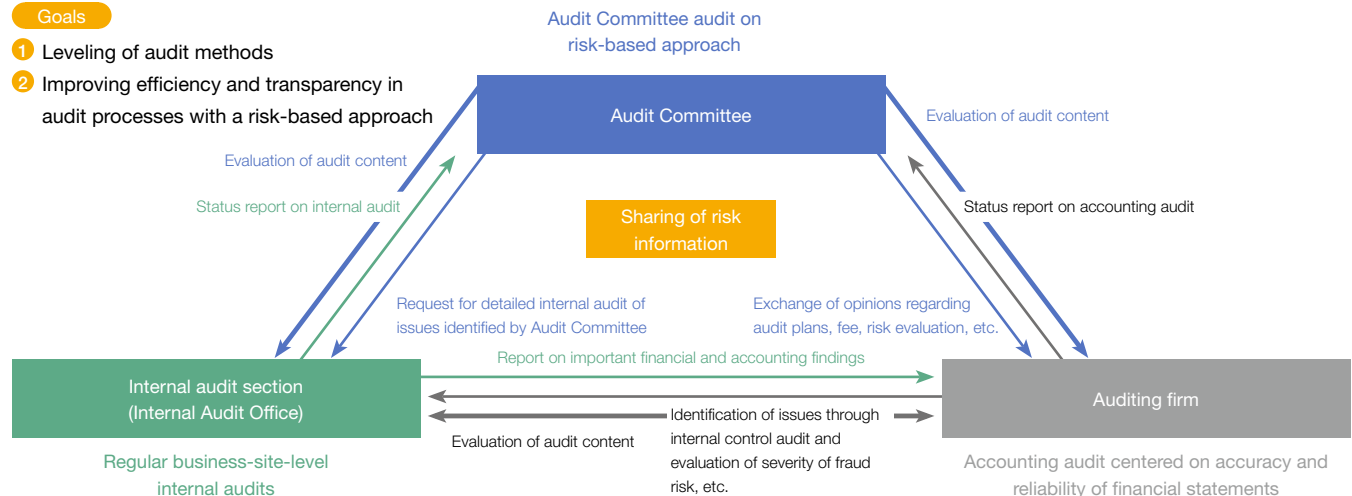
Director and Executive Officer Compensation

The Compensation Committee, of whose members more than half are independent outside directors, sets forth the policy on the determination of compensation details for directors and executive officers and, based on this policy, the amount of compensation, etc., of each director and executive officer, pursuant to applicable provisions of the Companies Act.

Since fiscal 2008, the compensation structures for directors and executive officers has been revised to eliminate severance payments.

▶ Basic Policy
- Compensation shall be sufficiently attractive to retain the personnel required to realize improvements in enterprise value through global business growth.
- Compensation shall be commensurate with the roles and responsibilities of directors and executive officers.
- Compensation for directors shall contribute to effective supervision of management.
- Compensation for executive officers shall provide incentives to contribute to sustained improvement in enterprise value through business execution, while striking an appropriate balance between short-term results and performance over the longer term.
- Compensation levels shall take into account remuneration at other companies, along with economic conditions and market trends.
- In considering the terms and amounts of compensation, the Compensation Committee shall seek objective advice as necessary from outside experts.

▶ Compensation Structure

(1) Directors
Compensation for directors consists of basic remuneration and a year-end allowance.

① Basic remuneration
Basic remuneration is decided by adjusting a basic amount to reflect full- or part-time status, committee membership and position, travel from place of residence, etc.

(2) Executive officers
Compensation for executive officers consists of basic remuneration, performance-linked compensation, and medium- and long-term incentive compensation. The higher position the executive officer holds, the higher the proportion of variable pay is as a portion of total annual compensation.
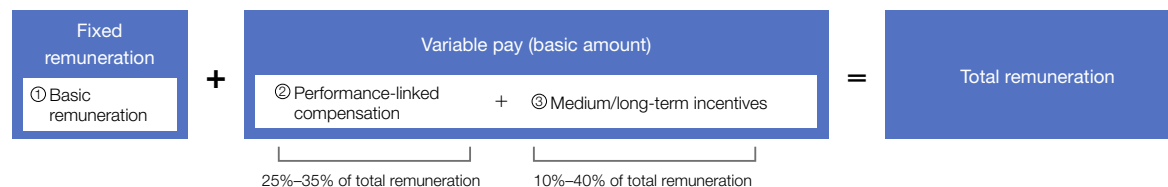
Fixed remuneration		Variable pay (basic amount)		Total remuneration
① Basic remuneration	+	② Performance-linked compensation + ③ Medium/long-term incentives	=	Total remuneration
		25%–35% of total remuneration	10%–40% of total remuneration	

① Basic remuneration
Basic remuneration is decided by adjusting a basic amount to reflect the results of an assessment. The basic amount is set in accordance with the relevant position.

② Year-end allowance
Year-end allowance is a predetermined amount equivalent to about 20% of the director's annual basic remuneration, but may be reduced depending on financial results.

A director concurrently serving as an executive officer does not receive any compensation as a director.

② Performance-linked compensation
The performance-linked compensation is decided within the range of 0%–200% of the basic amount based on financial results and individual performance. The basic amount is set within the range of about 25%–35% of the total annual compensation of each executive officer in accordance with the relevant position.

Position-related (basic amount) × [Assessment ×0%–200% | Performance assessment | Individual performance] = Performance-linked compensation (payments)
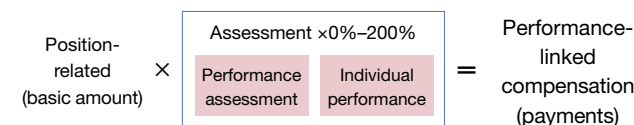
③ Medium- and long-term incentive compensation

Medium- and long-term incentive compensation is stock options as stock-based compensation, with share price conditions (stock acquisition rights with the strike price of ¥1). The number of stock acquisition rights to be granted is determined within the range of about 10%–40% of the total annual compensation of each executive officer in accordance with the relevant position. The number of stock acquisition rights that may be exercised will be determined within the range of 0%–100% of the stock acquisition rights granted in accordance with the conditions. The proportion of the assessment (0%–100%) is determined by comparing the total shareholder return[1] for Hitachi stock against the rate of growth in the TOPIX benchmark. This is set to 0% if the TSR is less than 80% of the TOPIX growth rate, and reaches 100% once the TSR rises to at least 120% of the TOPIX growth rate, with intermediate results for figures in the 80%–120% range.

Directors or executive officers whose compensation from the company and its subsidiaries is not less than ¥100 million and the amount of their compensation are as listed at the following link:

Annual Securities Report (The 149th Business Term) (pp. 75–77)

| Position-related stock options granted (basic amount) | × | Assessment 0%–100% Relative to TOPIX growth rate | = | Exercisable stock options (fully vested)[2] |

*1 Total Shareholder Return (TSR) includes capital gains (due to share price movements) and income (dividends).
*2 Stock options can no longer be exercised if fraud or other serious misconduct occurs during the term of office. Under a claw-back arrangement, the company can demand repayment of economic gains made from any options that have already been exercised if fraud or other serious misconduct is discovered during the term of office.

Sharing the Hitachi Group Identity

Hitachi's Approach

We carry out our business not only in full compliance with legal requirements but also in ways that ensure socially responsible conduct. Spreading understanding of this among all Hitachi employees is a fundamental management issue. As economic activity becomes increasingly borderless, there is a growing need for steps to eradicate bribery, corruption, and other illegal behavior in accordance with conditions in the countries and regions where we have operations. As a global company, we are implementing a consistent compliance structure across the entire Hitachi Group.

In pursuing sustainable management, we give equal importance to value creation that contributes to the resolution of social issues. This is being advanced through the dissemination and sharing among all employees of the Hitachi Group Identity—an integrated set of principles including our management vision and values—and the Hitachi Codes of Conduct, which spell out decision-making procedures and actions for all Hitachi Group executives and employees.

As our operations expand across the globe, our supply chain, too, is globalizing at an accelerating pace. This demands that we fulfill our social responsibilities not only as a Group but also in working with business partners. We thus conduct compliance risk surveys in every region, in addition to implementing export-import controls and inspecting the content of transactions so as to ensure normative conduct—free of complicity in any illegal behavior—throughout the supply chain.

Sharing Codes of Conduct and Compliance Approaches Throughout the Group

Ensuring Awareness of the Hitachi Group Codes of Conduct

Hitachi, Ltd. is a pioneer in developing business ethics. The company 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. The Hitachi Group Codes of Conduct are available in 21 languages and shared among Hitachi Group employees in the world. We also issued the *Hitachi Group Codes of Conduct Handbook* as a guidebook for all our employees to fully understand the Hitachi Group Codes of Conduct. In Japan alone, more than 260,000 copies were distributed. In addition, an e-learning tool has been made available in Japanese and nine other languages, such as English and Chinese, showing appropriate behavior and presenting specific examples for use.

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

Enhancing Our Compliance Framework

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 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 and other experts.

The internal audit section regularly conducts Group-wide reviews to verify that each area of compliance is being appropriately operated. In cases where the reviews identify

necessary improvements, corrective measures are swiftly implemented. We also convene the Advisory Committee, consisting of outside experts, to gain new insights into compliance and apply them proactively in our own efforts.

Compliance Reporting System

Hitachi has instituted a Group-wide whistleblowing system to prevent illegal and unethical behavior, to promptly address infractions, and to enhance our ability to self-regulate.

In this system, reports go directly to the Compliance Department at Hitachi or to an outside attorney. 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. Fiscal 2017 saw 360 reports throughout the Group, including some related to suspected violations of competition and anti-bribery laws.

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 addition, we have implemented the Channel to the Board of Directors system to allow employees to directly report problems anonymously 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.

Prevention of Antisocial Transactions

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 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 and the police).

Thorough Export Controls

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." We established the 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 on the formulation of regulations as well as on 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.

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 annual 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.

📄 Measures to Prevent Bribery and Corrupt Practices

📄 Preventing Violations of Fair Competition Laws

Sharing Values Throughout the Group

Solidifying the Hitachi Group Identity

▶ Instilling the Group Identity in Employees

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 Awards 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 Awards. In fiscal 2017, the awards saw 232 applications from various regions, including China, Europe/Africa, India, North America, Southeast Asia, and Japan. Outstanding activities from each region were highlighted on the intranet, and the president presented the awards 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, a straightforward explanation of the Hitachi Group Identity and Hitachi brand, and the Hitachi Vision Movie, a visual depiction of the Hitachi Group Vision. By raising employee awareness of the Hitachi Group Identity through these activities, we continue to strive to become a company that "delivers innovations that answer society's challenges."

Hitachi Group Identity

Advancing Risk Management on Multiple Fronts

Hitachi's Approach

Changes to our operating environment from such factors as the globalization of the economy and advances in and spread of information and communications technology (ICT) lead not only to the expansion of business opportunities but also to the diversification of risks to our operations.

We have built a diverse risk management system under which we carry out risk analysis to accurately gauge ongoing economic and social changes and use the insights gained to take preventive measures and ensure a rapid response to issues that may arise unexpectedly.

Particularly in recent years, as a company deeply involved in infrastructure projects in countries and regions around the world, we take note of the discussions at meetings like the World Economic Forum on such international risks as the unending series of terrorist attacks, the increasing severity of abnormal weather conditions, global-scale climate change, and the growing scale and sophistication of cyberattacks.

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. We will continue to reinforce our risk management on a Group-wide basis and make thoroughgoing efforts to minimize risks to society from our operations.

Risk Management

Reinforcement of Risk Management System

The entire Hitachi Group is reinforcing its risk management system to address increasingly globalized and complex risks.

Under the head of risk management at Hitachi, Ltd., each business operation assigns an executive as its risk management officer to manage risks mainly concerned with compliance, export control, disasters, and crime, and to respond adequately in coordination among the entire Group. Furthermore, Hitachi is building a comprehensive risk management system that contains standards and procedures to objectively evaluate different risks that may affect business.

Stable Provision of Products and Services

Creating BCPs in Key Operations Worldwide

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.

When the Great East Japan Earthquake struck in March 2011, our BCPs enabled quick responses and swift decision making. 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* for individual departments 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 earthquake 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 office general manager simulating a large earthquake in the Tokyo area, striving to promote understanding of each department's role and strengthen cooperation among departments. As part of countermeasures against large earthquakes striking the Tokyo metropolitan area, 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.

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 (for individual departments).

Earthquake simulation drill.

Creation of Procurement BCPs

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. 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 2017, all major Group business sites with production lines (approximately 208 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

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 2017, with the threat of terrorism expanding around the world and infectious diseases spreading regionally, we introduced 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 prepa-ratory training exercises.

Promoting Information Security

Implementing Rigorous Information Security

Hitachi's chief information security officer (CISO) is appointed by the company's president and has the authority and responsibility to implement and operate an Information Security Management System (ISMS). In fiscal 2017, the role of CISO was performed by Hitachi's executive vice president and executive officer. The Information Security Committee, chaired by the CISO, 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.

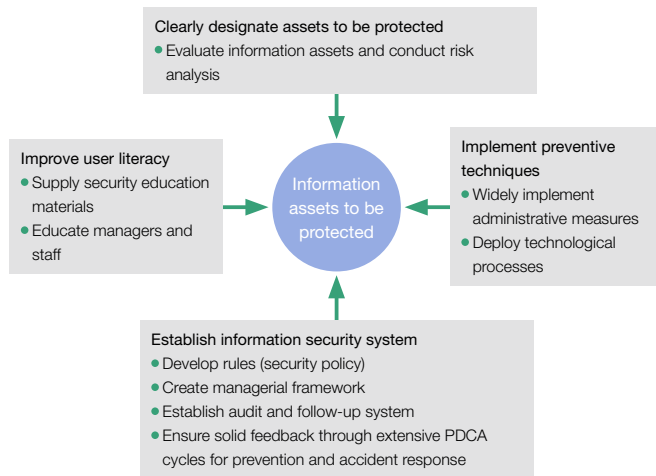(2) Promoting stronger ethical and security awareness among data users
We have prepared a program tailored to Hitachi's various personnel levels and are working to raise the prevailing sense of ethics and security awareness through Group-wide e-learning. We are also conducting audits to identify and 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 2017*.

Information Security Report 2017

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

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 the increasing trend toward 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.

Preventing Information Leaks

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 ensure that if an incident does occur, damage is promptly minimized by contacting customers, reporting to government agencies, investigating causes, and acting to prevent any recurrence.

We take the following IT steps to prevent information leaks: using encryption software and secure PCs; 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, including both entry and exit countermeasures.

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.

Three Principles for Preventing Leakage of Confidential Information

Principle 1
As a general principle nobody can take Confidential Information out of the Company's premises.

Principle 2
Any person taking Confidential Information out of the Company's premises due to business necessity shall obtain prior approval from the Information Assets Manager.

Principle 3
Any person taking Confidential Information out of the Company's premises due to business necessity shall put in place relevant and appropriate measures against information leakage.

Global 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 standards. These rules are distributed from the parent company in Japan to Group companies around the world. Other security measures include secure shared services and support from our regional headquarters in the Americas, Europe, Southeast Asia, China, and India.

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 221 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 business unit workplaces. We conduct monthly Confirmation of Personal Information Protection and Information Security Management assessments at 693 operations (as of March 2018) that handle important personal information. This regular control mechanism ensures ample safety management and implementation.

Human Rights

Hitachi's Aims: Thoroughgoing Respect for Human Rights Across the Value Chain

As our value chain expands on a global scale, we find diverse working environments, business norms, and trade practices in countries and regions around the world, and this has highlighted the need to ensure respect for human rights in our operations. Society's awareness of human rights issues is also rising, and companies are expected to address human rights issues in accordance with such international standards as the UN Guiding Principles on Business and Human Rights. Companies are now being asked not only to respect human rights in their own activities but also to avoid becoming complicit in the human rights infringements of their suppliers and customers.

In carrying out our business, Hitachi recognizes human rights as a key management issue. On the basis of this awareness, we will respect the human rights of all stakeholders, including our own employees and across the supply chain, in every country and region where we operate. We are also engaged in raising awareness of human rights and promoting the use of grievance mechanisms to address employee concerns throughout the Hitachi Group. At the same time, we are strengthening human rights due diligence and expanding the scope of other human-rights-related activities.

Key SDGs

4 QUALITY EDUCATION | 5 GENDER EQUALITY | 8 DECENT WORK AND ECONOMIC GROWTH | 12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Hitachi and Society

Our Impact on Society

No. of employees (consolidated)

307,275

Our Performance

Distributed CEO's human rights message to

Approx. 178,000 people

Respect for Human Rights Throughout the Value Chain

Hitachi's Approach

The Hitachi Group Human Rights Policy has been formulated to create a value chain where the human rights of all stakeholders are respected. Under the leadership of top management, educational activities targeting all executives and employees are carried out on an ongoing basis to help foster an organization in which human rights infringements do not occur.

Under this policy, we are also building a framework to accurately assess and mitigate human rights risks in the workplace environments of Hitachi's suppliers and other stakeholders.

Respect for Human Rights

Human Rights Initiatives

In May 2013, we adopted the Hitachi Group Human Rights Policy to supplement the Hitachi Group Codes of Conduct, drawn up in fiscal 2010. In this policy, we clarify our understanding of human rights as being, at a minimum, those outlined in the International Bill of Human Rights 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[1] in line with the UN Guiding Principles on Business and Human Rights,[2] 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 areas such as procurement in fiscal 2015 and human resources in fiscal 2016, assessing, prioritizing, and considering measures to reduce the human rights risks that Group employees and people in the supply chain are likely to confront. We will continue to incorporate the results of human rights due diligence into the specific measures we take regarding CSR procurement and human resources.

*1 Human rights due diligence: An ongoing process to identify and assess potential and actual human rights impacts, integrate findings, and take appropriate action to prevent or mitigate potential impacts or to provide for or cooperate in the remediation of actual impacts. The processes also cover tracking the effectiveness of actions to address impacts and communicating externally.
*2 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

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 capital, 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. Information from these deliberations is shared with all employees through 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.

In a practice launched in fiscal 2014, we distribute a human rights message by Representative Executive Officer, President, and CEO Toshiaki Higashihara every year on December 10,

Human Rights Day. In fiscal 2017, approximately 178,000 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 capital, 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

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 2017, the participation rate came to 60.6% at Hitachi, Ltd. and 48.0% among Group companies. We launched an e-learning program on business and human rights in October 2016, in which approximately 186,000 Group executives and employees in Japan and elsewhere had participated by March 2018. 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.

In July 2017, 31 executive officers from Hitachi, Ltd. participated in an officer training session on the theme of global business and human rights led by Hiroji Tanaka, a lead researcher of the Business Ethic Research Center. Touching on several cases, Tanaka discussed the corporate responsibility for human rights that must be taken into consideration at the management level as Hitachi's business becomes increasingly globalized.

A scene from the officer training session.

Human Rights Due Diligence Initiatives

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. Going forward, Hitachi will further promote human resources initiatives by its business units and Group companies.

Human Rights Due Diligence in Procurement

Addressing the Risks of Child and Forced Labor

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 non-governmental organizations and businesses implementing advanced countermeasures were invited to lead the webinars.

In fiscal 2017, we visited one of our suppliers in Malaysia with members of 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.

*1 Webinar: A portmanteau word combining "web" and "seminar," used to refer to an interactive seminar held online.

Supply Chain Management

Respect for Workers' Rights

Hitachi's Approach

Our employees are tasked with maintaining respect for human rights within the value chain, but at the same time, in their role as employed persons, they are also stakeholders whose human rights must be respected.

Hitachi's longstanding approach has been to give importance to building a mutually beneficial relationship with its employees as partners in a common effort. Given the globalization of our business, there is a growing need to respect workers' rights not only by complying with international ethics codes but also by taking into account the practices and cultures of each country.

Moving forward, we will continually strengthen our system of mutual cooperation to build an equitable worker-employer relationship and improve worker health and safety levels based on respect for workers' fundamental rights.

Freedom of Association and Collective Bargaining

Respecting the Rights of Employees

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 had 27,021 members as of October 31, 2017.

Notification of Work-related Transfers and Reassignments

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

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.

Labor Practices

Hitachi's Aims: A Global Work Environment Rewarding Individuality and Diversity

Employees are valued partners who play a vital role in sustaining our business. The cornerstone of a sound and mutually beneficial relationship between employees and the company, and the motive force for sustainable growth, is to provide proper working conditions for employees and build a framework for the maximization of their potential. By complying with all work-related laws and regulations and creating a work environment that maintains and develops fair employment relations and makes full use of the abilities of its diverse human capital, Hitachi aims to be a company in which all employees can engage in safe and fulfilling work.

Hitachi strives to remain in dialogue with each individual employee about their basic rights and career development.

Systems are in place for employees to discuss matters with human resources at the level of the business site, and a variety of other contact points, such as a health and safety committee and labor unions, are available to employees as well. When necessary, we encourage employees to use the Compliance Reporting System, which is designed to ensure a careful and thorough response to all issues raised.

Key SDGs

4 QUALITY EDUCATION

5 GENDER EQUALITY

8 DECENT WORK AND ECONOMIC GROWTH

Hitachi and Society

Our Impact on Society

Ratio of male to female employees

83% to **17**%

Our Performance

No. and % of female managers (Group) ⊘

3,459 (6.4%**)**

Achieving a Fair and Equitable Work Environment

Decent Work

Hitachi's Thinking on Decent Work

Human resources are key to Hitachi's ability to adapt to rapid social and environmental change and continue providing new value to customers. Diversity and inclusion are crucial to our strategy, and throughout the Hitachi Group we promote HR management practices that maximize the strength we can draw from a diverse, highly engaged workforce transcending national and corporate boundaries. Our globally shared leadership development program fosters leaders who champion our Social Innovation Business around the world, while a range of other training programs help employees obtain the knowledge and skills they need to provide innovative solutions to our customers.

Hitachi also views it as crucial to create a work environment in which each employee can engage meaningfully in productive work. As part of our efforts in this area, we have unified performance review standards worldwide in a highly transparent and fair system for evaluating each employee's achievements. We have also enacted safety policies that apply across the entire Hitachi Group and continue striving globally to create workplaces that offer safety and peace of mind to those who work there. Other initiatives aim to make it easier to achieve work-life balance, reduce work hours, and promote healthy lifestyles among employees. Additionally, we conduct an annual survey of employee engagement levels across the Group, using the results as the basis for further improvement in management practices.

Ensuring Fair Evaluation and Compensation

With the globalization of business, business frameworks with a global outlook have become increasingly important. Hitachi is working to establish management systems based on consistent principles across all areas, including compensation, so that our diverse human capital around the world can engage at a high level.

We are developing Group-wide compensation systems that are fair and competitive in the context of each country or region's labor market. Individual performance is also assessed against evaluation criteria that are disclosed to all employees. 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 in which we operate when determining compensation. In Japan, starting pay for new graduates—representing about half of all new graduates recruited each year across the Group's global operations—was roughly 20% higher than the weighted average of Japan's regional minimum wages.

Advancing Global Human Capital

Recruiting Human Capital in Europe

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.

Promoting Diversity and Inclusion

Hitachi's Approach

Hitachi believes that building a corporate culture that fully draws on the diversity of human capital, in terms of gender, age, and values, not only offers employees an opportunity to approach their work with enthusiasm but also contributes to enhancing competitiveness through the provision of solutions that incorporate diverse perspectives. In recent years, with the growing interest among stakeholders for personnel policies enabling flexible workstyles, we are taking a proactive stance toward implementing this approach.

Hitachi has recognized the importance of diversity since the 1990s and has built its management systems accordingly, listening closely to employee feedback. As our Statement on Diversity and Inclusion explains, we view diversity as our growth engine. We pay particular attention to career development for women by actively encouraging the promotion of female and non-Japanese employees in accordance with trends both within Japan and worldwide and by establishing key performance indicators to track our success. Our other efforts to promote diversity include work-life management policies that enable employees at any life stage to find fulfillment in their work and initiatives to encourage the hiring of people with disabilities in line with the work style reform promoted by the Japanese government. With the

strong commitment of top management, we aim to make a significant contribution through the efforts of our diverse human capital to the building of a more sustainable society for all.

Diversity and Inclusion

Statement on Diversity and Inclusion

Diversity is the wellspring of our innovation and our growth engine. Hitachi regards personal differences—gender, nationality, work history, age, sexual orientation, and philosophy—as

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

2000
FF Plan*1

2006
Diversity Promotion Project
FF Plan II

2009
Diversity & Inclusion Development Center set up

2012
"Diversity for the Next 100" launched

Support balance between work and nursing care, etc.

Enhance Hitachi Group partnerships

Strengthen senior management commitment

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　2017

*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.

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 strong teamwork and broad experience in the global market, we will meet our customers' needs.

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

Diversity Management Initiative: "Diversity for the Next 100"

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.

Development Structure of Diversity Management

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

Hitachi Group Diversity Structure

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                          Hitachi, Ltd. President
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Advisors:
Independent outside 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

Hitachi Group Diversity Development Council
Section chiefs 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

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

Note: Participating companies (17 companies as of March 2018): Hitachi Metals, Hitachi Chemical, Hitachi Capital, Hitachi Construction Machinery, Hitachi Kokusai Electric, Hitachi High-Technologies, Hitachi Transport System, Clarion, Hitachi Urban Investment, Hitachi Appliances, Hitachi Automotive Systems, Hitachi Consumer Marketing, Hitachi Industrial Equipment Systems, Hitachi Systems, Hitachi Solutions, Hitachi Insurance Services, and Hitachi Life.

Developing Women's Careers

KPI of Developing Women's Careers

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 unit and to set numerical targets for each unit, 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** ✓

(people)   (people)
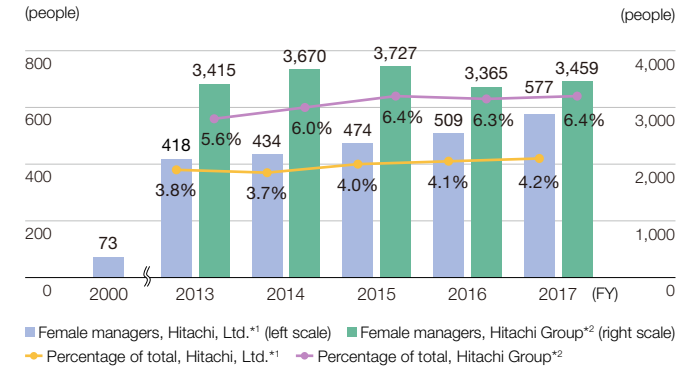
■ Female managers, Hitachi, Ltd.*1 (left scale) ■ Female managers, Hitachi Group*2 (right scale)
— Percentage of total, Hitachi, Ltd.*1 — Percentage of total, Hitachi Group*2
Note: Figures include section chiefs and above.
*1 "Female managers" in fiscal 2017 include managerial employees dispatched from Hitachi, Ltd. to non-Group companies and those accepted from non-Group companies by Hitachi, Ltd. Earlier figures include regular managerial employees dispatched to non-Group companies but exclude those accepted from non-Group companies.
*2 All full-time, regular female managers excluding those dispatched to non-Group companies. Figures for fiscal 2016 were restated following a reexamination of HR data.

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

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

Global Women's Summit

In September 2017, we hosted our second Global Women's Summit with a theme "United to Succeed." Held in the United States, the event was attended by more than 120 female employees from Group companies around the world and featured a keynote speech by an external speaker, a message from President and CEO Toshiaki Higashihara, and a report on the diversity and inclusion initiatives discussed at the first summit held in the United Kingdom, followed by workshops on nine topics ranging from technology to social skills to coaching. Participants learned about improving self-motivation and skill development, and at a subsequent networking reception, they shared stories about their careers and the issues they faced at their workplace, deepening exchanges with each other. The next summit is scheduled to be held in fiscal 2018.

Work-Life Management

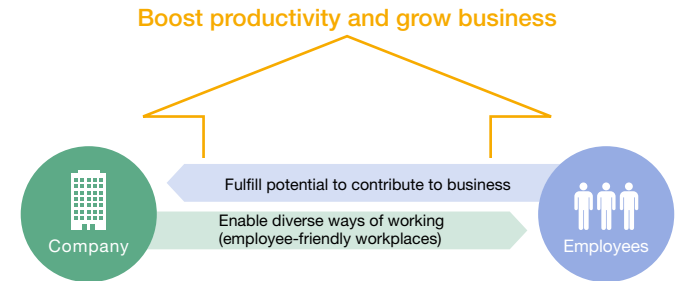### Hitachi's Work-Life Management Approach

Diversity and inclusion boost productivity and grow Hitachi's business. To ensure that all employees reach their full potential, enhancing our organizational capabilities and creating new synergies, we strive to maintain a work environment that embraces human resource diversity, encourages inclusion, and promotes workstyle flexibility.

Hitachi looks beyond work-life balance, promoting work-life management that enables our employees to take charge of improving the quality of both their work and their private lives. We believe that optimizing time spent in and outside the
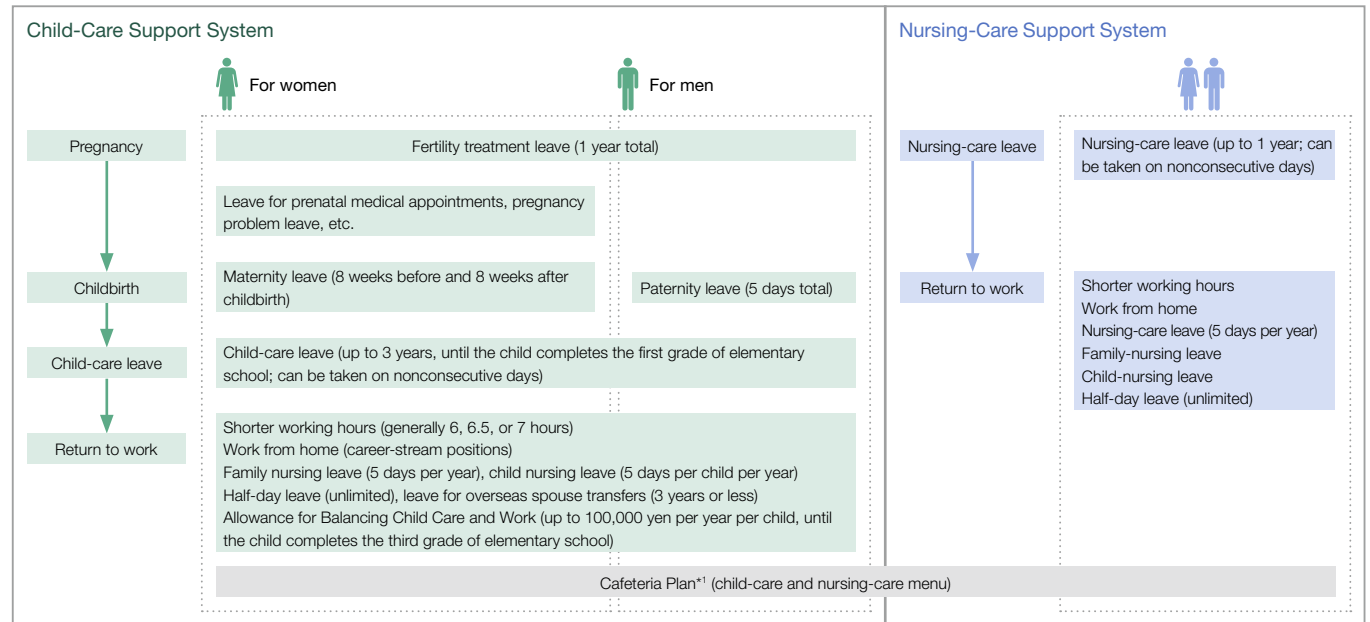
workplace through work-life management enhances our employees' professionalism and builds character, resulting in both individual and organizational growth over the long term.

In 2016, we launched "Hitachi Work Life Innovation," a company-wide initiative to accelerate our efforts toward improving work-life balance in line with the "work style reform" promoted by the Japanese government. In cooperation with its labor union, we aim to build a working environment where diverse people with different views and perspectives can approach their work with enthusiasm and achieve great things.

Boost productivity and grow business

Company
- Fulfill potential to contribute to business
- Enable diverse ways of working (employee-friendly workplaces)

Employees

Work-Life Management Support System at Hitachi, Ltd.

Child-Care Support System	For women	For men	Nursing-Care Support System	
Pregnancy	Fertility treatment leave (1 year total)		Nursing-care leave	Nursing-care leave (up to 1 year; can be taken on nonconsecutive days)
	Leave for prenatal medical appointments, pregnancy problem leave, etc.			
Childbirth	Maternity leave (8 weeks before and 8 weeks after childbirth)	Paternity leave (5 days total)	Return to work	Shorter working hours Work from home Nursing-care leave (5 days per year) Family-nursing leave Child-nursing leave Half-day leave (unlimited)
Child-care leave	Child-care leave (up to 3 years, until the child completes the first grade of elementary school; can be taken on nonconsecutive days)			
Return to work	Shorter working hours (generally 6, 6.5, or 7 hours) Work from home (career-stream positions) Family nursing leave (5 days per year), child nursing leave (5 days per child per year) Half-day leave (unlimited), leave for overseas spouse transfers (3 years or less) Allowance for Balancing Child Care and Work (up to 100,000 yen per year per child, until the child completes the third grade of elementary school)			
	Cafeteria Plan*1 (child-care and nursing-care menu)			

*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."

Enhancing Work-Life Management Support Systems

Since the 1990s, we have been introducing and improving an array of programs for employees to balance work with family, aiming to create a more employee-friendly work environment.

In October 2016, we introduced an Allowance for Balancing Child Care and Work to further promote work-life management.

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

		FY 2017
Return rate (%)	Male	100.0
	Female	98.5
Retention rate (%)	Male	96.6
	Female	98.0

In-House Child-Care Centers

The Hitachi Group, in collaboration with its labor union, has set up in-house child-care facilities as a way to help employees balance work with child-raising.

Genki Club

"Genki Club" logo.

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)

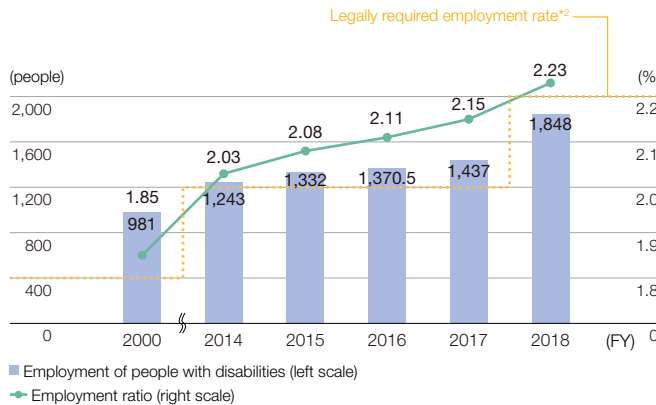| Established	April 2008
Location	2-27-22 Higashi-cho, Hitachi-shi, Ibaraki, Japan (near Yamazaki Division, Hitachi Chemical)
Capacity	23 children
Ages eligible	Children aged several months up to 6 years old (who have not yet entered elementary school) of Hitachi Chemical Group employees.
Operating hours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

Employing People with Disabilities

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. As a result, as of June 2018 the employment ratio of people with disabilities was 2.23% at Hitachi, Ltd. and 2.33% for the entire Group in Japan. Both of these figures exceed Japan's legally required employment rate of 2.2%—an increase of 0.2 percentage points compared to the previous fiscal year. We will maintain our Group-wide drive to hire more people with disabilities.

Key Indicators

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

Legally required employment rate[*2]

(people)	2000	2014	2015	2016	2017	2018	(FY)
Employment of people with disabilities	981	1,243	1,332	1,370.5	1,437	1,848	
Employment ratio (%)	1.85	2.03	2.08	2.11	2.15	2.23	

■ Employment of people with disabilities (left scale)
➝ Employment ratio (right scale)

*1 Includes 17 special subsidiaries and related Group companies.
*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 on June 1 of each fiscal year.
• The employment ratio is calculated according to methods prescribed in the relevant laws.

Diverse Support Systems for Employees

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[*1] that include housing support, such as dormitories, company housing, and a housing allowance system, as well as an asset-building savings program, an employee stock ownership program, group insurance, consolation payments, a Cafeteria Plan program, and an Allowance for Balancing Child Care and Work.

The cafeteria plan allows employees to select the benefits they receive. This allows them to tailor a plan to their individual lifestyles and living needs by choosing from a list of options, such as skills development, childcare, nursing care, health promotion, and donations. Employees use 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.

The defined contribution pension plan encourages employees to participate in their postretirement planning by providing asset management and investment education, as well as other support. We increased the choice of benefit options and timeframes for both the defined contribution pension plan and the defined benefit pension plan in order to better meet the varied needs of employees.

*1 For full-time, regular employees.

Promoting Occupational Health and Safety

Hitachi's Approach

As a corporate group that engages in multinational business activities, building safe, healthy, and hygienic workplace environments at business sites around the world is a Group-wide management task for Hitachi. This means that we must be sure to take into careful consideration the social conditions and workplace environment of each country and region.

Hitachi has thoroughly implemented measures for occupational health and safety since its founding. Currently, we are advancing a global occupational health and safety system based on the concept of decent work while also drawing on the lessons and knowledge gained at workplaces in Japan. The measures we take go beyond simple adherence to international ethics codes and include a unique award program to publicize best practices, support for employee-run health promotion activities, and a range of other initiatives. By implementing these at business sites around the world, we seek to continue fulfilling our responsibilities as a global business to create safe, healthy, and rewarding work environments across the entire Group.

Occupational Health and Safety

Fundamental Idea 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. This policy is shared by all Hitachi Group companies around the world. Employees work together to create safe, secure work environments that aim to be accident free.

Hitachi Group Health and Safety Policy

Principle
"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

Framework for Promoting Health and Safety

Hitachi views occupational health and safety as vital preconditions for advancing our business. Manufacturing and maintenance are particularly accident-prone lines of work, and we have around 34,000 employees performing work of this type in Japan. We promote a range of Group-wide occupational health and safety activities that include preventing workplace accidents by setting and applying minimum safety standards to be observed by Group manufacturers around the globe as well as taking additional measures tailored to the specific conditions at each company. We respond quickly when an accident occurs, using incidents to make improvements and boost our levels of health and safety management. Furthermore, we foster understanding of work procedures and workplace hazards in newly hired employees and temporary workers by providing health and safety training in advance along with guidance in the workplace.

In accordance with Japanese law, a health and safety commission—composed of company representatives, labor-union officials, and employees—is convened every month to discuss and share information related to such issues as workplace accident causes and countermeasures, the situation regarding employees who have taken sick leave, and other points of concern. In 2017, we recorded zero fatal workplace accident in Japan and five in the rest of Asia.

In fiscal 2011, we introduced the Hitachi Group Key Safety Management Designation System. This initiative tracks key safety management improvements at Hitachi Group companies and business sites in Japan that have experienced serious work accidents. Under the leadership of top executives, these

companies and business sites take on management-driven and bottom-up initiatives to formulate and promote specific improvement plans. We are also reshaping the Group's safety management framework and introducing targeted safety measures, including extensive investigations of the cause of serious accidents, reviews of risks to reduce potential accidents, and engagement of third parties with a high level of health and safety expertise to diagnose safety issues.

Key Indicators

● Occupational Accident Rates ✓
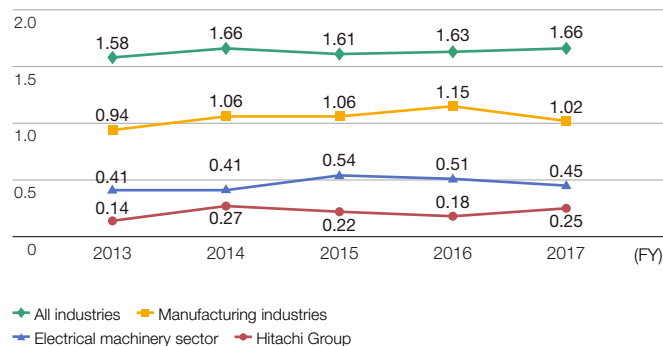
Note: Occupational accidents are defined as those involving fatality or work-time loss of one day or more. Hitachi Group figures for Japan, including Hitachi, Ltd., are for 195 Group companies in fiscal 2013; for 251 Group companies in fiscal 2014; for 240 Group companies in fiscal 2015; for 200 Group companies in fiscal 2016; and for 201 Group companies in fiscal 2017.

Hitachi Group's Global Safety Figures (Occurrence rate*1)

	2015	2016	2017
Americas	4.35	6.41	5.94
Europe	2.02	5.07	4.85
China	2.10	1.26	0.99
Rest of Asia	0.80	1.72	1.88
Other	22.05	7.74	4.24
Japan	0.42	0.35	0.48
Global total	1.21	1.33	2.93

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

Sharing Health and Safety Information in the Hitachi Group

We built the Hitachi Group Health and Safety Portal System in 2012 to ensure that every Hitachi Group company in Japan can track the health and safety performance of the entire Hitachi Group.

Group-wide information on work accidents is registered in the system so that companies can track causes and see what preventive measures have been initiated. To help prevent recurrences, statistics are kept on types of accidents. Since 2014, we have carried out initiatives to share information on workplace accidents globally, including one that tracks and provides feedback on accidents occurring at Group companies outside of Japan.

Once a year we hold the Hitachi Group Health and Safety Meeting for Hitachi health and safety directors and officers. The meeting held in May 2017 attracted around 100 participants, who shared newfound knowledge from case studies and heard special lectures from outside experts on ways to further improve health and safety activities at companies.

The Hitachi Group Health and Safety Award Program

We have implemented the Hitachi Group Health and Safety Award Program to recognize Group companies in Japan that extend their accident-free records or that receive prizes for health and safety from external organizations.

Initiatives to Improve Employee Health

Health is the foundation for being able to work with energy and peace of mind. The fundamental principle of the Hitachi Group Health and Safety Policy is that "Health and Safety Always Comes First." Based on this principle, we are engaged in efforts to maintain and improve the health of employees.

In Japan, occupational healthcare workers, human resource departments, and the Hitachi Health Insurance Society work together to provide 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 supports the health maintenance of employees by providing them with health guidance based on periodic health checks and other examinations to prevent serious disease, while also offering medical interviews and advice to employees working long hours to head off mental and physical disorders. We are also taking steps to raise health awareness through consultations that can help relieve employees' health concerns and promote regular exercise.

In December 2015, revisions to Japan's Industrial Safety and Health Act took effect, requiring businesses of 50 or more employees to put in place a stress-check system. We are proactively implementing stress checks 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 resource departments to improve workplace environments. In combination, these efforts are expected to help prevent mental health issues and revitalize workplaces. Recognizing that an understanding of basic mental health and stress coping skills is an effective preventive measure, we also conduct regular e-learning and other training sessions for our employees, including temporary workers.

Hitachi's efforts in this area were recognized under the 2018 Certified Health and Productivity Management Organization Recognition Program, conducted by Japan's Ministry of Economy, Trade, and Industry, in the large enterprise category (White 500).

In April 2018, we held the first Hitachi Group Health Conference. About 180 people participated in the conference, including health and safety officers and labor management officers from Hitachi and occupational healthcare workers such as physicians and nurses. Participants presented research results and shared information on methods and approaches for improving occupational health programs at business sites, developing the capacities of occupational healthcare workers, and advancing health and productivity management.

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

Hitachi was recognized under the 2018 Certified Health and Productivity Management Organization Recognition Program.

A Strategy for Growing Together with Our Global Human Capital

Hitachi's Approach

The globalization of the economy has led many companies to accelerate the shift toward multinational operations. Fostering global human capital has thus become indispensable to providing common global services while at the same time meeting the needs of each country and region. Impacting heavily on the employment and human resource strategies of companies over the medium- to long-term, though, are the falling birthrates and aging populations of industrial countries and the population explosion in developing nations.

The Hitachi Group, with a combined workforce of around 310,000 people engaged in business activities in countries and regions around the world, is promoting a global human capital management strategy. Specifically, in order to attract, promote, and develop the right human capital, we are taking proactive steps like standardizing required employee skills and evaluation standards globally and introducing the Global Human Capital Database, which renders human capital visible throughout the Group. A learning platform has also been launched for our employees around the world with the aim of cultivating human capital capable of growing our global business. Through additional initiatives such as effective implementation of Global Performance Management to improve employee engagement and analysis of feedback from our global employee survey, we will continue our efforts to perfect a human capital strategy that allows us to develop along with our employees.

Global Human Capital Development

Advancing Global Human Capital

Our Group-wide global human capital management strategy optimizes both human resources and organizational performance in pursuit of our goal of becoming an Innovation Partner for the IoT Era.

One example of our initiatives is the Global Human Capital Database covering all Hitachi Group employees, excluding factory workers outside Japan. This database enables us to fully ascertain the status of worldwide Group human capital and to assess macro management data, such as the allocation of human resources. We have also built a global grading system that applies to all managers in the Hitachi Group worldwide, 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 introduced a performance management system at Hitachi, Ltd. and at some Group companies worldwide to link the individual and operational business goals, with the aim of promoting mutual sustained improvement and the growth of both individuals and businesses.

We are also working on talent development initiatives to drive global business growth. We implemented "Hitachi University," a Hitachi Group and global common platform for learning opportunities, where everyone is encouraged to learn for growth. In addition, with an eye to supporting the advancement of employees as our global operations expand, we have adopted common global hiring systems to secure talented personnel, boost efficiency, and reduce hiring costs.

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.

Non-Japanese Employees*1 (Hitachi, Ltd.)

(People)

FY	People
2013	340
2014	446
2015	509
2016	638
2017	708
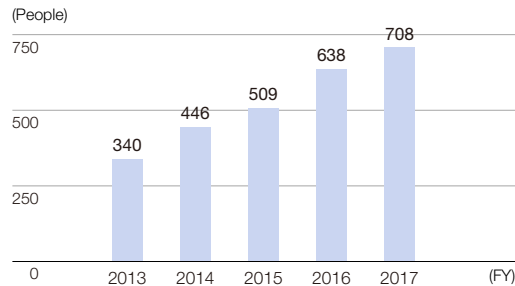
*1 Figures include contract-based technical intern trainees with fixed terms.

▶ **Providing Younger Employees with Overseas Experience**

Hitachi maintains broad 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 have offered a program for younger employees to live outside Japan. We have sent around 4,000 Group employees over seven 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 to accelerate the development of employees ready to take on global challenges. We will continue with these initiatives in fiscal 2018.

▶ **Globalizing Management Training**

Along with the rollout of global human capital management, we are also globalizing our human capital development programs.

We began to thoroughly revise our training of management candidates in fiscal 2015, implementing the Global Advanced 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, 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 2017, 28 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 resources 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 2017, the program was made biannual, and 46 leaders from around the world took part in total.

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 2017, around 2,800 people worldwide have taken part in these courses across our Group. As a result, the total number of participants has exceeded 10,000. We will continue to globalize our management development programs and cultivate leaders to guide us toward further growth in line with our global human capital management strategy.

▶ **Average Amount Invested in Education per Employee**

In fiscal 2017 the average amount invested for employee education by Hitachi, Ltd. and 14 major Group companies in Japan was 118,500 yen per employee.

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.

Future Initiatives for Career Development

In pursuit of becoming a major global player, we are upgrading individual and organizational performance as one of our top priorities. We create value built on employees' individuality and personal aspirations by implementing 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 under-standing 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.

Conducting a Global Employee Survey

Since fiscal 2013, we have been conducting the annual global employee survey, Hitachi Insights, as a way of measuring employee engagement.[1] In September 2017, the survey was administered for the fifth time. Around 200,000 employees worldwide were sent the survey in one of 14 different languages, and roughly 170,000 responses were received.

According to the aggregate results, the overall rating has improved for the fourth consecutive year. Hitachi scored particularly well in "pride in your company" and "teamwork," suggesting that employees are proud to be part of a company that is aiming to grow globally as an Innovation Partner for the IoT Era. On the other hand, the low scores for "resources and support" that were observed in fiscal 2016 did not improve. Employees may have expected Hitachi to do better on the level of staffing as well as information and resource tools—a situation we will continue to address by reforming working patterns, introducing new tools, and deepening 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.

Career Development in the Workplace

For Hitachi, the center of career development is the work that employees perform daily in the workplace. Based on Global Performance Management (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.

Promoting 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 11,100

people have participated in the program so far (as of March 31, 2018), 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 2017, 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," and "I gained a renewed awareness of the importance of my position and responsibilities."

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 2018 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."

Fair Operating Practices

There is a growing idea that companies should build their businesses with a view to promoting CSR throughout the supply chain, not just around the company's operations. This view informs such global initiatives as the Guidelines for Multinational Enterprises of the Organisation for Economic Co-operation and Development (OECD) and the United Nations' Global Compact and Guiding Principles on Business and Human Rights.

In seeking to be a company that continually fulfills its social responsibility throughout the value chain, Hitachi strictly adheres to laws and regulations and acts in a moral and fair manner with all its business partners. We thoroughly promote the compliance of our employees in all business

activities, including procurement, manufacture, sales, export, and taxation. To fully carry out our responsibilities as a corporate citizen, we not only encourage business sites to implement their own investigation and reporting systems for any improprieties but also promote the utilization of a compliance reporting system to prevent or promptly address such indiscretions.

Key SDGs

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Hitachi and Society

Our Impact on Society

No. of suppliers

30,000 companies
(66 countries)

Our Performance

CSR audits of suppliers

18 companies
(total of 106 companies since FY 2012)

Promoting Work Practices in Line with International Ethics Codes

Hitachi's Approach

Given the globalization of the economy and the increasingly borderless nature of corporate activities, our business increasingly spans countries and regions with different governmental and economic frameworks, trade practices, and sets of values. Common worldwide principles in the form of initiatives and guidance are becoming increasingly important in order to thoroughly implement fair business practices around the globe and to avoid any risks that could impede business activities.

Hitachi has formulated in-house regulations in line with widely accepted international standards to govern important business practices, such as bribery prevention, ensuring of fair competition, and tax compliance, and these regulations are made known to and thoroughly implemented across the Hitachi Group. There is ongoing global debate concerning each of these issues, and demands regarding corporate behavior and the interpretation of relevant rules and regulations are constantly evolving. We thus regularly review and update our in-house regulations as appropriate in responding to society's demands. We will continue to act in a thoroughly responsible manner as members of both the global and local community.

Preventing Bribery and Corrupt Practices

Measures to Prevent Bribery and Corrupt Practices

Preventing bribery and corrupt practices is a big challenge for a company today. In 2008 Hitachi established rules against bribery and corruption for the Hitachi Global Compliance Program along with guidelines indicating specific spending thresholds for entertainment, gifts, and other arrangements, also intended to prevent bribery and corrupt practices. 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.

To ensure awareness of these rules and policies, we developed a global e-learning program on preventing bribery and corrupt practices, making it available in nine languages—including Japanese, English, and Chinese—for use by Group companies worldwide.

As the risks of bribery and corruption vary according to the content of business, the industry field, the market where activities take place, the business counterpart, and other environmental factors, since fiscal 2013 Hitachi has conducted surveys across Group companies outside Japan (about 500 companies in fiscal 2017) considering possible risk scenarios. We will continue risk assessment regularly, reflecting the results in compliance activities.

In fiscal 2017, there were no incidents in which Hitachi violated or was penalized under laws or regulations regarding bribery or corrupt practices.

Measures to Prevent Unfair Competition

Preventing Violations of Fair Competition Laws

Hitachi engages in business based on the principles of conformance with the law and business ethics and fair and open competition. For this reason, the Hitachi Global Compliance Program incorporates 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.

Fiscal 2017 saw one incident where one of our Group companies was sanctioned and fined by the European Commission. This incident relates to a cartel in the condenser business that had already been identified by Japanese and US authorities in 2016 and earlier. As a measure to prevent recurrence of such an incident, the Group company involved has appointed a compliance head in each unit to conduct regular reviews of participating business associations and promote education through sharing cases of violations within and outside 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.

Tax Compliance

Implementing Thorough Tax Compliance

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. Additionally, 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.

Furthermore, following the establishment in April 2017 of rules for Group transfer pricing management, Hitachi manages transfer pricing in accordance with the OECD Transfer Pricing Guidelines as well as laws and regulations on transfer pricing in each country or region where Group companies are located.

Regarding tax compliance, Hitachi acts in accordance with all applicable laws and regulations. Hitachi did not have any significant fines or nonmonetary sanctions for noncompliance with tax laws and regulations in fiscal 2017.

Engaging in Responsible Procurement

Hitachi's Approach

International initiatives like the UN Global Compact have prompted companies worldwide to give greater thought to CSR and green procurement under which they take social and environmental concerns into consideration when selecting suppliers, thereby strengthening CSR activities throughout the supply chain.

As a company that procures products and services from suppliers in regions and countries around the world, Hitachi was quick to introduce CSR and green procurement policies, which are being meticulously implemented by all Group companies. High expectations have been placed on the Responsible Business Alliance (RBA, formerly called EICC) Code of Conduct in recent years as an international CSR standard for the industry. We are further evolving our procurement activities in line with this code, not only reviewing our own CSR standards but also auditing and cooperating with the CSR initiatives of our suppliers.

Moreover, Hitachi has taken the lead in responding to the issue of conflict minerals, which has been the focus of public concern in recent years, by scrutinizing the countries where raw materials are mined, thus preventing infringements on human rights by countries engaged in conflict. Keeping abreast of global trends, we will continue to share and strengthen on a Group-wide basis our commitment to fulfilling our social responsibilities throughout the supply chain.

Supply Chain Management

Creating and Sharing Procurement Policies

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*.

In fiscal 2016, 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. To ensure that the guidelines' provisions are strictly followed, we distribute the *Guidelines* 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.

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 we are 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 Green Procurement Committee, which includes members from business units and key Group companies.

In order to share the philosophy of Hitachi among our suppliers, in fiscal 2015 we also 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 2018 at a CSR and green procurement seminar held in Guangzhou for Hitachi Group partners in China. The event was attended by 90 people from 65 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.

Number of Hitachi Group suppliers
(as of December 2017):

Approx. 30,000 companies (66 countries)

Supply Chain Management Organizational Structure

President

Value Chain Integration Division — Development of CSR/green procurement policy

Procurement office conferences | Conferences for procurement managers

Hitachi Group CSR Green Procurement Committee (biannual)

CPO Joint Committee (every two months)

Regional procurement conferences (China/Asia/India: biannual; Europe/Americas: annual)

Group procurement strategy conference (biannual)

Target price conference (biannual)

Implementation by all procurement members

Business unit procurement members | Major Group company procurement members

Green Procurement

To procure parts and materials manufactured with reduced environmental impact, so that suppliers help to protect the environment, it is crucial that we share our commitment to environmentally conscious *monozukuri* craftsmanship through-out our entire supply chain. In fiscal 1998, we led the industry in developing *Green Procurement Guidelines* to 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 certifica-tions. 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 Europe's Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH) regulation for managing chemical substances within the European Union. Specific changes include: (1) moving some chemicals to the prohibited substances list, (2) further breaking down the con-trolled substances list, and (3) adopting the industry association list. The previous guidelines were revised to version 8.5 and distributed through Group companies and business units to suppliers to ensure that they are fully informed. We have built A Gree'Net, an Internet-based green procurement system, to collect information about chemical substances contained in

products and other environment-related data from suppliers as soon as it becomes available. The goal is to manage chemicals carefully. Under this system, we encourage 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.

We revised the guidelines again in April in 2018 in anticipation of the reporting templates becoming invalid at the end of June in the same year. Currently, instead of templates, we 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 chemCHERPA: 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 chemCHERPA-CI standard is applicable to chemical substances contained in chemical products and chemCHERPA-AI to those contained in molded products.

Hitachi Group Green Procurement Guidelines

Joint Article Management Promotion Consortium

Response to the Conflict Minerals Issue

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 procure-ment 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

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. In fiscal 2011, we appointed procurement officers to oversee local procurement in China, the rest of Asia, Europe, and the Americas.

A global supplier database built in fiscal 2013 was followed in fiscal 2014 by a new global procurement scheme using the professional service functions available in the Group at the time (Hitachi High-Technologies, Hitachi Capital, and Hitachi Transport System). 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.

Rate of Local Procurement of Materials for Main Regions (Hitachi Group)

China 78%

Rest of Asia 71%

Europe 70%

Americas 57%
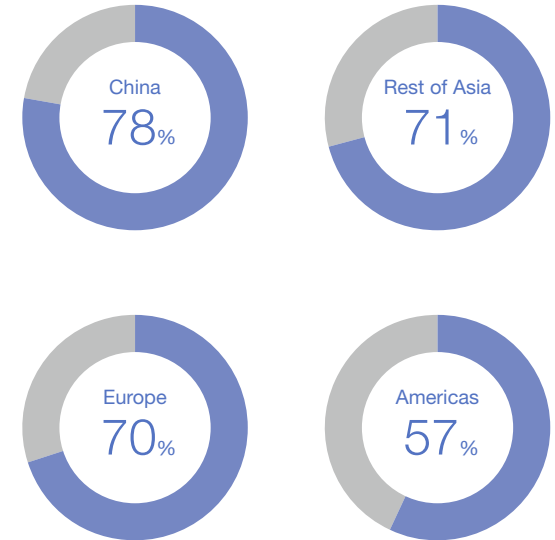
Implementation of CSR Monitoring (Self-Checks)

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 in fiscal 2017 we asked 131 suppliers inside and outside Japan to conduct CSR Monitoring and received survey replies from them. From fiscal 2017, all checklists were fully updated in accordance with the revisions made to the *Hitachi Group CSR Procurement Guidelines*. 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 2017, we conducted CSR audits of 18 suppliers.

For these audits, we engaged 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 18 suppliers audited in fiscal 2017, but some small areas needing improvement were noted, such as overtime work exceeding stipulated rules (14 suppliers), failure to conduct periodic inspections of machinery and equipment (12), and insufficient management of hazardous waste (7). 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.

Increasing Green Purchasing of Office Supplies

We are improving our green procurement rate—the ratio of environmentally conscious products purchased to total office supplies—by using a Group-wide online procurement system: the E-sourcing Mall. This system has a range of environmentally conscious products and promotes procurement by clearly labeling these products. In fiscal 2017, our green purchasing rate reached 86%.

Human Rights Due Diligence in Procurement

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 will further incorporate 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 will use 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 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
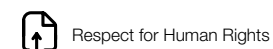
Customers
(Consumer Issues)

Hitachi's Aims: Building a Sustainable Society Through Our Products and Services

Under the Hitachi Group Codes of Conduct, we have worked to provide high quality and safe products and services and to prioritize the customer's perspective. The Hitachi Group provides a broad range of products and services extending from household electronics to social infrastructure, and we strive to expand our lineup to address the needs of our clients and issues facing society. We feel it is important to contribute to building societies where everyone can enjoy a lifestyle of convenience and comfort, and toward this goal we are working to respond to the diverse needs of customers regardless of factors such as age, physical and mental abilities, economic circumstances, and cultural background.

We develop products and services with which customers will be satisfied and which can be used with confidence while also striving to improve their accessibility. We also respect the rights of customers and are working to provide accurate information about our products and services while strictly managing customer information. In accordance with this philosophy, we provide a broad range of channels through which customers can make an inquiry or voice their opinions about our products and services. In addition to communicating with the sales floor staff, customers can contact our comprehensive customer support through the websites of Hitachi, Ltd. and all Group companies.

Key SDGs

17 PARTNERSHIPS FOR THE GOALS

Hitachi and Society

Our Impact on Society

No. of consolidated subsidiaries (Japan)

202 companies (as of March 2018)

Our Performance

Information and security audits ⊘

221 companies
(Hitachi Group in Japan and Hitachi, Ltd.)

Pursuing Customer Satisfaction

Hitachi's Approach

As a company that offers a broad range of products and services, we believe it is important to engage in corporate activities with the general public in mind, not just the corporate and individual consumers with whom we deal directly.

To improve customer satisfaction, we have created the Customer Satisfaction Management Guidelines. We share customers' thoughts obtained through direct dialogue, customer service counters, and other means within the relevant divisions and reflect these in our management, products and services, and solution strategies.

The opinions and requests we receive from our corporate clients, as well as the more than 2.2 million comments submitted each year by a broad spectrum of individual customers, are shared with all Hitachi divisions engaged in manufacturing. Drawing on our strengths as a provider of solutions for consumer issues, we apply this feedback in implementing improvements in a full range of products, from industrial equipment to consumer appliances.

We also look to communicate information through our advertising and public relations activities in a truthful and appropriate manner that does not mislead customers or in other ways that may adversely affect society, such as by reinforcing human rights infringements. These guidelines and activities are shared with a continually larger number of Group companies outside Japan, enabling Hitachi to enhance customer satisfaction from a global perspective.

Customer Satisfaction

CS Improvement Activities

Using the Customer Satisfaction Management Guidelines, one of the pillars of the company's business management, Hitachi continues to improve 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

Reflecting Customers' Voices

Our sales and marketing division uses 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 customer satisfaction.

Our Hokkaido, Tohoku, Chubu, Kansai, and Shikoku area operations hold executive seminars for local customers. 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 Europe, Asia, and other regions, 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. Project leaders invite customers to their research labs to see exhibits of products and systems currently being developed.

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 evaluating the expressions in advertisements that stands independent of the ad production process. 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 in particular, we strive to ensure appropriate advertising activities by confirming all items on the checklist included in the guidelines.

Providing Customer Support Online

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.

As one initiative, we have been holding the Web Inquiry Responsiveness Improvement Course since fiscal 2009. In fiscal 2017, 45 Hitachi Group company employees took the course (bringing the cumulative total to 795 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.

Improving Customer Satisfaction in Electric Home Appliances

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°

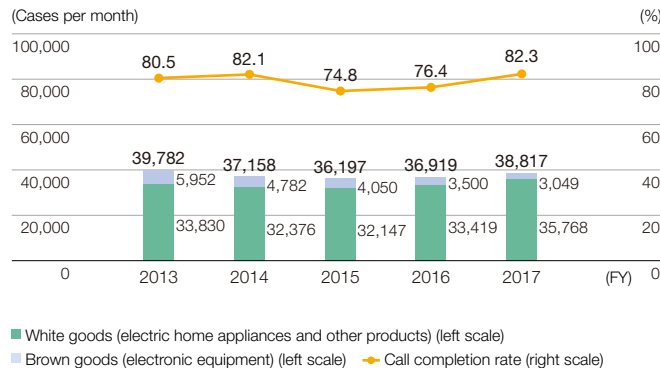Happiness: Encircling People and All Their Dreams for the Future."

Our call center and website handle about 2.24 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)

- 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
(Customer Satisfaction)
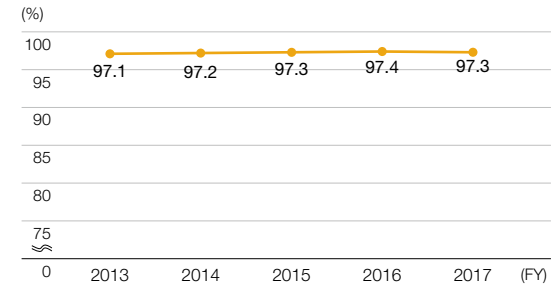
Note: Evaluation survey for fiscal 2017 carried out in June–July 2017 (35,400 respondents; 37.9% response rate) and December 2017–January 2018 (28,800 respondents; 35.8% response rate).

Flow of Customer Service

→ Response activity ·····> Flow of information <····· Information sharing

Ensuring Accessibility to Products and Services

Hitachi's Approach

ISO 26000 provides guidelines for corporate social responsibility. It identifies such core consumer issues as "fair marketing, factual and unbiased information," and "access to essential services," 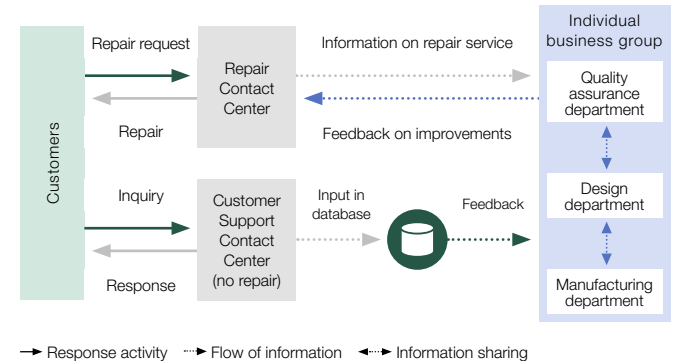and calls on corporations to actively take measures addressing these. It is the base of our CSR management framework, and in applying it we are working to improve our products and services to make them broadly accessible to society through such activities as the appropriate disclosure of product information and the promotion of universal design.

As symbolized by the adoption of the UN Sustainable Development Goals, worldwide interest is growing in achieving a more sustainable society, such as by supporting the economic growth and higher living standards of emerging economies. We, too, are enhancing our business structure to contribute to the development of these economies, developing products and services to meet new social needs and engaging in active marketing activities carrying out our Social Innovation Business.

Universal Design

We promote universal design (UD) with a focus on three aspects of our products: their quality of use, their accessibility, and their entire life cycle. Quality of use means focusing on the traits that make people feel that the product is easy and enjoyable to make a part of their lives. Accessibility refers to the range of people who can use a product or service. And life cycle covers all the customer-relevant stages of the value chain, from product purchase through to disposal.

We conduct basic research on users' behavioral and cognitive characteristics to formulate UD guidelines and reflect these in product development, incorporating input from users and experts at every stage. The information obtained during product development goes into a database shared by our businesses in Japan. We also distribute some of this information externally to promote open-source standardization and education.

We incorporate UD considerations as a fundamental component of home and digital appliance product design. During the development of the front loading washer-dryer machines released by Hitachi Appliances in 2017, we modified the 2016 UD-conscious models to further improve the product's performance, including increased capacity and extended range of functions.

Based on usability testing of the previous year's model, we built on earlier exploration of button layouts for more intuitive operation and angles for superior visibility to further enhance operational simplicity and usability by clarifying functional areas. For example, buttons are now aligned horizontally with a display panel behind each. Maintainability was improved by equipping the dryer filter with a sliding blade, allowing captured dust to be more easily removed.

A front loading washer-dryer machine that incorporates UD-conscious performance improvements.

Product Safety Information Disclosure

Information Disclosure for Safety

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.

Adaptation for Emerging Markets

Product and Service Adaptation for Emerging Markets

As a consequence of their rapid economic development, emerging markets face issues including food shortages, poverty, and environmental and energy concerns, which are attributed to urbanization and population growth. In an effort to seek solutions to these social issues, we are expanding our Social Innovation Business globally.

India is the seventh largest country by area and the second largest by population. With economic development expanding and household income rising nationwide, India's government has launched an ambitious program called Digital India that aims to digitalize administrative and financial services and provide digital infrastructure to citizens.

In April 2018, Hitachi formed Hitachi MGRM Net by acquiring shares in MGRM Net, a company with a history of successful application development for the government-led "e-Governance" digitalization initiative. Going forward, we will contribute to Digital India by offering solutions in fields such as education, healthcare, agriculture, and insurance, combining the expertise of MGRM Net with our Lumada IoT platform.

In the financial services field, Hitachi Payment Services (1,300 employees as of May 2018) provides services including operation and maintenance of automated teller machines (ATMs[1]) and support for optimal selection of ATM locations. As of May 2018, we manage over 50,000 ATMs and over 800,000 point of sale (POS) service devices.

Additionally, in response to India's strong demand for ATMs and a governmental "Make in India" initiative designed to promote the manufacturing sector, Hitachi established Hitachi Terminal Solutions India (30 employees as of the end of April 2018) as an ATM manufacturing base. Producing highly reliable banknote recycling ATMs using the latest sensing and mechatronics technology developed by Hitachi-Omron Terminal Solutions, the company is aiming at a manufacturing target of 1,500 units per month.

As the Digital India program advances, cashless settlement and other FinTech[2] services are expected to grow. Hitachi stands at the forefront of these developments, strengthening its support for cashless settlement services in addition to its existing cash settlement solutions and continuing to contribute to the improvement of India's financial and settlement infrastructure.

Moving forward, we also plan to expand our financial services business in Southeast Asia and other emerging countries.

*1 Here, ATMs are defined to include cash dispensers (CDs).
*2 FinTech: A portmanteau of "financial technology," describing convenient and innovative financial services using IT created from the point of view of customer needs.

Ensuring Thorough Management of Quality and Safety

Hitachi's Approach

Meeting the quality standards our customers expect and providing products and services they can use with confidence are the management themes cited at the beginning of the Hitachi Group Codes of Conduct that each employee is expected to fulfill as a promise to society. We are establishing thorough quality assurance measures from the design and production stages through after-sales service, as well as working to ensure a quick response and proper information disclosure in the event a problem emerges. In addition, as production and other operations increasingly take place outside of Japan, we are giving importance to quality assurance in our global human resource development activities and working to expand our current programs. To protect information privacy, Hitachi adheres to the European General Data Protection Regulation (GDPR) and other rules and regulations in each country and region around the world.

These efforts are important in enabling Hitachi to grow together with society. They must also be actively and comprehensively pursued in light of the impact of our products and services on society in case of an emergency. Hitachi not only complies with laws and regulations but also formulates and abides by stringent Group-wide criteria in response to economic, social, and technological demands.

Quality Assurance Activities

About Our Activities

Based on the Corporate Credo of contributing to society through the development of superior, original technology and products, Hitachi is engaged in the *monozukuri* craftsmanship with quality and reliability as top priority. An integral aspect of this is *ochibo hiroi*, Hitachi's traditional approach meaning "gleaning" in English, through which we learn from failure and further develop our technologies. In practice, when an accident occurs, we not only investigate the technical cause of the accident but also have an executive officer in charge and relevant staff members thoroughly discuss the process, framework, and psychological factors of the incident in order to improve our product reliability and customer satisfaction. To ensure that quality and reliability are maintained, we enhance 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, delivery, and maintenance.

Since fiscal 2010 we have been promoting Group-wide measures to ensure product safety, compliance with laws and regulations, human resource development, and quality improvements. In addition, with a view to achieving the goals of our 2018 Mid-term Management Plan, from fiscal 2016 we have been steadily working to improve the quality of services and the reliability of our products and to reduce losses arising from quality issues with better quality management.

▶ Intensive Risk Assessment
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, and conduct risk assessments from a wide perspective in collaboration with related business units and research laboratories. In responding to these risks, we apply the safety principles of ISO/IEC Guide 51 in accordance with the product safety handbook for business operators published by Japan's Ministry of Economy, Trade, and Industry, ensuring safety by means of the mitigation measures of risk reduction through design (fundamental safety design), risk reduction through protective measures (safeguards), and risk reduction through usage information (product manuals), in order of priority.

▶ Complying with Technical Laws
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 focus on clarifying product-specific laws (the product-specific laws map); on regulatory compliance activities and continuous

Response Flow in the Event of Product Accident

Flow of information → Report ◄···► Information sharing
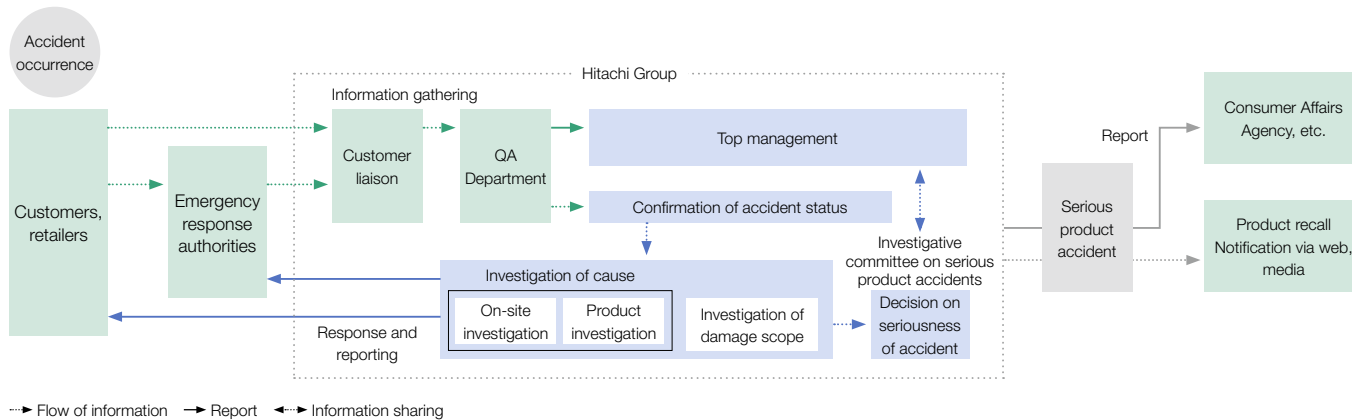
improvement of processes, based on our compliance management system; and on compliance education, as well as raising compliance awareness.

Handling Product Accidents

When a product accident occurs, the division responsible acts swiftly to resolve the problem 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.

Quality and Reliability Education

We conduct 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.

Ensuring Home Appliance Safety

We are reducing consumer appliance accidents to near zero levels in line with Hitachi's Customer Satisfaction Management Guidelines, which set avoidance of all accidents as the baseline. To this end, we conduct product safety risk assessment as well as testing worst-case scenarios—for example, deliberately setting a fire inside a product 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.

Training Global QA Personnel in Asia

As local production has been growing in Asia, we are carrying out training to ensure that products from the region meet Hitachi's global quality standards. For example, we host conferences for QA managers in China and Thailand, where we have a large number of manufacturing sites, to raise quality awareness with regard to Hitachi's *monozukuri* craftsmanship and to share information and best practices.

Additionally, to help employees in quality assurance become global players and improve their level of quality management, we provide three levels of training courses in Beijing, Shanghai, and Guangzhou in China and in Bangkok, Thailand: the Basic Reliability Course,[1] Intermediate Reliability Course,[2] and Advanced Reliability Course. In the Advanced Reliability Course, managers and senior managers hold group discussions on past product accidents to investigate the causes, including process-related, organizational, and psychological factors, and these discussions help them enhance their ability to identify issues and craft solutions.

*1 Basic Reliability Course: Deepens understanding of Hitachi's *monozukuri* craftsmanship, quality management, and labor safety.
*2 Intermediate Reliability Course: Improves understanding of more practical issues, including Hitachi's *monozukuri* craftsmanship, ISO 9001 certification, defect elimination, design for reliability, and purchase management.

Rigorous Information Management

Communicating with Customers on the Web and Social Media

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 Hitachi Disclosure Policy, the Global Information Security Administration Rules, and the Social Media Communication Guidelines as guidance instruments, sharing them with Group companies worldwide.

Also, HiCRM, Hitachi's customer relations management system, 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. We are currently considering rolling out the system more aggressively across the Group.

Protecting Personal Information

We established a personal information protection management system based on our 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.

During fiscal 2017, there was no grievance concerning breach of customer privacy or loss of data.

▶ Privacy Mark[1] Certification

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.

The entire Hitachi Group is committed to personal information protection, with 44 Hitachi Group companies ✓ in Japan having received the Privacy Mark as of May 2018.

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 no leaks of personal information during fiscal 2017.

*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.

🖱 Personal Information Protection Policy

▶ Personal Data Protection Laws Outside Japan

As the risk of privacy violation increases with the advancement of IT and globalization of socio-economic activities, lawmakers are actively seeking to create new legislation and modify existing laws in countries and regions around the world. In particular, the impact of the European General Data Protection Regulation (GDPR) has extended far beyond Europe's borders. The Hitachi Group is addressing the GDPR on a global basis, responding appropriately to it both within Europe and around the world. The Group continues to monitor related developments in order to take appropriate action when necessary.

Community Involvement and Development

Hitachi's Aims: Building a Better Future Through Collaborative Creation

Corporations interact with a diverse community of stakeholders through their on-site operations. In working toward a sustainable society, modern corporations are expected to recognize the value of community interaction and utilize their operational strengths in actively supporting the local community through projects that bolster involvement and development at the local level.

As a good corporate citizen, Hitachi is collaborating with various stakeholders in carrying out a diverse range of community activities with the aim of achieving coexistence with society, such as through youth development, creation of cultural diversity, assistance for local community development, and environmental preservation.

Key SDGs

4 QUALITY EDUCATION

17 PARTNERSHIPS FOR THE GOALS

Hitachi and Society

Our Impact on Society

Funding for social contribution activities

2,195 million yen

Our Performance

No. of participating volunteers

53,749

Promoting Sustainable Community Involvement and Development

Hitachi's Approach

Our diverse operations span the globe and involve a wide range of communities. In order to participate in a community, establish a long-term relationship with it, and contribute to its development, we believe it is important to strategically pursue social contribution activities and to establish sustainable goals. We have formulated a policy on social contribution activities and are carrying out a wide variety of activities across the Group.

The results of these activities are monitored using internationally recognized methods for measuring effectiveness, and improvements are made as needed. In order to realize the sustainable society envisioned by Hitachi, the entire Group will join hands to promote STEM education and cultivate human capital capable of tackling social issues. We will also seek additional ways for the Hitachi Global Foundation to contribute to local communities as we accelerate our efforts moving forward.

Social Contribution Activities

Policy on Social Contribution Activities

Hitachi's Group-wide policy on social contribution activities guides our promotion of a range of socially responsible initiatives. The engine of our various businesses including social innovation is driven not only by Hitachi's efforts to build a relationship with communities as a corporate citizen but also by our employees' flexible mindset and motivation brought about by volunteer activities. We believe that these initiatives enable us to contribute to the development of sustainability in both our business and society as a whole.

As one of Hitachi's global efforts, we introduced the Hitachi Volunteer Day in fiscal 2012. To mark the International Volunteer Day on December 5 each year, we set every November and December as a period during which we further encourage our employees to organize and take part in a broad range of volunteer activities to contribute to their communities. In fiscal 2017, approximately 4,400 employees and family members participated in 143 separate activities rooted in local communities, from environmental initiatives carried out together with local residents and students to support for welfare and educational facilities.

These activities are promoted by our Sustainability Promotion Division in conjunction with the CSR and social contribution departments of business units and major Group companies, planning and carrying out initiatives as appropriate to the nature of their business and the needs and challenges of the regions they operate in.

In fiscal 2017, Hitachi and the Hitachi Global Foundation provided 2,194.72 million yen in funding toward social contribution activities worldwide. Additionally, 53,749 Hitachi Group employees participated in social contribution activities.

Policy on Social Contribution Activities and Statement
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 and convey the meaning of the policy to as many people as possible.

Social Contribution Activities

Key Indicators

● Breakdown of Funding for Social Contribution Activities

Other 17.7 % (including disaster relief 9.7 %)

Human development 44.8 %

2,195 million yen*1

Community support 34.6 %

Environment 2.9 %
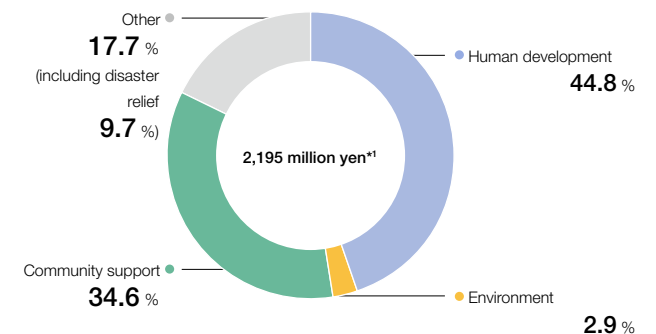
*1 Japan: Hitachi, Ltd., 141 Group companies, and the Hitachi Global Foundation.
  Outside Japan: 196 Group companies.

Classification According to LBG Guidelines

We conduct surveys of social contribution activities across all eight business segments by applying three categories of motivation based on the LBG[*1] measurement framework, namely, charitable gifts, community investment, and commercial initiatives in the community.

Hitachi continues to focus on ways to strategically align its social contribution activities with business operations, with efforts toward this end including continued charitable activities and increased community investment across the Hitachi Group.

Ratio of Social Contribution Activities Based on LBG Guidelines (monetary basis)

	FY 2014	FY 2015	FY 2016	FY 2017
Charitable gifts	80%	80%	75%	71%
Community investment	18%	16%	20%	23%
Commercial initiatives in the community	2%	4%	5%	6%

*1 LBG (London Benchmarking Group): An internationally recognized, global network of around 180 companies that provides a framework for measuring corporate community investment. Around 1,000 companies worldwide use the LBG model.

LBG

Advancing STEM Education as One Hitachi

The Hitachi Group and the Hitachi Global Foundation carry out activities related to science, technology, engineering, and mathematics (STEM) education in order to develop a new generation of human capital capable of addressing social challenges.

In Japan, we held the Hitachi Science Seminar with the cooperation of our Group companies, dispatch researchers to "Super Science High (SSH) schools" as scientific technological advisors, and support science education through volunteer employee activity in fiscal 2017.

The Hitachi High-Tech Group is developing its STEM education support activities globally. In North America, Hitachi High Technologies America, through its STEM Education Outreach Program, contributes to enhancing students' interest in science by lending tabletop microscopes to regional schools, colleges, teacher training conferences, science museums, and other institutions and organizations involved in science education. In fiscal 2017, more than 100 programs were carried out in ten states. Programs using tabletop microscopes were also independently planned and put in motion by local Hitachi High-Tech Group employees in China, South Korea, Singapore, and these activities are now expanding to Ukraine and Russia.

Hitachi India decided to carry out the setting up of Atal Tinkering Lab (ATL), a Government of India initiative, in schools, to implement and promote access to world-class STEM models and real-life problem-solving projects and inculcate familiarity with technology among students. The education program named by Hitachi India "UJJAWAL MIRAI (Bright Future)" fosters scientific thinking, problem-solving skills, and entrepreneurial mindset among secondary school students, in association with NGOs contributing to the promotion of STEM in India. In fiscal 2017, Hitachi India collaborated with the Indian Government and Kendra Vidyalaya schools (three schools) in Delhi through NGOs to provide access to the STEM program to more than 2,000 young students representing the 6th to 12th grades. Through March 2019, an estimated 1,000 additional students will continue to receive hands-on training in the areas of design thinking and usage of computational techniques.

Working as one Hitachi, we will continue to promote STEM education.

Russian junior high school students using microscopes provided through our STEM activities.

Social Contribution Activities

The Hitachi Global Foundation

The Hitachi Global Foundation, a corporate foundation funded by Hitachi, is engaged in non-profit activities in three areas: promotion of academic research, science, and technology; human development; and support for local communities.

Promotion of Academic Research, Science, and Technology: The Foundation awards Kurata Grants to support research in Japan. The Kurata Grants system was originally proposed in 1967 by Chikara Kurata, the second president of Hitachi, Ltd., who hoped to encourage the development of science and technology within the country. In fiscal 2017, the Foundation awarded 32 grants to research seeking solutions to social challenges in the three areas of energy/environment, urban development/transportation, and health/medical care.

The Hitachi Scholarship was established in 1984 and has since served to support the development of science and technology in Southeast Asia. In fiscal 2017, the scholarship system was thoroughly reviewed and restarted as the Research Support Program. This new program aims to support scientific and technological research in the same three areas as the Kurata Grants system. Applications are now being

accepted from doctoral degree holders at 15 colleges and universities in 6 Southeast Asian countries.

Human Development: Hitachi has developed a unique, project-based quest-style educational program called the Hitachi Future Innovator Program. In fiscal 2017, the program was trialed at two elementary schools in Japan: an elementary school attached to Faculty of Education, Wakayama University, in Wakayama Prefecture; and Midorino Elementary School in Nakano City, Tokyo. Designed to foster a new generation of STEM professionals capable of creating innovation, the program also featured Hitachi Group employees participating as corporate lecturers. Hitachi also held an education forum attended by a total of over 130 stakeholders from within and outside the Hitachi Group to broaden understanding of the program's educational merit.

Support for Local Communities: The Foundation published the second issue of its web magazine *Mirai* ("Future"). The issue's theme is the dark side of the parent-child relationship, and it features articles written by experts in medicine, psychology, sociology, and criminology as well as interviews with journalists delving into the problems that exist within the parent-child relationship in modern society.

Fiscal 2017 marks the 50th anniversary of the Foundation's activities. This landmark was commemorated by a symposium entitled "Investment in Children Creates the Future: Educational Investment and Social Return," with the aim of reviewing, in a modern context, the themes of early childhood education and healthy juvenile development pursued by the Odaira Memorial Hitachi Educational Foundation and the Hitachi Mirai Foundation (forerunners of the Hitachi Global Foundation). The symposium also addressed the pressing social issues of child poverty and inequality.

Hitachi will continue developing non-profit projects that contribute to resolving social challenges in response to the requirements of the times.

The Hitachi Global Foundation

Environment

Hitachi's Aims: Achieving a Low-Carbon Society, a Resource Efficient Society, and a Harmonized Society with Nature

The world's population, which was 7.6 billion in 2017, is projected to grow to 9.8 billion by 2050 and to 11.2 billion by 2100.[1] Global GDP is also continuing to expand, aggravating a host of environmental problems, including climate change caused by higher CO_2 emissions from fossil fuel consumption, the depletion of resources due to increased demand, and ecosystem destruction. Global-scale efforts are being made to develop approaches that lighten the burden on the environment so that a prosperous planet can be passed on to future generations.

Hitachi strives to achieve a more sustainable society by addressing environmental problems, which pose a major challenge for society, based on its corporate mission of contributing to society through the development of superior, original technology and products.

[1] According to World Population Prospects: The 2017 Revision, published by the United Nations.

Key SDGs

13 CLIMATE ACTION

Hitachi and Society

Our Impact on Society

GHG emissions throughout value chain

121.83 Mt-CO₂e[1]

[1] CO_2e: CO_2 equivalent.

Our Performance

Reduced emissions from products/services

33% (base: FY 2010)

Advancing Our Environmental Vision and Long-Term Environmental Targets

Hitachi's Approach

Hitachi faces a broad range of environmental challenges regarding its products and services, such as reducing carbon emissions, improving resource efficiency, and minimizing impact on natural capital across the value chain. At the same time, given the expectations of society, achieving innovations that help resolve environmental issues presents major business opportunities.

Guided by an Environmental Vision defining the goals of environmental management from a broader perspective, we announced in September 2016 a set of long-term environmental targets called Hitachi Environmental Innovation 2050 to achieve a low-carbon society, a resource efficient society, and a harmonized society with nature. We are promoting Group-wide environmental activities in line with our Environmental Action Plan for 2018 that lays out specific activity areas and improvement targets over a three-year period.
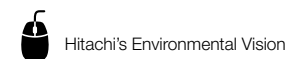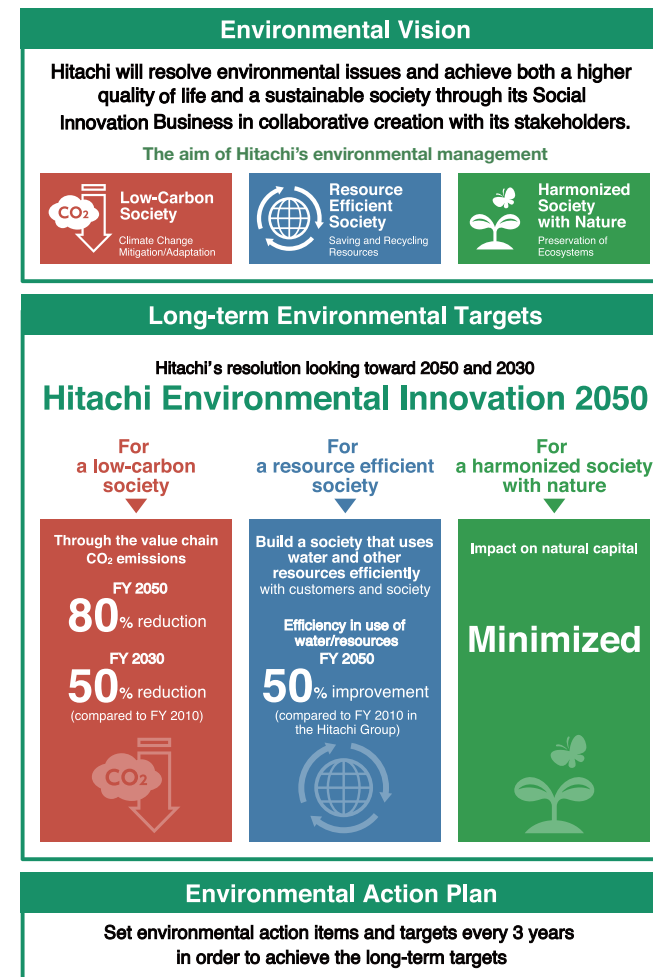
We will promote efforts to achieve the targets set forth in Hitachi Environmental Innovation 2050 and the Environmental Action Plan for 2018 in order to conduct environmental management in a manner that meets the expectations of society.

The Environmental Vision and Hitachi Environmental Innovation 2050

As climate change, resource depletion, ecosystem destruction, and other environmental issues grow more serious, companies face increasing demands and expectations to reduce the environmental burden of their business activities.

The *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 Paris Agreement, which came into force in 2016, sets ambitious targets, including a global long-term target of keeping global warming to below 2°C and efforts to limit the increase to 1.5°C. Environmental targets have also been set in the Sustainable Development Goals (SDGs)—the centerpiece of the 2030 Agenda for Sustainable Development, adopted by the United Nations in 2015—whose Goal 13 reads: "Take urgent action to combat climate change and its impacts."

In the light of these global demands and our own management policy, we created an Environmental Vision clearly stating our aim to both improve the quality of life and achieve a sustainable society from a long-term perspective, as well as to achieve a low-carbon society, a resource efficient society, and a harmonized society with nature by promoting environmental management. Looking toward 2030 and 2050, we also established long-term environmental targets called Hitachi Environmental Innovation 2050 that demonstrates our resolve to achieve the kinds of societies outlined in our

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

CO₂ Low-Carbon Society	Resource Efficient Society	Harmonized Society with Nature
Climate Change Mitigation/Adaptation	Saving and Recycling Resources	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 CO₂ emissions	Build a society that uses water and other resources efficiently with customers and society	Impact on natural capital
FY 2050 **80%** reduction		
FY 2030 **50%** reduction (compared to FY 2010)	Efficiency in use of water/resources FY 2050 **50%** improvement (compared to FY 2010 in the Hitachi Group)	**Minimized**

Environmental Action Plan

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

Hitachi's Environmental Vision

Environmental Vision.

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

Achieving a Low-Carbon Society

Efforts to Achieve a Low-Carbon Society

Hitachi has established a goal of reducing CO_2 emissions throughout its value chain by 50% by fiscal 2030 and 80% by fiscal 2050 (compared to fiscal 2010 levels) to help achieve the drop in global anthropogenic GHG emissions deemed necessary in the IPCC's *Fifth Assessment Report*.

Because a significant share of our value chain CO_2 emissions comes from the use of our products and services by our customers, our efforts to reduce such emissions focus on enhancing the efficiency of our products, delivering supplies of low-carbon energy, and developing innovative technologies and solutions. We will also reduce emissions during production by enhancing the efficiency of our factories and offices, advancing energy-saving measures, and expanding our use of renewable energy.

Ratio of CO_2 Emissions at Each Stage of Hitachi Value Chain

Production

Transportation

Disposal/recycling

Use

Procurement of raw materials/parts
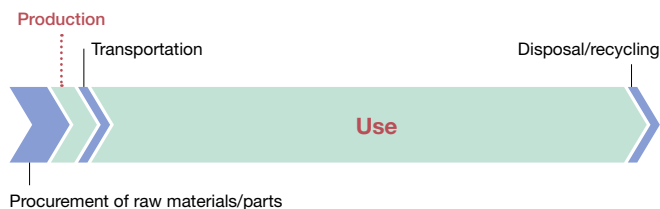
▶ Responding to Climate Change Through Growth in "Low-Carbon Businesses"

As part of its efforts to address challenges posed by climate change, Hitachi is combining the strengths of its business units and Group companies through digital solutions built on the Lumada platform, and expanding its low-carbon businesses through co-creation with customers and partners.

To help achieve low-carbon energy supplies, we offer wind and other non-fossil energy systems. We also promote improvements in power distribution efficiency via the use of smart grids and related technology. To realize low-carbon spaces, we are striving to make buildings more efficient through total solutions and reduce the energy requirements of factories via smart manufacturing. Through the development of more efficient railway systems and the promotion of increased adoption of automotive electric powertrains, we are providing highly efficient transportation methods in order to achieve low-carbon mobility. Our amorphous transformers and other low-carbon products contribute to increasing efficiency and reducing emissions throughout society. In these and many other ways, we are helping to realize a low-carbon society and promoting measures to address climate change.

Low-Carbon Businesses: A Hitachi Focus

Achieving Low-Carbon Energy Supplies

■ **Non-fossil energy systems**
· Wind energy systems

■ **Smart grids**
· Distributed power supply solutions
· Energy management

Wind energy systems.

Achieving Low-Carbon Spaces

■ **Offices**
· Total solutions for buildings
· Elevators
· Escalators

■ **Factories**
· Smart manufacturing

■ **Smart life & ecofriendly systems**
· Smart life business
· Home appliances

Elevators. Escalators.

Achieving Low-Carbon Mobility

■ **Railways**
· Operation management/railway information systems
· Rolling stock

■ **Automobiles**
· Electric powertrain systems (Storage batteries, motors, inverters, etc.)
· Automobile components

Rolling stock.

Low-Carbon Products

■ **Industrial equipment**
· Amorphous transformers
· Air compressors
· Motors

■ **High functional materials & components**
· Amorphous metal materials for transformers
· Rare earth magnets

Amorphous transformers.

Digital solutions built on Lumada platform

▶ Reducing CO₂ Emissions at Factories and Offices

Another way that we are reducing CO₂ emissions is to promote thoroughgoing energy savings at our factories and offices. We are applying IoT technology to enhance production efficiency at our factories, installing smart meters to reduce energy use during production. We are advancing the effective utilization of renewable energy and introducing renewable energy credits.[1] We are adopting internal carbon pricing[2] to raise the priority of low-carbon investment and developing self-consumption solar power schemes to further encourage the spread of renewable energy. Through these activities, by fiscal 2030 we aim to reduce CO₂ emissions at factories and offices by 40% to 50% from fiscal 2010 levels.

[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.
[2] Internal prices for carbon emissions and reductions that companies set voluntarily to guide their investment and risk management decisions.

Low-Carbon Roadmap for Factories and Offices

- Enhancing productivity
- Installing high-efficiency equipment
- Renewable energy
- Renewable energy credit
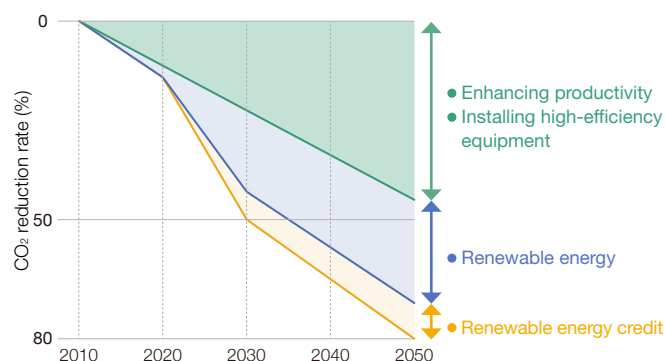
Achieving a Resource Efficient Society

Efforts to Achieve a Resource Efficient Society

Together with our customers and society, Hitachi will work through its business operations to help build a society that uses water and other resources efficiently. We have set a target of improving the usage efficiency of water and other resources by 50% compared to fiscal 2010 levels by fiscal 2050. 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

▶ Initiatives to Build a Water Efficient Society

We will build a water efficient society by enhancing the efficiency of water usage and responding to water shortages. With regard to the former, we began setting reduction targets for water usage in fiscal 2006 and have been undertaking

initiatives to meet those targets. As a further step, we have established a long-term environmental target for fiscal 2050 to improve water use per unit by 50% compared to fiscal 2010 levels. Hitachi uses water in such production processes as cooling and cleaning, as well as for air conditioning. We will make a Group-wide effort to reduce water usage by promoting the use of recycled water and rainwater and strengthening measures against water leakage.

To address water shortages at Hitachi factories and offices, we are investigating water risks at approximately 200 Hitachi business sites around the world based on publicly available water stress maps. In fiscal 2017, we performed water risk assessments, calculating water demand and supply per watershed, at 40 business sites in countries with water shortage concerns. At 5 of those sites, we made efforts to obtain more detailed information, conducting surveys covering such factors as topography, geology, land use, and water demand. Going forward, we will plan and execute additional usage reduction measures based on the findings of the water risk assessments.

The shortage of water is also a global social concern, and we will contribute to its resolution through the generation of water resources. Hitachi has delivered wastewater recycling systems and desalination systems for use in different sectors and to meet a variety of needs for customers both in and outside Japan. We will further develop our technologies to address the needs and concerns of our customers in contributing to improving the water usage environment around the world.

▶ Initiatives to Build a Society that Uses Resource Efficiently

We will build a society that uses resource efficiently by enhancing efficiency in the use of resources and promoting the reduction and recycling of waste materials.

With regard to the former, while we have long been advanc-

ing efforts to reduce the generation of waste and valuables, we have established a long-term target for fiscal 2050 to improve waste generation per unit by 50% compared to fiscal 2010 levels. We will create products that use less resources and last longer to make the most of finite natural resources.

As for waste reduction and recycling, we will seek to reduce waste materials generated during production through such treatment processes as dehydration, desiccation, oil separation, crushing, and sorting. As for reusable waste and scrap, we will use them as raw materials in Hitachi products through closed-loop recycling. Active efforts will also be made, where possible, to reuse waste materials as fuel.

In our business operations, we will advance the development of new technologies to further promote the efficient use of resources, including through refurbishing (servicing end-of-use products to a condition conforming to new-product standards) and remanufacturing (restoring end-of-use products through disassembly, washing, component replacement, and other work to a condition equivalent to new products). These technologies and services will be offered broadly to contribute to building a resource efficient society.

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. 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
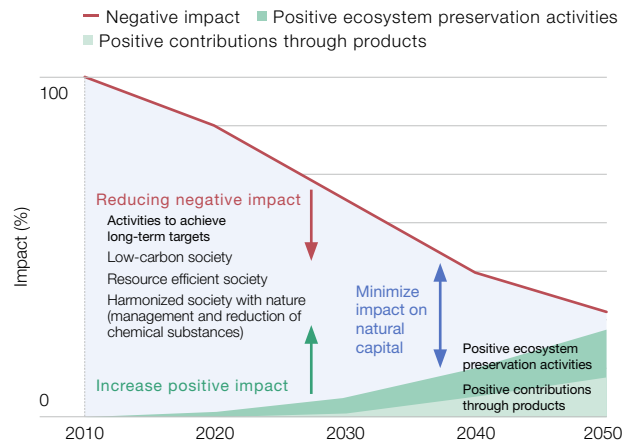
▶ Initiatives to Minimize Impact on Natural Capital
Hitachi has identified and quantified the negative impact our business activities have on natural capital. In fiscal 2017, approximately 40% of such impact related to climate change, and 20%, respectively, concerned waste materials, resource consumption, and urban air pollution. To reduce these and other forms of negative impact, we are advancing measures to achieve a low-carbon society and a resource efficient society, as outlined in our long-term environmental targets, and such other steps as the management and reduction of chemical substances.

To maximize our positive impact, meanwhile, we need to undertake social contribution activities toward forest conservation and to provide products and services that contribute to ecosystem preservation, such as water treatment plants. We will advance these measures and also discuss ways to quantify the effect of such activities. We have set targets for measures that are difficult to quantify but are nonetheless important, such as education regarding ecosystem preservation and the protection of rare species, and will make ongoing efforts in these areas as well.

Negative Impact on Natural Capital (FY 2017)
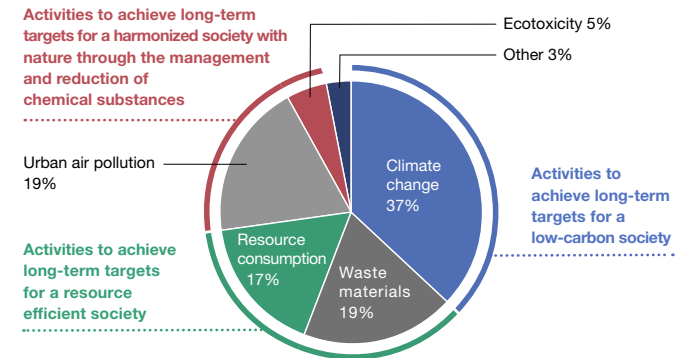
Note: Calculated using version 2 of the Life-cycle Impact Assessment Method based on Endpoint Modeling (LIME2).

🖱 Scope of Negative Impact Calculations

Managing Environmental Risks and Opportunities

Such phenomena as abnormal weather conditions around the world associated with climate change, resource depletion, and loss of biodiversity are projected to grow more serious in the future. To respond to these critical developments in human history, society must transform itself by strengthening regulatory mechanisms that contribute to a low-carbon society, including the Paris Agreement. Businesses, too, must monitor and respond to these changes, accurately ascertaining the risks they face and the opportunities that arise for the utilization of management resources. In 2017, the Task Force on Climate-related Financial Disclosures (TCFD) published its recommendations, and investors are more actively seeking corporate disclosures of climate-related risks and opportunities.

Hitachi focuses on two particular environment-related risks and opportunities—climate change and water resources—and not only promotes initiatives to address them in a steadfast manner but also actively advances information disclosure.

Environment-Related Risks and Opportunities

Engaging with Climate-Related Risks and Opportunities

Hitachi sees climate change risks and opportunities as important management issues. One governance mechanism that we established to address such risks and opportunities is the Executive Sustainability Committee, chaired by the Hitachi president and CEO, with other top executives serving as committee members. The committee develops business strategies to minimize risks and maximize opportunities from climate change in line with relevant global regulations and policy trends.

In 2017, the Task Force on Climate-related Financial Disclosures (TCFD), established by the Financial Stability Board in response to a request from the G20 Meeting of Finance Ministers and Central Bank Governors, published its recommendations seeking corporate disclosures of information about climate-related risks and opportunities. In June 2018, Hitachi announced its endorsement of the TCFD and is preparing its information disclosures based on its recommendations. Hitachi has long disclosed its environmental risks and opportunities in the *Hitachi Sustainability Report*. However, in accordance with the categories outlined in the new global TCFD recommendations, Hitachi is reviewing its risks in two categories, namely, risks related to the transition to a low-carbon economy and those related to the physical impact of climate change. In terms of opportunities, we are positioning our contributions to the creation of a low-carbon society through enhanced energy-saving features of our products and services as a major opportunity, and are discussing how we can further expand it.

▶ Risks in Transitioning to a Low-Carbon Economy
Policy and Legal

Carbon taxes, energy consumption taxes, emissions trading systems, and other measures may be newly introduced or further strengthened, representing risks impacting directly on management costs in addition to those incurred in complying with the environmental regulations and policies of countries and regions around the world. The direct and increased burden on management costs will become a disincentive for investment in R&D toward reducing environmental burdens and for low-carbonization and weaken the cost competitiveness of companies. Regulations imposed on businesses with a relatively large environmental burden may present a large risk to business continuity.

To mitigate such risks, we have been reducing or minimizing cost burdens by enhancing production efficiency and introducing energy-saving measures. In fiscal 2017, our energy-saving investments totaled approximately 5.4 billion yen. Should our products fail to meet energy-efficiency standards and regulations, we will risk losing sales opportunities. In addition to strictly complying with existing standards and regulations, we will always endeavor to keep abreast of trends in laws and regulations and participate in the planning of new policies.

Technology

To reduce CO_2 emissions caused by the use of our products and services by our customers, which make up a significant

share of emissions in the value chain, we need new technology to achieve further energy-saving in our products and services. We risk losing sales opportunities if investments to reduce environmental burden, such as in low-carbon technologies, do not lead to expected results, and we are not able to meet customer demands or market needs.

Therefore, by applying Environmentally Conscious Design Assessments in the design and development stages of Hitachi products and services, we assess various environmental aspects at each stage of the product life cycle and strive to minimize environmental impact. Hitachi is also endeavoring to develop technology that takes into consideration environmental issues faced by customers and market needs. In addition, by combining Hitachi's longstanding expertise in a wide range of social infrastructure technologies with operational technology (OT) and IT, we can provide optimal solutions that lead to the creation of new business opportunities.
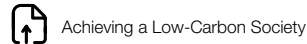
📄 Achieving a Low-Carbon Society

📄 Developing Environmentally Conscious Products and Services

Market and Reputation
A company's approach to climate change issues influences stakeholders' evaluations, and changes to market values, such as placing great importance on climate change countermeasures, affects customers' choices of products and services. This may pose a risk to business continuity.

Hitachi upholds long-term environmental targets of reducing CO_2 emissions throughout our value chain by 50% in fiscal 2030 and 80% in fiscal 2050 compared to fiscal 2010 levels. We aim to increase the likelihood of our products and services being selected by our customers through energy-saving investments to renew facilities and equipment for higher efficiency; improvements in production efficiency through digitalization; the promotion of environmentally conscious design during the design and development stage; and the provision of products and services with high energy-saving performance.

📄 Achieving a Low-Carbon Society

▶ Risks Related to the Physical Impacts of Climate Change
Acute and Chronic
Climate-related physical risks include acute risks, such as increased severity of typhoons and floods, and chronic risks, including climate patterns that may cause the sea level to rise and chronic heat waves. Hitachi has a worldwide business presence and believes that disasters due to weather phenomena attributed to climate change, such as increasingly bigger typhoons and torrential rainfall, pose a risk to business continuity.

In order to minimize these risks, we take into consideration such factors as location and the possibility of damage from flooding when setting up a new plant or deciding on the deployment of equipment. We also use the *Hitachi Group Guidelines for Developing Business Continuity Plans* that outline measures to be taken in times of disaster to mitigate risks.

📄 Achieving a Resource Efficient Society

📄 Stable Provision of Products and Services

▶ Climate-Related Opportunities
Resource Efficiency
Hitachi is promoting the efficient use of resources by reducing waste, recycling, and undertaking other measures. Also, for the efficient and sustainable use of natural resources, we are promoting efforts to minimize the amount of natural resources we use through improvements in production processes and resource-conserving designs. We are also promoting the efficient use of water resources by using recycled water and rainwater.

As for our business operations, we are developing a range of water treatment technologies, including high-quality water generation, water purification, water supply, and sewage, to provide solutions globally for the expanded circulative use of water. For regions experiencing chronic water shortages, we are promoting the provision of seawater desalination systems.
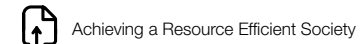
📄 Achieving a Resource Efficient Society

📄 Enhancing Efficiency of Water Usage

Energy Source
Hitachi proactively uses renewable energy for our factories and offices. In our factories, we are able to efficiently use the electricity supplied from photovoltaic power generation facilities, despite fluctuations in the amount of power generated, by monitoring and controlling energy usage on production lines and by using storage batteries. Also, we are promoting the adoption of renewable energy credits and the expanded deployment of internal carbon pricing and the self-consumption solar power generation. In our offices, too, we are enhancing the efficiency of energy-using equipment, such as lighting and air conditioning, as well as visualizing energy usage and

optimizing the amount of energy used in the building as a whole through Building and Energy Management Systems (BEMS).[*1] Through activities like these we are reducing our operating costs and striving for more efficient production.

In our business operations, we create new business opportunities, such as by actively providing renewable energy from wind power generation systems.

*1 BEMS aim to optimize the internal environment of a building and its energy efficiency.

📄 Achieving a Low-Carbon Society

📄 Climate Change Measures in Factories and Offices

Products, Services, and Markets

Products and services featuring innovative, energy-saving technology that can contribute to the mitigation and adaptation of climate change are viewed as having the potential to increase market value and revenue. Many of our products use energy, so we must enhance the efficiency of our products and services and facilitate low carbonization in order to contribute to resolving the issue of climate change. Hitachi has established long-term environmental targets for reducing the CO_2 emissions throughout our value chain. To this end, we will continue to provide products and services that contribute to the creation of a low-carbon society through our Social Innovation Business. We are developing ultra-efficient products and low-carbon energy, as well as encouraging their use. We are also promoting the development of innovative devices and materials that contribute to reducing the environmental burden. In fiscal 2017, Hitachi's total investment in R&D was 332.9 billion yen, including sizable spending to reduce the environmental burden.

A company's approach to climate change issues influences stakeholders' evaluations and affects customers' choice of products and services. Hitachi not only meets the required standards and regulations for the energy efficiency of its products, but also develops and provides energy-saving products and services that go beyond the prescribed standards, thereby increasing opportunities to be chosen by customers.

📄 Achieving a Low-Carbon Society

Resilience

We have devised a plan for vital functions to be maintained through the use of renewable energy and storage batteries if a power outage occurs in any of Hitachi's main factories.

In our business operations, we are providing disaster-prevention solutions to help various countries and regions deal with the rise in natural disasters. Hitachi uses sophisticated IT developed over the years to analyze and evaluate data pertaining to people's daily lives, meteorological and other natural trends, and the operation of social infrastructure, in promoting the provision of solutions conducive to responding to climate change.

Engaging with Water-Related Risks and Opportunities

Hitachi is responding to water-related risks and opportunities with our customers and society through our business operations by establishing a long-term environmental target of building a water- and resource-efficient society by 2050.

▶ Regulatory Risks and Opportunities

We are subject to regulations stipulated by different countries and regions concerning water use, such as a tightening of quality standards for both water supply and drainage and a jump in prices. These regulations pose a risk for our business activities, but they can also be an opportunity for our water-related business.

Hitachi places the water-related business as a core undertaking, having established the Water Business Unit to provide machinery, electrical facilities, 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. We have developed technologies for the water treatment facilities and services we offer to our customers, and we are now advancing water environment solutions to comprehensively resolve water-related challenges with data processing technologies that combine our operational technology (OT) and IT. We will help customers use water more efficiently to lessen the impact of water-related regulations, such as restrictions on water intake. We will also contribute to formulating appropriate rules and guidelines by proposing innovative water treatment control technologies.

At approximately 200 Hitachi business sites around the world, we are promoting appropriate water usage for each locale by investigating and analyzing water risks and usage

status in cooperation with national and regional governments as well as water supply and sewage companies to be prepared for any regulatory risks that may arise in the future.

▶ Risks and Opportunities Presented by Physical Factors
Water-related risks and opportunities presented by physical factors include shortages, especially of freshwater, and flood damage. Just as there are countries and regions around the world that are endowed with rich water resources, there are also many places where people do not have enough water for their everyday lives and for agriculture. Hitachi believes that efforts to resolve these water-related challenges represent business opportunities. We have been expanding our water recycling and seawater desalination business in low rainfall areas facing serious water shortages and islands with no freshwater resources like rivers.

In the water recycling business, higher demand for water resulting from increased production is met through the reuse of wastewater to reduce underground water usage and optimize supply to and drainage from plants.

In our desalination business, a range of technologies are being developed to meet our customers' needs and help resolve their challenges. For example, our "E-Rex Water" RO (reverse osmosis) desalination system features a vastly improved freshwater recovery rate, and our "RemixWater" water production system is a unique and effective solution that combines desalination and sewage treatment. These systems are custom-made for various purposes and have been installed at more than 100 locations around the world, contributing to the solution of water shortage problems.

We are also focusing on physical water risks at our own plants. A water shortage is usually regarded as the main physical risk for ordinary plants. However, since Hitachi's business sites are concentrated in areas near rivers or with a rich source of underground water, we consider this physical risk to be minimal. Even so, we will conduct regular risk assessments in anticipation of future water shortage caused by such factors as economic development and population increases. We have taken appropriate and necessary measures to secure dedicated waterways in case there are water-access concerns. We also deem flood damage as a physical risk. At times of new plant constructions, therefore, we keep the potential damage in mind when choosing sites. When we judge countermeasures to be required, we install bulkhead partitions or place essential amenities on the second floor—including at existing plants. We check upstream water levels every month and set up flood task forces when levels reach a dangerous level, sharing such information with our suppliers. We also diversify risks by procuring components from multiple suppliers.

We will continue to promote necessary measures to minimize water-related physical risks.

Continuous Enhancement of Environmental Governance

Hitachi's Approach

Establishing and continuously improving systems to promote environmental management are vital to fully reducing the environmental burden of the Hitachi Group toward the goal of achieving our Environmental Vision.

We are enhancing environmental governance through a global environmental management system—covering Hitachi, Ltd. and 879 consolidated subsidiaries (a total of 880 companies)—under the direction of the Executive Sustainability Committee, chaired by the president and CEO of Hitachi, Ltd. Based on a number of certifications and guidelines, including ISO 14001, we have developed a Group-wide environmental management system that allows us to gauge our environmental burden in a uniform manner despite the broad range of our business activities and to steadily implement a PDCA cycle to reduce that burden. We apply Environmentally Conscious Design Assessments during the design and development stages of the products and services we offer in order to reduce our environmental burden across the value chain.

We will make a Group-wide effort to achieve the goals of Hitachi Environmental Innovation 2050 and the Environmental Action Plan for 2018 through a global environmental management system and a framework for keeping track of the environmental performance of the broad range of our business activities, enabling us to reduce our environmental burden across the value chain.

Environmental Management

Environmental Management Framework

We are enhancing environmental governance through our global environmental management system, supporting environmental decision making and implementation at Hitachi, Ltd. and 879 consolidated subsidiaries (a total of 880 companies).

The Sustainability Promotion Division is responsible for developing Group-wide environmental policies. Important items related to environmental initiatives are deliberated by the Executive Sustainability Committee, established in 2017; it is chaired by the president and CEO of Hitachi, Ltd., and its members include top Hitachi executives. The environmental strategy officers from business units (BUs) and major Group companies ensure that the Hitachi Group Environmental Action Plan approved by the executive officer in charge of environmental concerns is implemented throughout the Group. Eco-Management Meetings, reorganized in 2017, promote long-term targets, set goals for the Environmental Action Plan, develop ways to achieve them, and endorse initiatives to be carried out by the Group as a whole. Outside Japan, we assign regional specialists to report on the progress of the Environmental Action Plan and share information on the latest environmental regulations while exchanging views on local environmental issues during meetings held once or twice a year in each region.

▶ Building Environmental Management Systems

We have established environmental management criteria to ensure efficient management of each business site's environmental load. There are approximately 200 business sites that meet these criteria, and these, together with the Sustainability Promotion Division, have developed and implemented the Hitachi Group Environmental Promotion Organization EMS (environmental management system) to promote the consistent implementation of environmental policies. At the same time, every business site meeting the aforementioned criteria for environmental management continues to maintain ISO 14001 certification. Certification is also being pursued at business sites that do not yet meet the criteria. In conjunction with the issuance of ISO 14001:2015, business sites that acquired certification prior to this version have been working to align their environmental management systems with the 2015 update. As of March 2018, approximately 82% of business sites have completed this task. The transition will be steadily promoted with an eye to meeting the 2018 deadline.

Status of ISO 14001 Certifications

(Hitachi Group, as of March 31, 2018)

	Total
Number of certified companies*1	248

*1 Including companies with at least one certified business site.

Americas 20
Europe 14
China 56
Rest of Asia 51
Japan 107
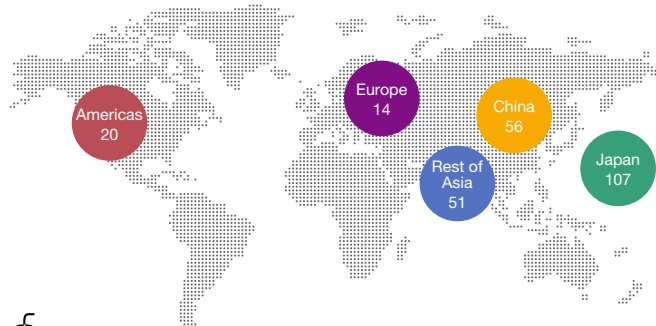
List of ISO 14001-Certified Companies

▶ Monitoring Environmental Performance Data

For effective environmental management, we collect data on the environmental performance of business operations using the Environmental Data Collection System. The system supports multiple languages and enables some 1,200 Hitachi business sites in over 60 countries to monitor and register environmental load data on items such as energy use, water use, and waste generation, as well as whether an item falls under relevant environmental laws and regulations. We also set up an international help desk to promote understanding of environmental performance 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 improve environmental practices.

At the approximately 200 Hitachi business sites that meet the environmental management criteria, we aggregate and analyze data on such key items as energy, waste materials, and water on a monthly basis so that the environmental management levels can be further increased.

Environmental Data Collection System

Business site Business site Business site ···· Approx. 1,200 sites (in over 60 countries)

Monitor and register (multiple languages)

Environmental Data Collection System (Eco-DS)

Help desk (multiple languages)

Aggregate and analyze

Sustainability Promotion Division

Administrative division of business unit and Group company
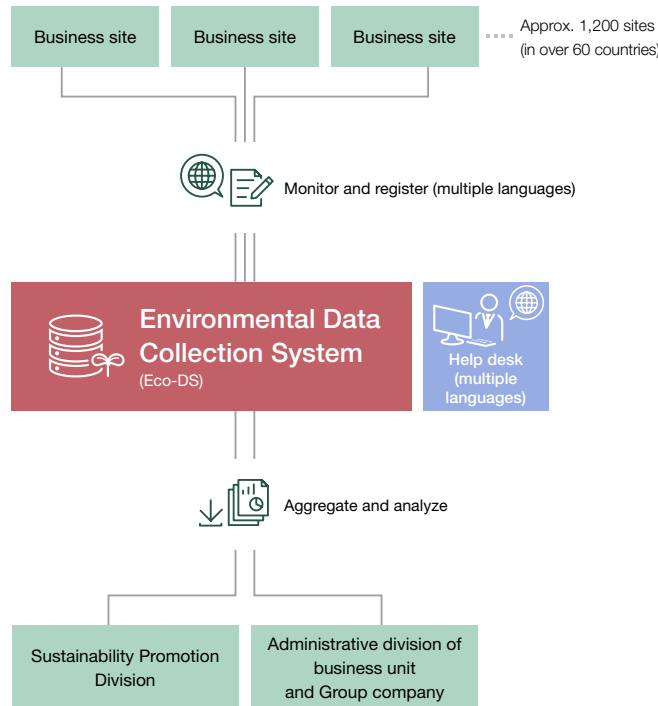
▶ Environmental Activity Evaluation System

We use our own evaluation system, GREEN 21, to improve the level and quality of our environmental activities. It divides the targets of the Environmental Action Plan into six categories and evaluates achievements. A perfect score for any category is 100 green points (GPs), and each item is assessed on a scale from 1 to 5.

Starting in fiscal 2016, activities reflecting an eagerness to stimulate environmental action have been taken into consideration as an additional scoring criterion. Our fiscal 2017 comprehensive evaluation was 369 GPs against the target of 360 GPs. For fiscal 2018, we will continue to promote environmental activities to achieve the target of 480 GPs.

Key Indicators

● Green Point (GP) Average: FY 2017 Targets and Results (Hitachi Group)

···· FY 2017 target: 360 GPs
▬ FY 2017 result: 369 GPs

Management 73 GPs
Products and Services 64 GPs
Global Warming Prevention 53 GPs
Resource Recycling and Management of Chemical Substances 64 GPs
Ecosystem Preservation 57 GPs
Collaboration with Stakeholders 58 GPs
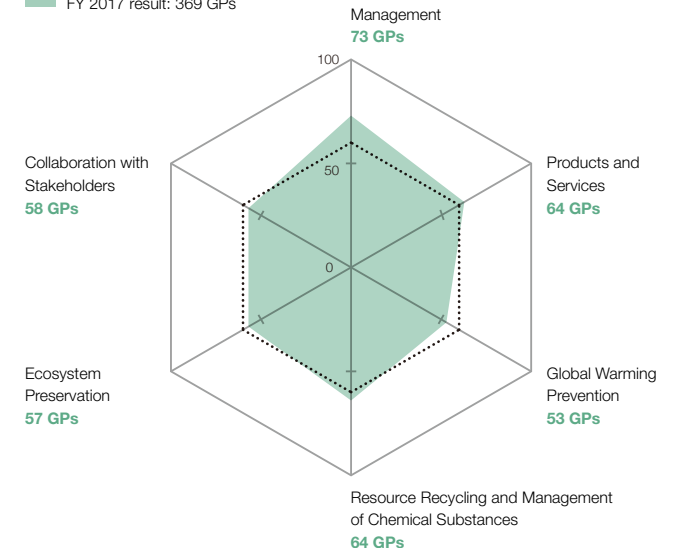
Developing Environmentally Conscious Products and Services

We conduct Environmentally Conscious Design Assessments for all products and services involving a design process to ensure environmentally conscious design and development. Thirty environment-related areas are assessed for their impact on climate change, resource depletion, and environmental pollution (ecosystem degradation) at each stage of the product life cycle with a view to reducing the environmental burden. To meet the IEC 62430[*1] criteria for environmentally conscious design, in addition to implementing these assessments, we are integrating environmentally conscious design and development into our existing management system, including by meeting environmental regulatory requirements and ascertaining the environment-related needs of our stakeholders. We conduct Life Cycle Assessments (LCAs) focusing on our main, priority products 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.

Creating Eco-Factories & Offices Select

To reduce the environmental burden of our business activities, 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 business activities.

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 w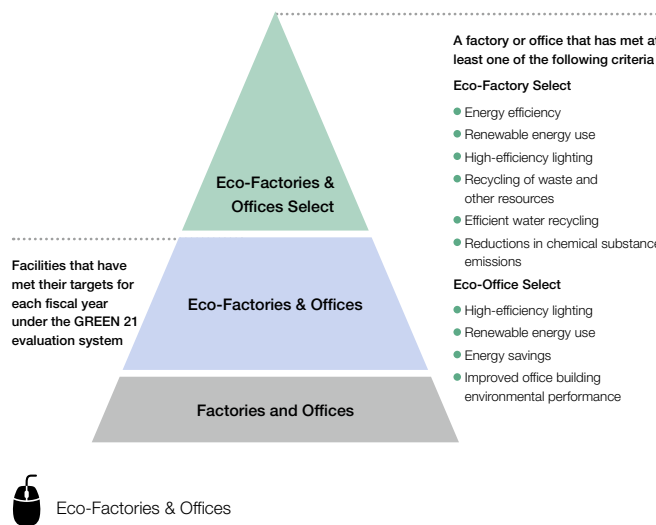ell. To maintain and raise the level of environmental awareness through Eco-Factories & Offices Select, certified factories and offices are re-evaluated every fiscal year to confirm that their performance continues to meet requirements. In fiscal 2017, 6 facilities were newly certified and 67 facilities had their certifications renewed. The total number of certified factories and offices was 73.

Eco-Factories & Offices Select Certification Criteria

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

Eco-Factories & Offices Select

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

Eco-Factories & Offices

Factories and Offices

Eco-Factories & Offices

Environmental Compliance

Environmental Compliance Response

Hitachi considers the environmental burden of all business activities and sets voluntary management criteria that are more stringent than regulatory requirements. We regularly monitor water quality, noise levels, and other conditions at each business site and work to minimize environmental risks. In addition, we share information on environmental laws and regulations, as well as examples of infringements, throughout the Group, and in the event we find a violation, we take every possible step to prevent a recurrence. We also conduct multifaceted internal environmental audits to ensure full compliance with environmental requirements throughout the Group and to strive to attain even higher standards.

Actions and Achievements

To enhance Group-wide compliance with environmental requirements globally, each business unit and Group company, as well as the Sustainability Promotion Division, conducts internal environmental audits, in addition to carrying out internal audits as set forth under ISO 14001. In fiscal 2017, the Sustainability Promotion Division, together with the Internal Audit Office, conducted internal audits at 34 business sites globally. BUs and Group companies conducted their own audits at 65 overseas business sites in accordance with their respective three-year (fiscal 2016 to 2018) internal environmental audit programs. 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 will comprehensively implement and enhance our compliance framework.

In fiscal 2017, we received a worldwide total of 13 notices

concerning water quality, air quality, or waste matter and complaints about noise or odors. Of these, 5 were complaints from nearby residents regarding noise, but they were all promptly addressed.

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

Global Notices and Complaints (Hitachi Group)

	Water quality	Air quality	Waste matter	Complaints	Other (petition, notification, etc.)
Fiscal 2017 cases	3	1	0	5	4

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 have been used. In case contamination is found, we will conduct cleaning and monitoring activities until decontamination has been completed.

Environmental Education Initiatives

Promoting Environmental Education

Promoting greater environmental awareness and understanding among our employees is essential to Hitachi's efforts to energize its environmental activities. Toward that end, we are advancing environmental education. Hitachi Group training is being implemented for all Group employees, from newly hired workers to working-level employees. They are provided with basic environmental education, as well as courses on environmental risks and compliance with environment-related laws and regulations.

Actions and Achievements

At Hitachi, we provide basic environmental management courses for employees working in air, water, and waste management, as well as training in recent amendments to laws and operational procedures. In fiscal 2017, we offered legal compliance education for internal environmental auditors and working-level employees; 123 people from 39 companies attended courses in Japan (September 2017), and 52 people from 31 companies attended courses in Beijing, China (September 2017), to deepen understanding of regulatory amendments.

With China's environmental regulatory requirements growing more stringent, an environmental management training program—attended by 44 people from 68 companies—was held in Shanghai, China, in March 2018 to reduce environmental risks and raise the knowledge of working-level employees.

In addition to Hitachi Group training, individual companies and units provide education tailored to their own business area. For general education, we offer Internet-based e-learning courses in Japanese, English, and Chinese to familiarize all employees with our Environmental Vision and long-term environmental targets called Hitachi Environmental Innovation 2050. To date, 143,694 employees worldwide have taken this course.

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

Environmental Load

Data on Environmental Load from Operations (Hitachi Group, FY 2017)

The data below shows the resource inputs and the environmental load for Hitachi Group operations in fiscal 2017.

Products shipped: 2,754 kt

INPUT — Total Input of Resources

Total Energy Input

(crude oil equivalent)

2.35 GL

- Solid fuel 6%
- Fuel oil 5%
- Gas 25%
- Electricity 64%

Raw Materials Input

3,797 kt

- Other materials 7%
- Plastics 4%
- Metals 89%

Total Water Input

38.54 million m³

- Tap water 19%
- Groundwater, etc. 36%
- Industrial water, river water 45%

Operations

Water recycling

23.57 million m³

OUTPUT — Total Output (Environmental Load)

Greenhouse Gas Emissions

4,715 kt-CO₂e*1

- Other GHG emissions 1%
- CO_2 emissions 99%

Total Volume of Waste and Valuables

1,356 kt

- Waste reduction 6%
- Landfill 16%
- Recycle 78%

Total Volume of Water Effluents Discharged

35.13 million m³

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

*1 CO₂e: CO₂ equivalent.

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) 2.35 GL

		FY 2016	FY 2017
Renewable energy	Electricity	2.9 GWh (29 TJ)	3.2 GWh (32 TJ)
Non-renewable energy	Electricity	5,903 GWh (57.4 PJ)	6,020 GWh (58.4 PJ)
	Gas — Natural gas	0.18 Gm^3 (8.1 PJ)	0.19 Gm^3 (8.6 PJ)
	Gas — LPG, LNG, etc.	241 kt (13.0 PJ)	269 kt (14.5 PJ)
	Fuel oil (heavy oil, kerosene, etc.)	149 ML (5.6 PJ)	117 ML (4.5 PJ)
	Solid fuel (coke)	173 Mt (5.2 PJ)	179 Mt (5.4 PJ)

Raw Materials Input

Materials: 3,797 kt

		FY 2016	FY 2017
Materials	Metals	2,710 kt	3,388 kt
	New materials	1,497 kt	1,571 kt
	Recycled materials, etc.	1,213 kt	1,817 kt
	Plastics	169 kt	151 kt
	New materials	167 kt	150 kt
	Recycled materials, etc.	2 kt	1 kt
	Other materials	314 kt	258 kt
	New materials	308 kt	250 kt
	Recycled materials, etc.	6 kt	8 kt
Chemicals	PRTR substances[1] handled	189 kt	205 kt
	Ozone-depleting substances handled	208 t	77 t
	Greenhouse gas substances handled	3,425 t	3,656 t

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

Total Water Input

Water use: 38.54 million m^3

		FY 2016	FY 2017
Water provided by municipality or other sources	Tap water	7.77 million m^3	7.40 million m^3
	Industrial water, river water	18.41 million m^3	17.46 million m^3
Groundwater		14.92 million m^3	13.56 million m^3
Rain water		0.03 million m^3	0.02 million m^3
Recycled water (recycled from the wastewater of other organizations)		0.21 million m^3	0.10 million m^3

▶ Total Output of Environmental Load

Environmental load output from Hitachi Group operations.

Greenhouse Gas Emissions

Greenhouse gases: 4,715 kt-CO_2e

		FY 2016	FY 2017
CO_2 emissions ⊘		4,577 kt-CO_2	**4,663 kt-CO_2**
Other GHGs	SF_6 (sulfur hexafluoride)	56 kt-CO_2e	**40 kt-CO_2e**
	PFCs (perfluorocarbons)	4 kt-CO_2e	**4 kt-CO_2e**
	HFCs (hydrofluorocarbons)	16 kt-CO_2e	**7 kt-CO_2e**
	N_2O, NF_3, CH_4 (dinitrogen monoxide, nitrogen trifluoride, methane)	1 kt-CO_2e	**1 kt-CO_2e**

Notes:
- The CO_2 electrical power conversion factor uses the 2005 emission coefficients for individual countries 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: 1,356 kt   Nonhazardous: 1,320 kt (hazardous[1]: 36 kt)

		FY 2016	FY 2017
Waste reduction		68 kt (0.4)	**83 kt (9.0)**
Recycling	Reuse	1 kt (0.4)	**1 kt (0.4)**
	Materials recycled	1,001 kt (21.5)	**1,038 kt (20.2)**
	Thermal recovery	12 kt (2.4)	**11 kt (1.4)**
Landfill		254 kt (2.0)	**223 kt (5.2)**
Chemicals	PRTR substances discharged or transferred	4.7 kt	**4.2 kt**
	SOx (sulfur oxides)	101 kNm³[2]	**107 kNm³[2]**
	NOx (nitrogen oxides)	488 kNm³	**469 kNm³**
	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: 35.13 million m³

		FY 2016	FY 2017
Public water		26.16 million m³	**23.12 million m³**
Sewerage		8.93 million m³	**8.62 million m³**
Underground infiltration, evaporation, etc.		3.68 million m³	**3.39 million m³**
Water quality	BOD (biochemical oxygen demand)	346 t	**392 t**
	COD (chemical oxygen demand)	531 t	**617 t**

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
2.12 Mt-CO_2e (1.8%)

Scope 2
Indirect emissions from production of electricity and heat purchased by the company 2.60 Mt-CO_2e (2.1%)

Total GHG Emissions
121.83 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)
106.78 Mt-CO_2e (87.6%)

Scope 3: Upstream
Other indirect emissions not covered by Scope 1 and 2
(Emissions by other entities related to the company's activities)
10.33 Mt-CO_2e (8.5%)

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

Scope 3
Upstream

1 Purchased goods and services
Suppliers, etc.
6.9%

2 Capital goods
Construction companies, etc.
1.1%

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%

5 Waste generated in operations
Waste treatment companies
0.1%

6 Business travel
Transportation companies, etc.
0.1%

7 Employee commuting
Transportation companies, etc.
0.0%

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

Scope 1
Direct emissions

Direct emissions from in-house fuel use and industrial processes
1.8%

Scope 2
Energy-related indirect emissions

Indirect emissions from production of electricity and heat purchased by the company
2.1%

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
87.3%

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	2.12 (1.8%)
Scope 2[*2]		
Energy-related indirect emissions	Indirect emissions from production of electricity and heat purchased by the company	2.60 (2.1%)
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	8.43 (6.9%)
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	1.31 (1.1%)
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	0.08 (0.1%)
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	106.33 (87.3%)
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	0.35 (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	0.06 (0.0%)
Total		121.83 (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 used to calculate emissions is based on the 2010 edition of *CO_2 Emissions from Fuel Combustion,* published by the International Energy Agency (IEA).

*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).
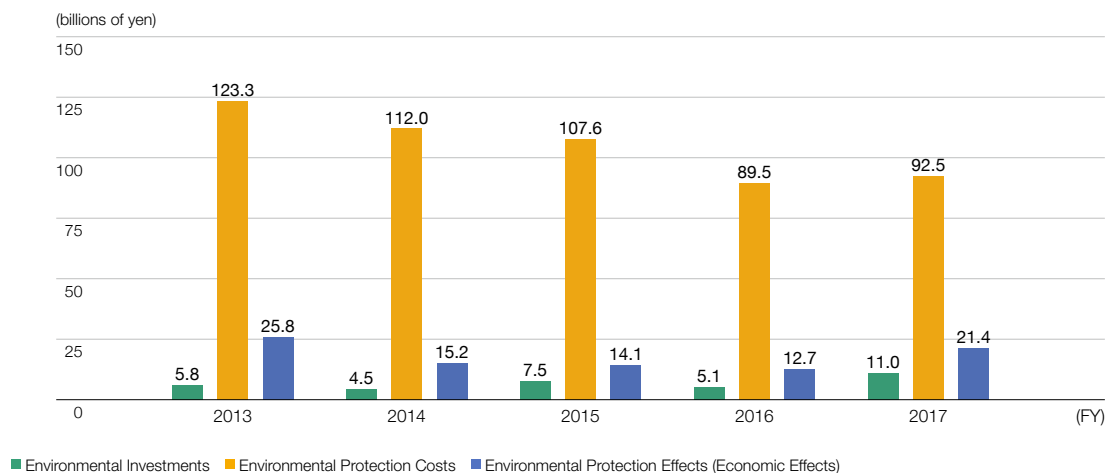
Environmental Accounting
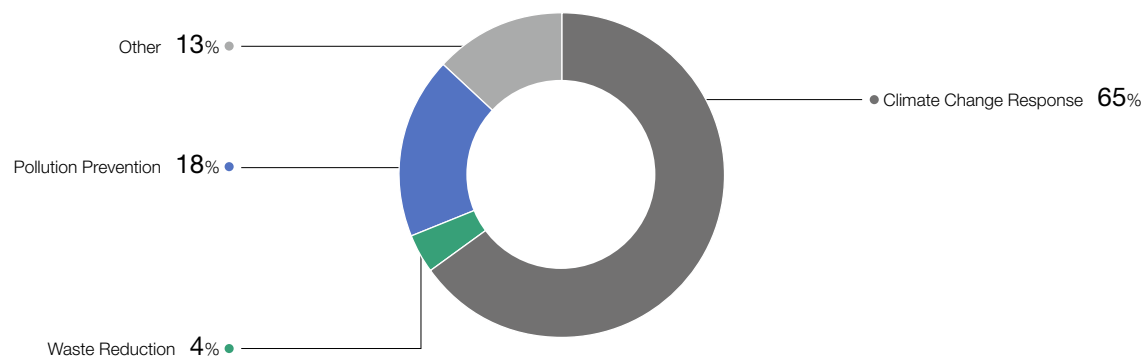
Overview of Environmental Accounting

Hitachi has adopted and made public a set of environmental accounting procedures conforming to the Japanese Ministry of the Environment's Environmental Accounting Guidelines 2005. We have used the results of these procedures 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 2017 Environmental Investments by Countermeasure (Hitachi Group)

Other **13**%

Pollution Prevention **18**%

Waste Reduction **4**%

● Climate Change Response **65**%

Environmental Investments

(billions of yen)

	Description	FY 2013	FY 2014	FY 2015	FY 2016	**FY 2017**
Total investment	Investment in energy-saving equipment and equipment that directly reduces environmental load	5.81	4.46	7.50	5.12	**10.99**

Environmental Protection Costs

(billions of yen)

Item	Description	FY 2013	FY 2014	FY 2015	FY 2016	**FY 2017**
Expenses						
Business area	Maintenance costs for equipment with low environmental load, depreciation, etc.[1]	38.63	26.90	24.22	19.19	**22.17**
Upstream/downstream	Green procurement expenses, recovery and recycling of products and packaging, recycling expenses	1.27	1.09	0.97	0.63	**0.72**
Administration	Labor costs for environmental management, implementation and maintenance of environmental management system	6.77	6.47	5.97	5.12	**5.69**
Research and development	R&D to reduce environmental burden caused by products and production processes, product design expenses	75.62	76.12	75.71	63.31	**62.55**
Social activities	Planting, beautification, and other environmental improvement expenses	0.51	0.36	0.45	1.21	**1.00**
Environmental remediation	Environmental mitigation costs, contributions, and charges	0.53	1.03	0.27	0.22	**0.33**
Total		123.33	111.97	107.59	89.51	**92.46**

[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 2017 Activities	FY 2013	FY 2014	FY 2015	FY 2016	**FY 2017**
Net income effects	Recovering value from waste by sorting and recycling	15.98	7.54	7.27	4.96	**6.90**
Reduced expenses effects	Installing high-efficiency equipment (lighting, power supply)	9.82	7.65	6.78	7.77	**14.54**
Total		25.80	15.19	14.05	12.72	**21.44**

[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 2017 Activities	FY 2013	FY 2014	FY 2015	FY 2016	**FY 2017**
Reduction in energy used during production	Installing LED lighting, upgrading air-conditioning equipment, etc.	70	68	59	51	**58**

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

Environmental Liability

We have appropriated 8.2 billion yen in expenses for the disposal of PCB-containing waste and 830 million yen to clean up contaminated soil as the amounts that we can reasonably project as of March 2018 as future environmental liabilities.

Promoting the Environmental Action Plan (Metrics and Targets)

Environmental Action Plan for 2018 (2016–2018)

Hitachi is pressing forward with activities in accordance with its Action Guidelines for Environmental Conservation 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. The Environmental Action Plan for 2018—formulated in fiscal 2016—stipulates detailed activities and targets to tackle by fiscal 2018.

Environmental Action Plan for 2018:
Results and Targets

For our performance under the Environmental Action Plan for 2018, marking fiscal 2017 as its second year, we missed targets for two items, but for every other category, we were able to reach our goals. We will continue to make improvements in each activity aimed for fiscal 2018—our final year—and achieve our targets.

The indicators used in the Environmental Action Plan for 2018 are the main ones in Hitachi's environmental activities overall, and our endeavors in these areas are introduced in the following pages.

Management

Items	Indicators	Fiscal 2017 targets	Fiscal 2017 results	Achievement level	Final fiscal year (2018) targets
Strengthen global environmental management	Voluntary implementation of environmental monitoring by business units and Group companies at overseas business sites (implementing sites/total targeted)	50%	83%	◆◆◆	80% or higher (cumulative total)
Raise the level of environmental activities	Green points (GPs) under the GREEN21-2018 environmental activity index	360 GPs	369 GPs	◆◆◆	480 GPs

Products and Services

Item	Indicator	Fiscal 2017 target	Fiscal 2017 result	Achievement level	Final fiscal year (2018) target
Improve environmental performance	Rate of reduction in CO_2 emissions from use of products and services (base: FY 2010)	35%	33%	◆◆	40%

Factories and Offices: Climate Change Response

Item	Indicator	Fiscal 2017 target	Fiscal 2017 result	Achievement level	Final fiscal year (2018) target
Reduce energy use	Reduction in energy use per unit (base: FY 2005)	16%	14%	◆◆	17%

Factories and Offices: Enhance Efficiency of Water Usage

Item	Indicator	Fiscal 2017 target	Fiscal 2017 result	Achievement level	Final fiscal year (2018) target
Enhance efficiency of water usage	Reduction in water use per unit (base: FY 2005)	25%	32%	◆◆◆	27%

Factories and Offices: Use Resources Efficiently

Item	Indicator	Fiscal 2017 target	Fiscal 2017 result	Achievement level	Final fiscal year (2018) target
Reduce waste generation	Reduction in waste and valuables generation per unit (base: FY 2005)	13%	15%	◆◆◆	14%

Factories and Offices: Manage Chemical Substances

Item	Indicator	Fiscal 2017 target	Fiscal 2017 result	Achievement level	Final fiscal year (2018) target
Reduce emissions of chemical substances	Reduction in atmospheric emissions of chemical substances per unit (base: FY 2006)	35%	37%	◆◆◆	36%

Ecosystem Preservation

Item	Indicator	Fiscal 2017 target	Fiscal 2017 result	Achievement level	Final fiscal year (2018) target
Contribute to ecosystem preservation	New ecosystem preservation activities implemented	150	301	◆◆◆	600

Partnership with Stakeholders

Item	Indicator	Fiscal 2017 target	Fiscal 2017 result	Achievement level	Final fiscal year (2018) target
Make social contributions through environmental activities	Activities implemented in such areas as environmental education, information exchange, ecosystem preservation through afforestation, etc., community contribution through cleanup projects, etc., campaigns to turn off lighting, and community energy-saving activities	1,600 (cumulative total)	1,720 (cumulative total)	◆◆◆	2,400 (cumulative total)

◆◆◆ : Achieved   ◆◆ : Partially achieved

The Hitachi Action Guidelines for Environmental Conservation

The Action Guidelines for Environmental Conservation were drawn up to show the direction of our business management initiatives for environmental protection as we set out to realize our Environmental Vision.

The Hitachi Action Guidelines for Environmental Conservation

Responding to Climate Change with Products and Services
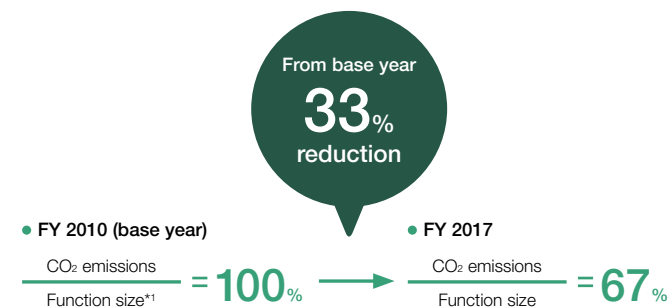
Improved Environmental Performance in Products and Services

Hitachi is improving the environmental performance of its products and services with the hope of contributing to the resolution of environmental challenges through the development and popularization of products and services with high environmental value. We strike a balance between improving functionality and reducing the environmental burden by using, as our index, the reduction rate per product and service function of CO_2 emissions during usage and of the volume of resources used during the life cycle. The group of products that demonstrate a high level of potential in solving environmental issues are the targets of a plan to achieve a 40% reduction in CO_2 emissions by fiscal 2018 (compared to fiscal 2010 products).

In fiscal 2017, we reduced CO_2 emissions by 33% against a target of 35% over the base year of fiscal 2010. The failure to reach the target is due to changes in the product lineup, as contributions made by products and services featuring high environmental performance were not fully reflected in the new lineup.

We will strive to reduce the rate of CO_2 emissions by expanding sales of high energy-saving products and services as well as by continuing with our efforts to promote environmentally conscious design during the development stage.

Key Indicators

● Reduction in CO_2 Emissions (Hitachi Group)

From base year
33% reduction

● **FY 2010 (base year)**

$$\frac{CO_2 \text{ emissions}}{\text{Function size}^{*1}} = 100\%$$

● **FY 2017**

$$\frac{CO_2 \text{ emissions}}{\text{Function size}} = 67\%$$

*1 Major functions of products correlated to CO_2 emissions.

Reducing CO₂ Emissions Throughout the Value Chain

Reducing CO₂ Emissions with Renewable Energy (Power Business Unit, Hitachi, Ltd.)

Hitachi has a lineup of 5 MW-, 2.5 MW-, and 2 MW-class wind turbines and has established a system that allows it to handle all processes from development to design, manufacturing, and maintenance of the turbines. Among all wind turbines that started operation in Japan in 2016, Hitachi had the largest share.[1] The company has received orders for a cumulative total of 325 turbines, of which 198 are currently in commercial operation.[2] The amount of CO_2 emissions reduced with the use of wind turbines delivered by Hitachi is 360 kt-CO_2/year.[3]

Hitachi's original down-wind system adopts a configuration with the rotor on the downwind side of the tower. This system enables turbines to switch to the free-yaw operation mode during storm blackout conditions, reducing the dangers posed by cross-winds. These turbines are thus suitable even for regions hit by frequent typhoons. Hitachi aims to contribute to creating a low-carbon society through superior wind power generation systems in Japan and other Asian regions, such as Taiwan and Southeast Asia.

In April 2018, Hitachi signed a contract for twenty-one 5.2 MW wind turbine systems (109.2 MW) in Taiwan. The work, to be done in collaboration with partner companies includes manufacturing, assembly, and installation of all equipment, as well as operation and maintenance for a period of five years.

Hitachi will contribute to expanding renewable energy by combining the high-quality maintenance technologies and expertise related to wind turbines that it has cultivated in the Japanese market.

[1] According to 2017 Hitachi, Ltd. findings.
[2] As of June 30, 2018.
[3] Amount for 198 wind turbines delivered by Hitachi. Comparable to that when covered by thermal or other types of power generation. The amount of CO_2 generated by wind power generation was calculated from the Comprehensive Assessment of Life Cycle CO_2 Emissions from Power Generation Technologies in Japan (July 2016), by the Central Research Institute of Electric Power Industry.

The Shin-Aoyama Kogen Wind Farm (photo by Toru Nagao, courtesy of Aoyama-Kogen Wind Farm Co.)

Wind Turbine

Oil-Free Scroll Compressor Directly Driven by an Amorphous Motor (Hitachi Industrial Equipment Systems Co., Ltd.)

Oil-free scroll compressors are known for their low-noise and low-vibration features. They do not use lubricating oil, which enables them to provide clean, oil-free compressed air. For these reasons they are widely used in the food and healthcare sectors, as well as in conducting scientific research and experiments.

Hitachi Industrial Equipment Systems uses an amorphous motor featuring top-level efficiency standards (equivalent to IE5[1]) in the air compressor body. And even higher energy savings are provided with the use of an inverter. The use of an inverter drive makes power supply frequency control unnecessary. This means that the discharge pressure can be maintained at a constant level even when the amount of air used changes, achieving constant pressure control with no more compression operation than is necessary. This results in high energy savings. By integrating the amorphous motor with an axial gap structure[2] in the air compressor as a single unit, the product volume ratio has been reduced by as much as 37% from earlier models (with the same capacity). Thus, it can be installed even in places with space restrictions, or installed independently. This makes greater energy savings possible by reducing pressure loss through such means as shortening the length of piping in a plant.

[1] The highest efficiency class in the motor energy efficiency guidelines formulated in IEC 60034-30-2 of the International Electrotechnical Commission (IEC).
[2] Motor with a thin structure using a disk-shaped rotor.

Oil-free scroll compressor directly driven by an amorphous motor.

Smart IoT Service Reduces CO_2 Emissions Throughout the Value Chain (Systems & Services Business, Hitachi, Ltd.)
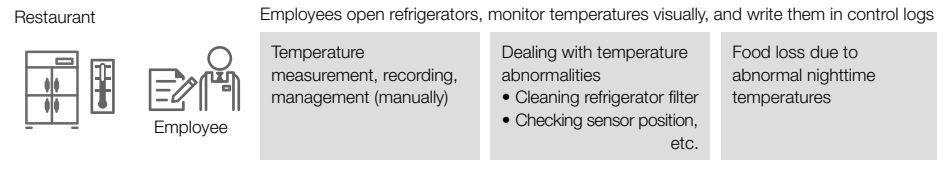
The Smart IoT Service is a solution provided by Hitachi's Lumada IoT platform. It automatically collects such environmental data as shop or building temperature, humidity, electric power, and CO_2 levels, in addition to data on the operational status of industrial machinery. The information is then managed and shared in the cloud. This service helps to reduce running costs and enables the immediate detection and response to abnormalities while also contributing to a reduction of the environmental burden. This solution is used in industries and businesses of all types and sizes, including in the manufacturing, transport, and restaurant sectors.

In restaurants, it monitors and measures temperatures in refrigerators and automatically transfers the data on a 24-hour basis using IoT and manages the data in the cloud. It can also help to shorten the time required to monitor temperature and reduce food loss while contributing to lowering CO_2 emissions during monitoring operation and over the life cycle of food. In calculations modeled on 1,200 shops in a major restaurant chain in Japan (with temperature monitoring at 12 locations in each restaurant), use of this service reduced CO_2 emissions by 47%.

Refrigerator Temperature Management for Restaurants

Previous temperature monitoring

Restaurant

Employees open refrigerators, monitor temperatures visually, and write them in control logs

Employee

Temperature measurement, recording, management (manually)

Dealing with temperature abnormalities
• Cleaning refrigerator filter
• Checking sensor position, etc.

Food loss due to abnormal nighttime temperatures

Temperature monitoring with Smart IoT Service

Restaurant

Sensors monitor temperatures 24 hours a day

Automatic transfer

Hitachi, Ltd. control center (cloud)

Automatic warning for abnormal nighttime temperatures

Warning notice (e-mail)

Manager

• Arrange an operator on site
• Instructions for measures
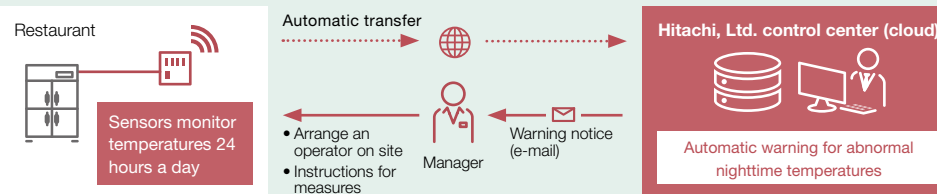
Addressing Our Carbon Footprint

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] In fiscal 2017, products verified and approved by the JEMAI CFP Program included the business phone Hitachi Multi Communication System S-integral, the enterprise storage Hitachi Virtual Storage Platform G1500, and the Hitachi IP-PBX NETTOWER CX-01 V2. In addition to visualizing CO_2 emissions, we quantified the rate of CO_2 emission reductions per function[2] from previous models, publishing the quantitative effect of their energy efficiency in our catalogs and on both in-house and external websites. We are also working with JEMAI to raise the recognition of the CFP label and to promote Approved CFP Products.

[1] Approved CFP Product: A product subjected to testing according to the CFP quantification 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.
[2] Specifically, the "life cycle GHG emissions per unit function size," calculated by dividing the "life cycle GHG emissions per sales unit" by "function size of applicable product" as specified by performance (or performance characteristic) and/or use period.

Products Authorized to Display the CFP Label in Fiscal 2017

Product	Business phone	Enterprise storage	IP-PBX
Series and model	Hitachi Multi Communication System S-integral	Hitachi Virtual Storage Platform G1500	Hitachi IP-PBX NETTOWER CX-01 V2
Product appearance			
Previous series and model	Hitachi Multi Communication System integral-F	Hitachi Virtual Storage Platform G1000	Hitachi IP-PBX NETTOWER CX-01
Rate of reduction in CO_2 emissions (compared to previous model)	−6.5% to −23%	−33%	−11% to −20%

Working with European Environmental Footprint Initiatives

Europe's Environmental Footprint initiatives develop methodologies for measuring the entire life cycle environmental burden of products and organizations in up to 16 areas. Pilot studies were launched in November 2013 to establish assessment methods in multiple product and organization fields.

Hitachi, drawing on experience with Japan's Carbon Footprint Communication Program and the knowledge gained from calculating and visualizing CO_2 emissions in the IT product life cycle, is participating in a European Environmental Footprint pilot study in the IT equipment field, for which it serves as the technical secretariat.

In fiscal 2017, we adjusted our methods of evaluating the environmental burden of IT products and submitted our final assessment methods to the European Commission. This was in response to a revision of the environmental footprint assessment rules by the European Commission and its provision of datasets to be used in calculating the environmental footprint.

Climate Change Measures in Factories and Offices

Promoting Climate Change Measures

We are promoting ways to use energy more efficiently and reduce CO_2 emissions during production and transportation, in both the manufacturing and nonmanufacturing divisions, with the aim of responding to climate change by building a low-carbon society.
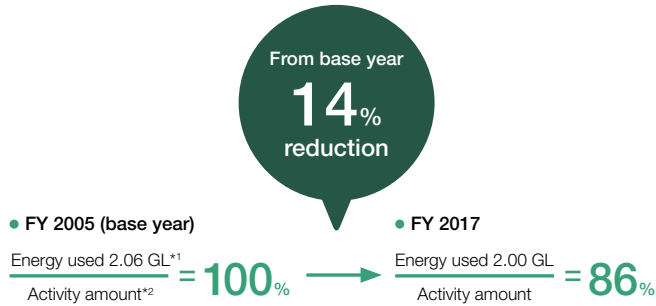
Actions and Achievements

We are advancing efforts to reduce energy use per unit—an indicator of energy efficiency—by systematically improving efficiency, such as by installing high-efficiency equipment and devices, from LED lighting to inverter air conditioners, at each facility. In our manufacturing divisions, we are advancing the visualization of energy use and production status and analyzing a broad array of data to promote further efficiencies in energy use.

In fiscal 2017, we achieved an improvement of 16% (from a base year of fiscal 2005), against a target of 14%. Part of the reason for not hitting the target was because of a decline in sales in energy intensive business divisions, which contracted the denominator in calculating energy use per unit. Because Hitachi's operations cover many different areas, reductions in energy use per unit are assessed using a value closely related to energy use (activity amount) at each business site as the denominator. As for total CO_2 emissions, we added the CO_2 emitted by power plants that sell electricity, although this is not included in the figures for energy use per unit.

In the future, we will continue to harness our expertise in control and IT technologies to actively pursue energy conservation measures at our factories and offices and promote the efficient use of energy around the world.

Key Indicators

● Reduction in Energy Use per Unit (Hitachi Group) ✓

From base year

14% reduction

● FY 2005 (base year)

$$\frac{\text{Energy used 2.06 GL}^{*1}}{\text{Activity amount}^{*2}} = 100\%$$

● FY 2017

$$\frac{\text{Energy used 2.00 GL}}{\text{Activity amount}} = 86\%$$

*1 Energy volume used both in and outside the organization (Scope 1 and 2).
*2 A value closely related to energy use at each business site (for example, production quantity, output, building floor space, and number of employees).

● CO₂ Emissions (Hitachi Group) ✓

(kt-CO₂/year)

| | Japan | Rest of Asia | China | Americas | Europe | Power plants*2 |
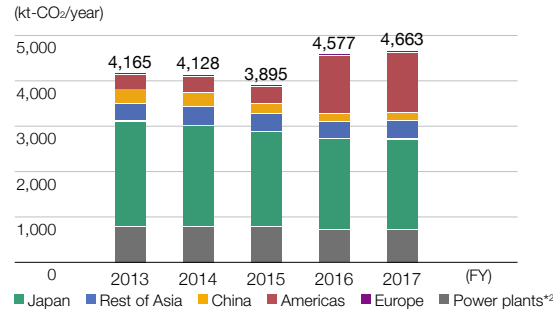
Breakdown by Region (kt-CO₂/year) ✓

	2013	2014	2015	2016	(FY) 2017
Europe	4	8	7	11	16
Americas	321	358	375	1,273*1	1,332*1
China	332	305	211	166	175
Rest of Asia	375	423	402	384	407
Japan	2,323	2,217	2,090	2,011	1,994
Power plants*2	810	817	810	732	739
Total	4,165	4,128	3,895	4,577	4,663

*1 Includes 958 kt-CO₂ (fiscal 2016) and 1,036 kt-CO₂ (fiscal 2017) 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 CO₂ electrical power conversion factor uses the 2005 emission coefficients for individual countries published by the International Energy Agency (IEA) in the 2010 edition of *CO₂ Emissions from Fuel Combustion*.
● Energy-related CO₂ emissions were 2,062 kt-CO₂ (Scope 1) and 2,601 kt-CO₂ (Scope 2).

Introducing Renewable Energy

We are promoting the use of solar, wind, and other forms of renewable energy. During fiscal 2017, Hitachi produced 3,168 MWh of renewable energy for its own use. Hitachi Computer Products (America) proactively uses renewable energy to power its factory, purchasing 9,525 MWh during fiscal 2017. In Japan, we contracted for 1,000 MWh/year of Green Power through Japan Natural Energy Co., Ltd. to provide power for offices, showrooms, and exhibitions.

Green Power logo for the Green Power Certification scheme.

Reducing Transportation Energy Consumption

Hitachi is working toward the reduction of energy output during transportation as well as at business sites, and we have established targets for the reduction of energy use per unit for each business unit and Group company. 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. CO₂ emissions from transportation inside Japan for the Hitachi Group in fiscal 2017 were 102.8 kt-CO₂. ✓ Hitachi-Omron Terminal Solutions, for example, is promoting reductions in CO₂ emissions through a modal shift in the transportation of automated teller machines, and as a result of these efforts it was designated by the Ministry of Land, Infrastructure, Transport, and Tourism as an Eco Rail Mark company.*1

*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 × distance per year.

🖱 About the Eco Rail Mark

Energy Savings in Eco-Factories & Offices

### Next-Generation Factory Using IoT (Omika Works, Hitachi, Ltd.)

The Hitachi, Ltd. Omika Works produces control systems used in electric power generation, railroads, waterworks, and other social infrastructure. It has installed solar panels (940 kW capacity) to promote renewable energy use and is working to level the electrical load by controlling the charging and discharging functions of storage batteries (4.2 MWh storage capacity). Smart meters have been installed (in about 900 locations) in an effort to conserve energy through the utilization of IoT. In these and other ways, the business site pursues higher production efficiency and reduced environmental impact, contributing to achieving a low-carbon society as a next-generation smart factory.

Energy efficiency during the production process is achieved with a progress and operation monitoring system that uses Radio Frequency Identification (RFID).[1] As a result, annual energy consumption for lighting and air conditioning in fiscal 2017 was 8 MWh lower than in fiscal 2012.

[1] Non-contact automatic identification technology that uses radio frequency to read information from tags or other card-shaped media with an embedded IC and antenna.

Omika Works

Storage battery

Smart meter

EV fast charging station

EMS

Solar panels
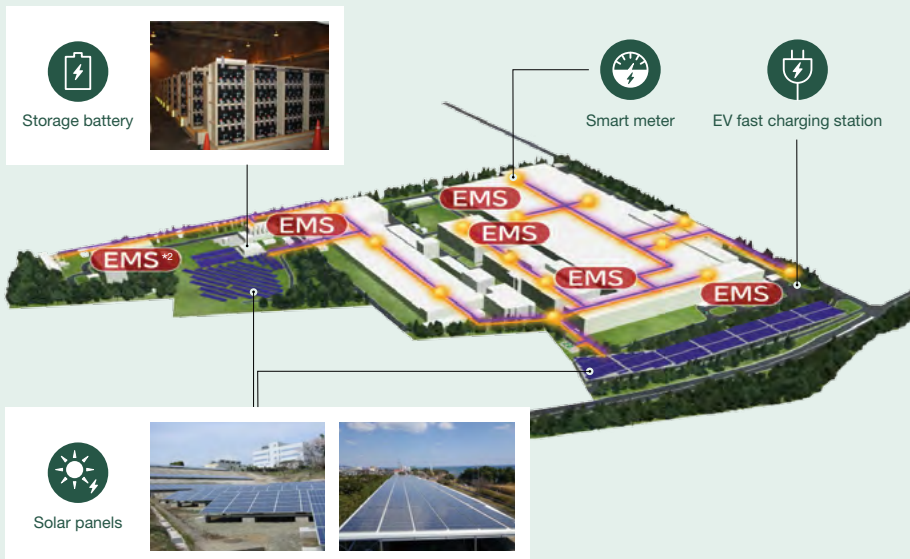
[2] EMS: Energy management system.

Offices That Balance Energy Efficiency and Comfort (Yokohama Office, Hitachi, Ltd.)

To create a work environment conducive to workstyle reforms, the Hitachi, Ltd. Yokohama Office is creating office spaces that balance energy efficiency and comfort. Room environments are monitored and analyzed with temperature and humidity sensors and other equipment to provide energy savings while maintaining comfort. Atria and light wells that let in natural light to create bright spaces and rooftop solar panels (500 kW) help to reduce energy use in the entire building.

At the Yokohama Office, air conditioning and electric equipment are managed with a building management system. This system measures and compiles energy consumed for each use, workplace temperature and humidity, air conditioning operating information, and CO_2 level data, which are then integrated and put in a visual format. Aggregating and displaying these data on a single screen makes it possible for monitoring personnel to respond quickly when a problem occurs. Energy use for air conditioning has been reduced 563 MWh annually by visualizing and analyzing correlations among data from each facility with this system.

Natural light enters through atrium spaces and light wells, producing bright, comfortable spaces.

Renewable energy from solar panels is used for some of the energy consumed in offices.

Reducing Transport Energy Consumption

A Modal Shift in Transporting ATMs (Hitachi-Omron Terminal Solutions, Corp.)

Hitachi-Omron Terminal Solutions is taking steps to reduce CO_2 emissions by implementing a modal shift from truck to rail transport for automated teller machines (ATMs).

Since ATMs are precision machines, they must be transported with care to prevent damage. Repeated tests were thus conducted, subjecting them to vibrations greater than those experienced during rail transport, to confirm that the machines would be unaffected. Complicated production plans for ATMs, which are high-mix and small-lot products, were made according to rail transport schedules. Transport pallets and stacking methods were also improved. Thanks to such efforts to achieve efficient transport, the company was designated by the Ministry of Land, Infrastructure, Transport, and Tourism as an Eco Rail Mark company. It is also actively using rail transport for products other than ATMs, including teller cash recyclers and cash deposit machines. As a result, CO_2 emissions were reduced by 82 t-CO_2 in fiscal 2017, compared to levels when only trucks were used as a mode of transport.

A rail container carrying ATMs heads out of the manufacturing facility to the train station for loading.

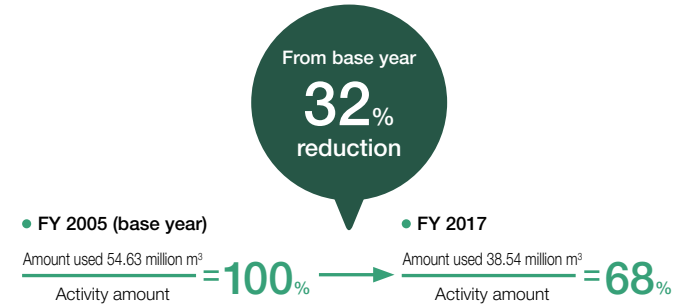## Enhancing Efficiency of Water Usage

Water Conservation

Hitachi is implementing Group-wide measures to reduce water usage through greater efficiency. For example, we are enhancing our level of water management by installing flow meters at more locations, introducing wastewater treatment devices to increase the use of recycled water, and upgrading water supply facilities at our business sites to prevent water leakage.
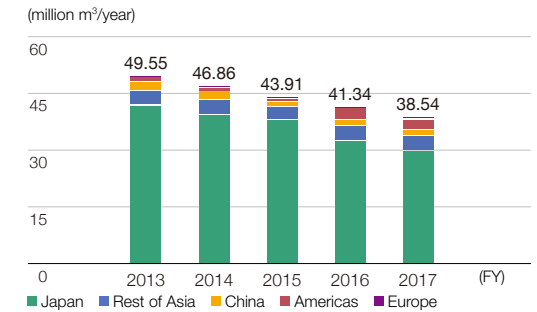
Actions and Achievements

In fiscal 2017, we set a target of a 25% reduction (over the base year of fiscal 2005) for water usage per unit at our 207 global sites and achieved a 32% reduction. The volume of water used declined by 16.09 million cubic meters, or 29%.

Key Indicators

● Reduction in Water Usage per Unit (Hitachi Group)

From base year
32% reduction

● FY 2005 (base year)

Amount used 54.63 million m³ / Activity amount = **100**%

● FY 2017

Amount used 38.54 million m³ / Activity amount = **68**%

● Water Usage (Hitachi Group)

(million m³/year)

	2013	2014	2015	2016	2017
	49.55	46.86	43.91	41.34	38.54

■ Japan ■ Rest of Asia ■ China ■ Americas ■ Europe

Breakdown by Region (million m³/year)

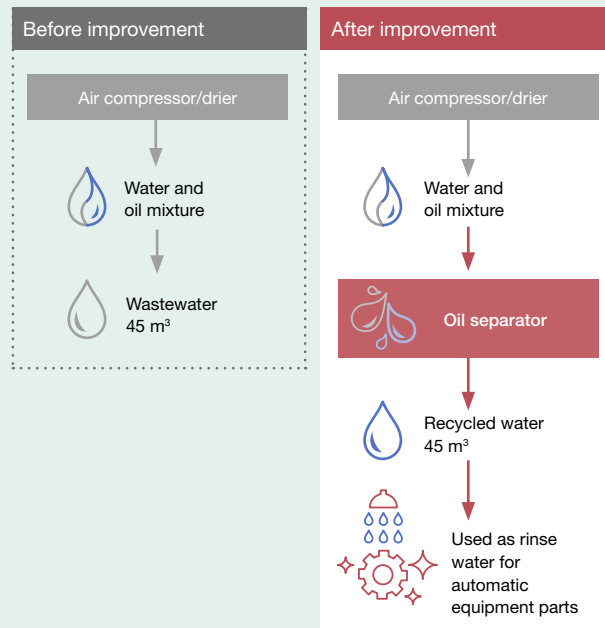|	2013	2014	2015	2016	2017 (FY)
Europe	0.02	0.02	0.01	0.02	0.04
Americas	1.20	0.98	0.89	3.09*1	2.78*1
China	2.50	2.32	1.22	1.51	1.51
Rest of Asia	3.65	3.85	3.56	4.00	4.04
Japan	42.18	39.69	38.23	32.72	30.17
Total	49.55	46.86	43.91	41.34	38.54

*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 and 1.91 million m³/year in fiscal 2017).

🗒️ Improving Water Use Efficiency

Reducing Water Intake by Reusing Compressor Wastewater (Dongguan Clarion Orient Electronics Co., Ltd.)

Dongguan Clarion Orient Electronics manufactures 4.5 million car navigation and car audio units per year. Air compressors and driers are used on production lines, and about 45 m^3 of wastewater with a small amount of oil had been released annually. The company reduced the amount of water intake by installing dedicated equipment that separates the water and oil and improving the process to reuse 45 m^3 of recycled water annually to rinse automatic equipment parts.

Improvements in the Rinsing Process

Before improvement	After improvement
Air compressor/drier	Air compressor/drier
↓	↓
Water and oil mixture	Water and oil mixture
↓	↓
Wastewater 45 m^3	Oil separator
	↓
	Recycled water 45 m^3
	↓
	Used as rinse water for automatic equipment parts

Reducing Intake Water by Reusing Welding Process Cooling Water (Hitachi Automotive Systems Czech, s.r.o.)

Hitachi Automotive Systems Czech produces automobile suspension systems. At its plant, the company built a recirculating water cooling system to reduce the amount of tap water intake. Water used to cool products on the seam welding line is collected in storage tanks. Cold water is then added to lower the temperature and used repeatedly to cool products. The company used this method to reduce its amount of intake water, reusing about 2,400 m^3 of cooling water per year.

Recirculating Water Cooling System

Cold water (tap water)

Reused cooling water (2,400 m^3/year)

Storage tank

Filter

Seam welding (product cooling)

Filter

Used cooling water

Cooling water
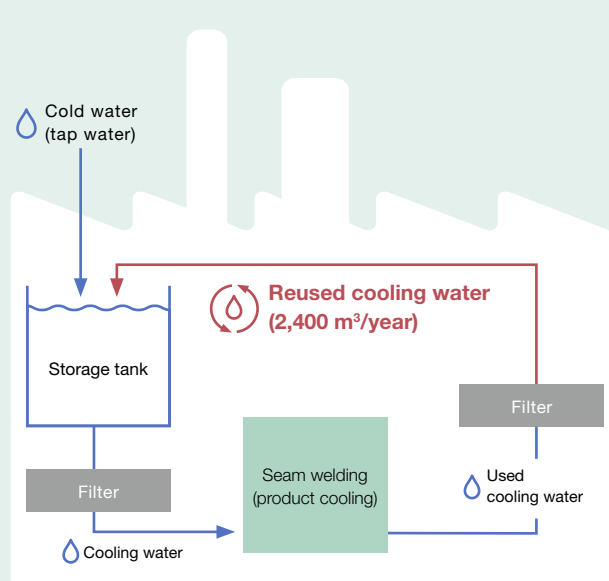
Improving Efficiency in the Use of Resources

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 2017, we recycled around 51 kt of the roughly 59 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.

We are also promoting the refurbishing[2] and remanufacturing[3] of collected used products. In the United States, when a customer replaces a large-capacity storage unit with a new model, part of the end-of-use device is cleaned and inspected and refurbished as a certified Hitachi product. After collecting automobile electric components from dealers and repair shops, we disassemble, check, clean and restore, reassemble, and inspect them, remanufacturing 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 are also promoting activities to collect and reuse as resources medical equipment and such industrial equipment as pumps, motors, distribution boards, transformers, refrigeration equipment, and air conditioners.

In an effort to use resources more efficiently, we are also promoting the use of recycled materials. In fiscal 2017, recycled materials accounted for 1,826 kt (48%) of our total raw materials input of 3,797 kt.

*1 Hitachi Appliances, Inc.; Sharp Corp.; Sony Corp.; Fujitsu General Ltd.; and Mitsubishi Electric Corp.
*2 Refurbishing: To service end-of-use products to a condition conforming to new-product standards.
*3 Remanufacturing: To restore end-of-use products through disassembly, washing, component replacement, and other work to a condition equivalent to new products.

Using IT to Manage Waste

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

Specifically, we visualize the generation and disposal of waste produced at our factories, offices, and contract operations and manage data on waste contractors so that we can keep accurate track of our progress in waste recycling. In fiscal 2017, entries were made to the system regarding waste generated at approximately 1,900 contract locations in Japan and at Hitachi manufacturing sites in 65 countries. This information is being put to use in measures to reduce waste volume and improve recycling rates. The system also manages information regarding hazardous waste materials. We have established a target of raising the e-manifest[1] system registration rate to at least 90% by fiscal 2015. This was achieved in fiscal 2014, and we continued with our efforts in fiscal 2017.

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

Waste Management System
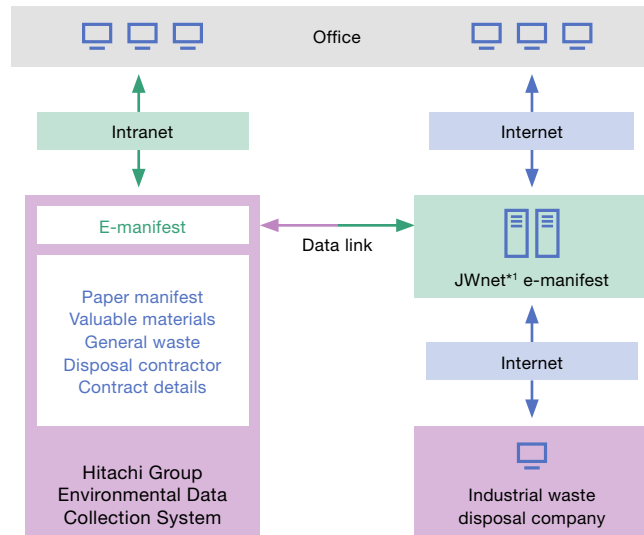
*1 JWnet: The Japan Waste Network is an electronic manifest system operated by the Japan Industrial Waste Information Center under the auspices of Japan's Ministry of the Environment.

Reducing Waste Volume

For fiscal 2017, we set a target of a 13% reduction (from a base year of fiscal 2005) for waste and valuables generated per unit, bettering this by achieving a 15% reduction.
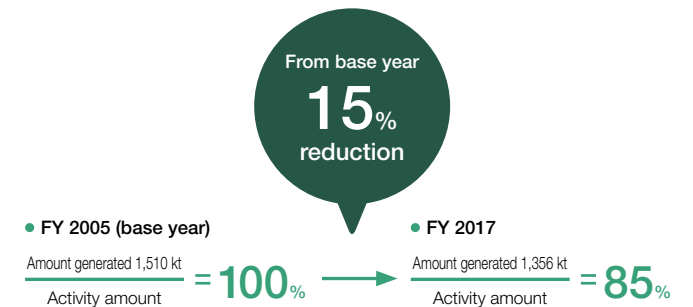
We endeavored to reduce waste through closed-loop recycling, whereby the byproducts and scrap from the production process are reused as resources by other business sites, and through the repeated use of packing and cushioning materials during transport. Under the Zero Emission initiative, which seeks to minimize landfill disposal, 97 business sites achieved their zero emission goal[1] as of fiscal 2017.

*1 Defined as a final disposal rate (landfill disposal/waste and valuables) of less than 0.5% in any given fiscal year.
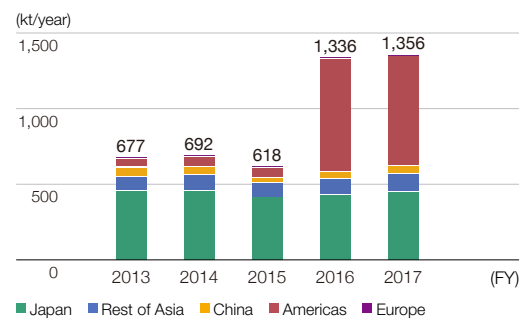
Zero Emission Sites
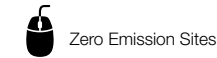
Key Indicators

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

From base year
15% reduction

● FY 2005 (base year)

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

● FY 2017

$$\frac{\text{Amount generated } 1{,}356 \text{ kt}}{\text{Activity amount}} = 85\%$$

● Waste and Valuables Generation (Hitachi Group)

Breakdown by Region (kt/year)

	2013	2014	2015	2016	(FY) 2017
Europe	1	2	1	2	4
Americas	56	67	63	744*1	725*1
China	62	54	36	48	55
Rest of Asia	93	106	98	107	117
Japan	465	463	420	435	455
Total	677	692	618	1,336	1,356

*1 Includes 675 kt (in both fiscal 2016 and 2017) of a materials company that became a
consolidated member of the Hitachi Group in fiscal 2016.

Efficient Use of Resources

Creating a Closed-Loop Recycling Scheme for Scrap Iron (Fukushima Works, Hitachi Automotive Systems High Cast, Ltd.)

Hitachi Automotive Systems High Cast manufactures casting parts for automotive engine and cruise control and steering systems. At the company's Fukushima Works, busheling (steel press punching waste) of various compositions and shapes, machining chips (long, spiral chips from castings or steel materials), and other scrap iron produced at the business sites of the Hitachi Automotive Systems Group are recycled. To do this, the company began investing in crushing and centrifugal separation equipment and changing existing processes in fiscal 2010 to build an efficient,

closed-loop recycling scheme.

With this scheme, the recycling rate in the Group improved from 44% to 83%, and in fiscal 2016 the amount of waste and discarded valuables was reduced by 25,000 metric tons annually in the Hitachi Automotive Systems Group overall. These long efforts have contributed greatly to the efficient use of resources and the building of a sustainable society, and were recognized with the Chairman's Award by the Japan Environmental Management Association for Industry in the FY 2017 Awards for Resources Recirculation Technologies and Systems.

**Closed-Loop Recycling Scheme for Scrap Iron**
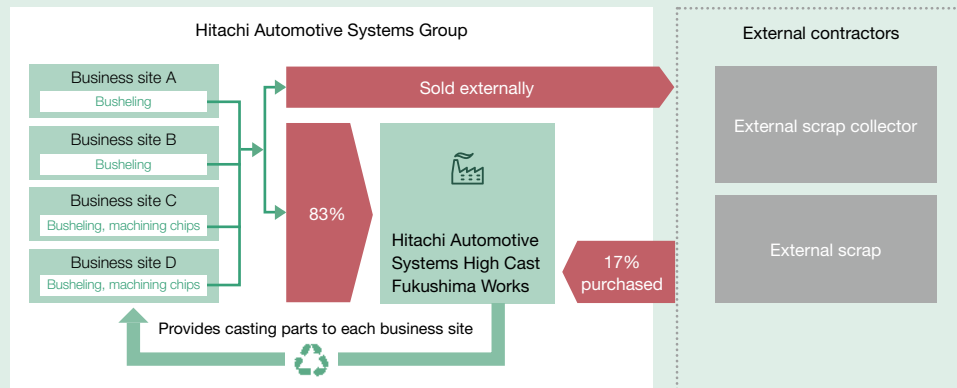
Remanufacturing Construction Machinery Parts (Hitachi Construction Machinery Co., Ltd.)

The Hitachi Construction Machinery Group manufactures and sells large hydraulic excavators, dump trucks, and other construction machinery. In 1998 it began a parts remanufacturing business to shorten the repair time for broken machinery units.

Construction machinery is utilized in harsh environments, and used units are thus often in poor condition. As a result, the downtime for repairs tends to be long. Used units are restored to function like new at remanufacturing plants and are sold with a functional

guarantee. This has made it possible to both shorten the time the machine is down and to provide high-functional units at reasonable prices. This business has spread to nine countries: Japan, China, India, Indonesia, Australia, the Netherlands, Zambia, Canada, and the United States. Because many used units were remanufactured instead of being discarded, the volume of waste generated by the Hitachi Construction Machinery Group decreased by 2,853 metric tons in fiscal 2017.

Comparison of General Repair and Parts Remanufacturing

*1 Units that have been removed as part of periodic replacement or due to a malfunction.
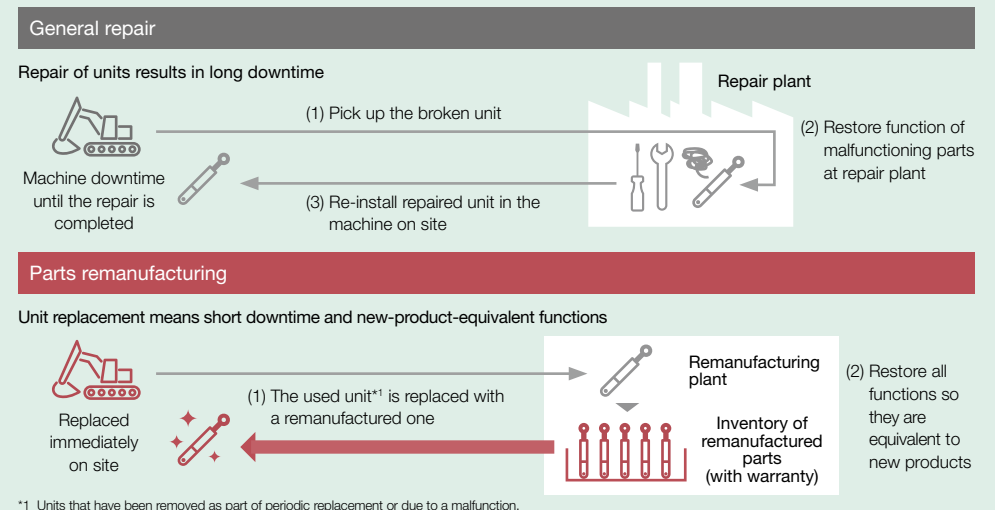
The Management and Reduction of Chemical Substances

Managing Chemical Substances

In fiscal 2005, Hitachi formulated the Regulations for Environmental CSR-Compliant Monozukuri to manage the chemical substances contained in its products at all stages—from development and design, procurement, and production to quality assurance and sales. With regard to chemical substances used in our business operations, we manage risk by assigning three ranks to the use of such substances: prohibition, reduction, and control. We also reduce risk by educating chemical substance handlers and managers on laws and regulations and on proper risk assessment.

Managing Chemical Substances in Our Products

To ensure compliance with Europe's REACH[1] and other regulations, we continuously revise the list of chemical substances in our products that are to be managed. In October 2015, we modified the list of Voluntarily Controlled Chemical Substances so that 18 prohibited substances (Level 1) and 27 controlled substances (Level 2) are now listed.

Four types of phthalic esters will be added to the list of restricted substances in Europe's RoHS directive[2] in July 2019. Hitachi, too, will designate them as prohibited substances in January 2019, and each Group company is now undertaking an examination of phthalic esters and advancing their substitution by alternative 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.

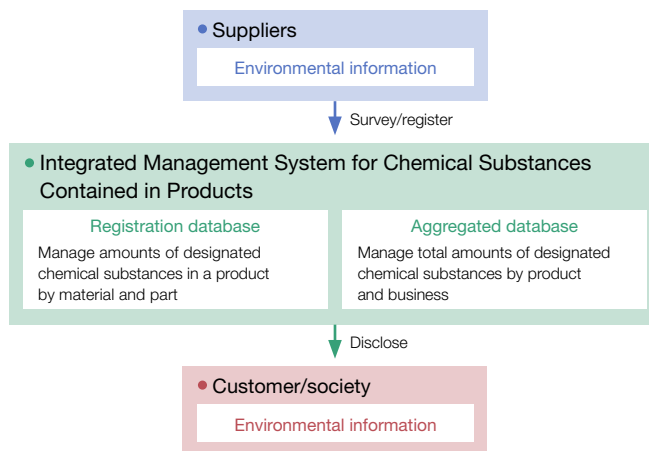🖱 Hitachi Group's Voluntarily Controlled Chemical Substances

▶ Working with the Supply Chain to Manage Chemical Substances

Working closely with suppliers and customers, we gather and make available information on chemical substances across the supply chain via the Integrated Management System for Chemical Substances Contained in Products, which has been in operation since fiscal 2005. As of March 31, 2018, chemical substance information for more than 1.37 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] Between December 2017 and February 2018, four briefings for suppliers were held on our system and chemSHERPA at Omika Works, Mito Works, and Hitachi IE Systems. The briefings were attended by approximately 600 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

- Suppliers
  - Environmental information

  ↓ Survey/register

- Integrated Management System for Chemical Substances Contained in Products
  - Registration database: Manage amounts of designated chemical substances in a product by material and part
  - Aggregated database: Manage total amounts of designated chemical substances by product and business

  ↓ Disclose

- Customer/society
  - Environmental information

Managing Chemical Substances in Our Business Operations

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 2017 to reduce emissions of volatile organic compounds (VOCs) included switching from VOC-containing paints 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 targets. Information on our efforts has been translated into English and Chinese and shared globally with Hitachi Group members. We also monitor and manage emissions of sulfur oxides (SOx) and nitrogen oxides (NOx),[1] which are required to be measured under the laws and regulations applicable at our business locations.
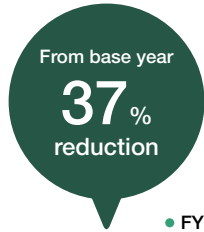
We comply with Japan's Pollutant Release and Transfer Register (PRTR) Law[2] through Group-wide monitoring of chemical substances released into the atmosphere or into public waters, removed outside our plants as waste, or discharged into sewage systems, reporting the results to local governments for 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.
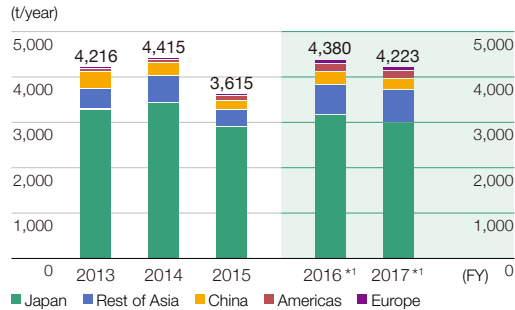*2 PRTR Law: Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof.

Key Indicators

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

From base year
37%
reduction

- FY 2006 (base year)

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

→

- FY 2017

$$\frac{\text{Emissions } 4,223 \text{ t}}{\text{Activity amount}} = 63\%$$

- Reducing Atmospheric Emissions of Chemical Substances (Hitachi Group)

(t/year)

	2013	2014	2015	2016*1	2017*1
Total	4,216	4,415	3,615	4,380	4,223

Japan ■ Rest of Asia ■ China ■ Americas ■ Europe ■ (FY)

Breakdown by Region (t/year)

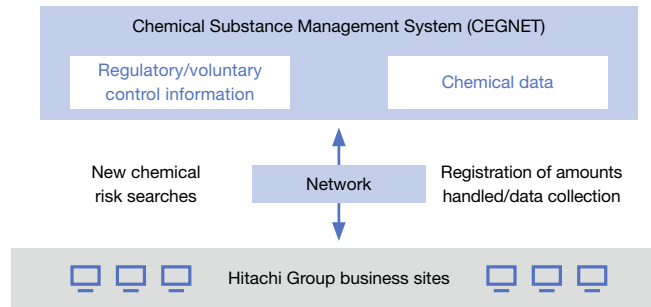|	2013	2014	2015	2016*1	(FY) 2017*1
Europe	8	12	9	57	58
Americas	76	66	113	187	178
China	372	281	199	291	246
Rest of Asia	447	604	373	662	731
Japan	3,313	3,452	2,921	3,183	3,010
Total	4,216	4,415	3,615	4,380	4,223

*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

Managing Storage of Equipment Containing PCBs

Equipment that uses polychlorinated biphenyls (PCBs) and PCB waste materials are systematically disposed of within the time limit established by the national government of Japan. The storage and disposal of PCBs within the Group are monitored every year to promote efficient disposal. In fiscal 2017, disposal was completed for PCB waste materials stored at 36 business sites.

Reducing Chemical Substances in Our Business Activities

Reducing VOC Emissions (Hitachi Construction Machinery Co., Ltd.)

The Hitachi Construction Machinery Group manufactures and sells construction machinery. In fiscal 2006 it began introducing high solid paint that emits fewer volatile organic compounds (VOCs) in painting its products, and by fiscal 2017 it had expanded its use to 10 major plants around the world. At the Tsuchiura Works, the company's mother plant, more than 60% of the paint used has been switched to high solids, while at Hitachi Construction Machinery (China) the high solid usage rate has more than doubled since fiscal 2016. In addition to switching to high solids, plants in Japan are pushing to reduce VOC emissions by introducing painting technologies matched to each product, such as powder coatings and single coats.

VOC regulations in China have become more stringent in recent years, so in addition to shifting to high solids, Hitachi Construction Machinery (China) has built a high-efficiency VOC processing facility and is implementing a plan for a 90% reduction in VOC emissions. The VOC processing facility was completed in December 2017 and underwent trial operations. Full-scale operations will begin in fiscal 2018 and should contribute to further reducing VOC emissions.

A high-efficiency VOC processing facility.

Preserving Ecosystems

Corporate Relationship with Ecosystems

Corporations depend on "ecosystem services" for supplies of natural materials like wood and minerals and adjustments in the quality and quantity of air, water, and soil. Hitachi seeks to contribute both through its business and social contribution activities to protect nature so we may continue to receive these ecosystem and biodiversity benefits into the future.

Through its business activities, Hitachi is promoting designs and production methods that reduce the impact on the ecosystem throughout the product life cycle. We also offer products and services that directly contribute to ecosystem preservation, such as water purification measures. We view chemical substance management as part of ecosystem preservation and continually ensure that it is carried out correctly. As for social contribution activities to protect nature, we encourage employee volunteer programs, such as tree planting, ecological surveys of rare plants and animals, and other programs to preserve 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. We are conducting deliberations and making estimates within the Group to quantify such impact in advancing these activities.

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 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 adding the pioneering activities of other corporations and organizations to the list of items that had already been subject to assessment since fiscal 2010.

It 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 2017 was 150, and 301 were actually launched.

Our goal for fiscal 2018 is to launch 600 new initiatives from the Ecosystem Preservation Activities Menu, and we will further promote ecosystem preservation activities on a Group-wide basis.

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

Hitachi IT Eco Experimental Village Preserves Ecosystems Through Collaborative Creation (Systems & Services Business, Hitachi, Ltd.)

The Systems & Services Business of Hitachi, Ltd. opened the Hitachi IT Eco Experimental Village in the city of Hadano, Kanagawa Prefecture, Japan, in April 2011. Since that time it has been conducting activities to preserve *satoyama* landscapes and ecosystems. With the cooperation of local residents, volunteer organizations, the local government, schools, research institutions, and others, it has been collecting environmental information with sensors and other IT devices and visualizing the data to analyze and provide empirical evidence to show how IT can contribute to ecosystem preservation.

These preservation activities, coordinated with many stakeholders, were among the twelfth group of certified partnership programs selected in March 2018 by the Japan Committee for the United Nations Decade on Biodiversity (UNDB-J).

The aim of these and other activities of the Social Innovation Business is to help communities resolve issues through collaborative creation and leave the blessings of the *satoyama* landscape to future generations.

The Hitachi IT Eco Experimental Village was certified as a project recommended by the Japan Committee for the UNDB-J.

IT devices and creatures observed during an experiment, from left, the agricultural IoT system e-kakashi, a new bird-and-animal repelling solution, and a Japanese squirrel.

A field trip to observe living organisms.

Desert Greening with the Dual Aims of Restoring Forests and Revitalizing Communities (Hitachi Construction Machinery Co., Ltd.)

Hitachi Construction Machinery (Shanghai) and Hitachi Construction Machinery (China) have partnered with the nonprofit Green Network since 2004 to plant trees in the Horqin Desert in China's Inner Mongolia Autonomous Region. With the start of the second 10-year plan in 2015, suppliers and dealers have also joined these efforts, which have so far resulted in the greening of 330,000 m^2 of the Horqin Desert. These activities contribute not only to protecting against wind and sand but also to CO_2 absorption, resource recycling, and biodiversity. This reforestation initiative also contributes to community employment by having much of the greening work done by local people.

The Hitachi Construction Machinery Group has been recognized for the content and continuity of its reforestation activities, receiving commendations in both China and Japan. In fiscal 2017 it was conferred the Judges' Honorable Mention Award in the Sixth Contest for Corporate Activities on Biodiversity, supported by Japan's Ministry of the Environment and Ministry of Agriculture, Forestry, and Fisheries. The initiative was also certified as a partnership program by the Japan Committee for the United Nations Decade on Biodiversity (UNDB-J).

A certificate of Judges' Honorable Mention Award at the Sixth Contest for Corporate Activities on Biodiversity.

The reforestation initiative was certified as a project recommended by the Japan Committee for the UNDB-J.

Supplying water with a bucket relay.

AA+ Rank Acquired in the JHEP Certification System of the Ecosystem Conservation Society-Japan (Hitachi High-Technologies Corporation)

Hitachi High-Tech Science, a subsidiary of Hitachi High-Technologies, is making ongoing efforts in the approximately 44,000 m^2 Woodlands of the Hitachi High-Tech Science surrounding the research and development facility of its Oyama Works to create a broadleaf forest with native plant species, restoring fields of Japanese silver grass where a variety of native wild grasses grow, and eradicating nonnative species.

These efforts to preserve and restore biodiversity in the Woodlands of the Hitachi High-Tech Science obtained the second highest ranking of AA+ in the JHEP Certification System[1] of the Ecosystem Conservation Society-Japan.

[1] JHEP Certification System: A certification system in which biodiversity values before and after a project are compared, and the difference assessed and ranked.

Woodlands of the Hitachi High-Tech Science.

Performance Data   128

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 2015	FY 2016	FY 2017
Revenue	10,034.3	9,162.2	**9,368.6**
Adjusted operating income	634.8	587.3	**638.6**
EBIT*1	531.0	475.1	**644.2**
Income from continuing operations, before income taxes	517.0	469.0	**638.6**
Net income attributable to Hitachi, Ltd. stockholders	172.1	231.2	**362.9**
Capital investment (completion basis)	528.5	377.5	**374.9**
R&D expenditure	333.7	323.9	**332.9**

*1 EBIT: Income from continuing operations before income tax, less interest income, plus interest charges.

Recognition of Social Responsibility

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Realizing Sustainable, Innovative Management					
Ratio of R&D expenditure to revenue (%)	3.7	3.4	3.3	3.5	**3.6**
Patent application ratio outside Japan (%)	59	59	59	57	**56**

Scope of Data

Hitachi, Ltd. and consolidated subsidiaries (including variable interest entities).
Number of companies: FY 2013: 948; FY 2014: 996; FY 2015: 1,057; FY 2016: 865; FY 2017 880.

Corporate Governance ⊘

	Total	Gender		Nationality	
		Male	Female	Japanese	Non-Japanese
Number of directors*1	**12***2	**10**	**2**	**8**	**4**
Number of executive officers*1	**35**	**35**	**0**	**34**	**1**
Number of executive officers and corporate officers*1	**78**	**76**	**2**	**73**	**5**
(% of total)			**(2.6%)**		**(6.4%)**

*1 As of June 2018.

*2 Including eight independent outside directors (four Japanese and four non-Japanese).

Labor Practices

		FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Achieving a Fair and Equitable Work Environment						
Number of employees[1]		33,500	31,375	37,353	35,631	**34,925**
	Male	28,273	26,428	31,536	29,921	**29,220**
	Female	5,227	4,947	5,817	5,710	**5,705**
Average age (years)[1]		40.7	41.0	41.2	41.4	**41.7**
	Male	41.3	41.6	41.7	42.0	**42.3**
	Female	37.6	38.0	38.4	38.6	**39.0**
Average service (years)[1]		18.3	18.4	18.4	18.6	**18.8**
	Male	19.0	19.0	19.0	19.2	**19.4**
	Female	15.0	15.4	15.6	15.7	**16.0**
Turnover ratio (%)[1][2] ✔		1.4	1.4	1.3	1.5	**1.5**
Promoting Diversity and Inclusion						
Ratio of female employees (%)[1]		16.6	16.3	16.5	16.8	**17.2**
Global ratio (number) of female managers[3] ✔		5.6	6.0	6.4	6.3	**6.4**
		(3,415)	(3,670)	(3,727)	(3,365)	**(3,459)**
Ratio (number) of female managers[4] ✔		3.8	3.7	4.0	4.1	**4.2**
		(418)	(434)	(474)	(509)	**(577)**
	General manager or above	2.7	2.8	3.2	3.3	**3.2**
		(77)	(87)	(104)	(113)	**(128)**
	Section chief	4.3	4.1	4.3	4.4	**4.6**
		(341)	(347)	(370)	(396)	**(449)**
Ratio of new female graduates hired (%)[5]		19.4	21.7	22.8	26.3	**26.6**
	Technical	14.7	18.3	17.3	20.8	**17.2**
	Administrative	43.4	41.0	45.5	42.1	**53.8**
Employment ratio of people with disabilities (%)[6] ✔		2.02	2.03	2.08	2.11	**2.15**
Number of employees taking maternity/ paternity leave[1]	Female	539	508	524	664	**724**
	Male	238	236	307	352	**426**
Number of employees using shorter working hours for child care[1]	Female	683	663	668	822	**887**
	Male	5	4	3	2	**2**
Number of employees taking nursing-care leave[1]	Female	8	8	8	7	**7**
	Male	12	9	9	8	**14**
Number of employees using shorter working hours for nursing care[1]	Female	4	7	9	9	**12**
	Male	2	3	3	3	**3**
Paid leave[1]	Average number of days	15.5	15.4	15.6	16.3	**17.2**
	Ratio (%)	64.7	64.3	65.3	68.1	**72.0**
Average overtime hours/month[1]		13.5	12.2	11.9	12.8	**10.9**
Promoting Occupational Health and Safety[7]						
Number of fatal accidents[1]		1	1	2	1	**0**
Occupational accident rate[1] ✔		0.10	0.09	0.07	0.18	**0.17**
Occupational accident rate[8] ✔		0.14	0.27	0.22	0.18	**0.25**
A Strategy for Growing Together with Our Global Human Capital						
Number of non-Japanese employees[9]		340	446	509	638	**708**
Number of young employees participating in training outside Japan[10]		747	720	674	382	**378**

Scope of Data

Environment

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Reducing the Environmental Burden of Our Business Operations					
Rate of reduction in CO_2 emissions from use of products and services (base: FY 2010)*1 (%)	—	—	—	35	**33**
CO_2 emissions from factories and offices (kt-CO_2) ✓	4,165	4,128	3,895	4,577*2	**4,663*2**
Water use (million m^3)	49.55	46.86	43.91	41.34*2	**38.54*2**
Waste and valuables generation (kt)	677	692	618	1,336*2	**1,356*2**
Atmospheric emissions of chemical substances (t)	4,216	4,415	3,615	4,380*2*3	**4,223*2*3**

Scope of Data

Fair Operating Practices ✓

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Engaging in Responsible Procurement					
Number of audits by external auditing organizations	16	20	20	20	**18**

Community Involvement and Development

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Promoting Sustainable Community Involvement and Development					
Funding for social contribution activities (million yen)[1]	1,806	1,218	889	527	**948**
Funding for social contribution activities (million yen)[2]	3,076	2,327	2,057	1,953	**2,195**

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.

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 nine years in a row, starting with fiscal 2009, the Dow Jones Sustainability World Index (DJSI World),[2] a leading global sustainability investment index, has listed Hitachi, Ltd. as a component stock. In fiscal 2017, the company was also included as a component of the Euronext Vigeo Eiris World 120 Index.[3]

Three Group companies (Hitachi Chemical, Hitachi Metals, Hitachi Construction Machinery, and Hitachi High-Technologies) were selected for the FTSE4Good Index Series.[4] Hitachi Metals and Hitachi High-Technologies were chosen for the Morningstar SRI Index,[5] reflecting the respect they command in the market. Hitachi Chemical was also selected for the MSCI ACWI ESG Leaders Index.[6]

[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] Morningstar SRI Index: An ESG index for Japanese stocks developed by Morningstar Japan K.K. with an NPO, the Center for Public Resources Development.
[6] 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 2017

Institution	Index	Companies selected
RobecoSAM	Dow Jones Sustainability World Index	Hitachi, Ltd.
	Dow Jones Sustainability Asia Pacific Index	Hitachi, Ltd. Hitachi Chemical Co., 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.
Morningstar	MS-SRI	Hitachi, Ltd. Hitachi High-Technologies Corporation

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Dow Jones
Sustainability Indices
In Collaboration with RobecoSAM

EURONEXT
vigeo eiris
INDICES WORLD 120

Nadeshiko Brand Designation

On March 22, 2018, Nadeshiko Brand 2018 (for fiscal 2017) was publicly announced. Hitachi, Ltd. was among the companies selected. This marks the fifth consecutive year the company has received this honor in recognition of its management strategy promoting diversity and for promoting innovation by drawing on its diverse human capital.

Since fiscal 2012, the Ministry of Economy, Trade, and Industry (METI) and the Tokyo Stock Exchange (TSE) have jointly selected, on an industry basis, enterprises that are considered outstanding in terms of encouraging women to play active roles in the workplace from among the approximately 3,500 companies listed on the TSE. Laureates are selected by industry based on assessment of female advancements in the workplace as well as return of equity. Hitachi, Ltd. was one of 48 enterprises this round of selections.

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, Clarion Co., Ltd., Hitachi Urban Investment, Ltd., Hitachi Systems Ltd., Hitachi Solutions, Ltd., Hitachi SC, Ltd., Hitachi Solutions East Japan, Ltd., Hitachi INS Software, 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: Clarion Co., Ltd. (class 3); Hitachi Systems Ltd. (class 3); Hitachi Solutions, Ltd. (class 3); Hitachi Chemical Co., Ltd. (class 2); Hitachi High-Technologies Corporation (class 3); Hitachi Solutions East Japan, Ltd. (class 2); and Hitachi Technical Communications Co., Ltd. (class 3).

Independent Assurance

To enhance the reliability of the data disclosed in the *Hitachi Sustainability Report 2018*, 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 ⊘ for the period from April 1, 2017 to March 31, 2018 (the "Indicators") included in its Hitachi Sustainability Report 2018 (the "Report") for the fiscal year ended March 31, 2018, except for the 'Employment of people with disabilities' and the 'Employment ratio of people with disabilities', whose figures as of June 2018 are the subject of this assurance engagement.

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 Automotive Systems, Ltd.'s Sawa Works and Hitachi Elevator (China)'s Guangzhou 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 4, 2018