

**Hitachi Group  
Sustainability Report 2015**  
FY 2014 Results



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## Introduction

### How to Use This Report

Use the category tabs, navigation icons, and link buttons to go directly to different sections of this report.

#### Category Tabs

Go to the beginning of the corresponding section

The screenshot shows the top navigation area of the report. On the left, there is a header for 'Hitachi Group Sustainability Report 2015' with navigation icons: a left arrow, the page number '03', a right arrow, and an upward arrow labeled 'Contents'. To the right, there is a list of sections with their page ranges and titles: '06-24 > The Hitachi Group and Sustainability', '25-45 > Innovation from 2015 to the Future', '46-63 > Foundation for Promoting CSR Management', '64-184 > Our Ongoing CSR Activities', and '185-195 > Performance Data & Assurance'. Below this list are three category tabs: 'Environment', 'Social', and 'Governance'.

#### Navigation Icons

- Click to go back one page
- Click to go forward one page
- Click to show table of contents

#### Link Buttons

- Click to go to corresponding website
- Click to go to corresponding page

### Editorial Policy

#### Basic Concept

The *Hitachi Group Sustainability Report 2015* presents basic policies, promotion systems, measures, and key performance indicators on our activities in keeping with related reporting guidelines. The report is a tool with which we engage with our stakeholders through honest and transparent disclosures of information regarding fiscal 2014 activities and Hitachi's stance in addressing social and environmental issues that are vital to the sustainability of corporate management and society.

#### What This Report Covers (Scope of Reporting)

Period	The main period covered is fiscal 2014 (April 1, 2014, to March 31, 2015)
Companies	Hitachi, Ltd., and 995 consolidated subsidiaries (including variable interest entities): total 996 companies
Scope of Data	Financial data: Hitachi, Ltd., and 995 consolidated subsidiaries (including variable interest entities): total 996 companies and 261 equity-method affiliates
	Social data: Scope of data indicated under each item
	Environmental data: Hitachi, Ltd., and 995 consolidated subsidiaries (including variable interest entities): total 996 companies. However, for environmental performance data associated with Hitachi's business operations, Hitachi Group companies 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	July 2015

\* The data for each fiscal year are the results according to the scope of data in that fiscal year.

\* The base fiscal year data have been revised to match the scope of data for fiscal 2014.

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

### Key Guidelines Referred to in Preparing This Report

- GRI Sustainability Reporting Guidelines (G4), Global Reporting Initiative
- Environmental Reporting Guidelines (2012 version), Ministry of the Environment, Japan
- Environmental Reporting Guidelines 2001—With Focus on Stakeholders, Ministry of Economy, Trade, and Industry, Japan

### Disclosure of Financial and Non-Financial Information

Hitachi, Ltd., 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. The *Annual Report* mainly presents financial information, while the *Hitachi Group Sustainability Report* mainly presents non-financial information and clarifies how sustainability issues relate to financial activities. The latest information is available on the Hitachi Group's website.

### Non-Financial Information Reports



Hitachi Group Sustainability Report 2015



**WEB** CSR (Corporate Social Responsibility)  
<http://www.hitachi.com/csr/>



**WEB** Environmental Activities  
<http://www.hitachi.com/environment/>



**WEB** Global Community Relations and Activities (Social Contribution Activities)  
<http://www.hitachi.com/csr/sc/>

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

### Financial Information Reports




Annual Report 2015  
(2015 edition scheduled for publication in August 2015)



**WEB** Investor Relations  
<http://www.hitachi.com/IR-e/>

\* Information about Hitachi Ltd. is also disclosed in the *Annual Securities Report* and the *Report on the 146th Business Term*.

### Third-Party Assurance and Verification

To enhance the credibility of this report, we commissioned third-party environmental, governance, and social performance assessments in fiscal 2014. KPMG AZSA Sustainability Co., Ltd. has provided assurance on a set of major governance and social performance indicators in accordance with the International Standard on Assurance Engagement (ISAE) 3000 and the Practical Guidelines for the Assurance of Sustainability Information of the Japanese Association of Assurance Organizations for Sustainability Information. Bureau Veritas Japan Co., Ltd. verified our environmental performance. Performance figures that have been assured/verified are indicated by  in the report.

### Report Media

This report is a combination of the *Hitachi Group Corporate Sustainability Report* and the *Hitachi Group Environmental Sustainability Report*, which we published until fiscal 2010. The *Hitachi Group Sustainability Report 2015*, which emphasizes comprehensiveness and searchability of non-financial information, with special attention being given to management transparency, is published as a PDF file (A4, 197 pages), while the easy-to-read *Hitachi Group Sustainability Report 2015 Highlights* is issued in booklet form (B5, 18 pages). The booklet, in particular, contains valuable information regarding areas of social interest and for understanding Hitachi's sustainability management strategies.

Our CSR website enables us to communicate to a broad range of stakeholders, making available the gist of our sustainability management strategies, reports of our activities in fiscal 2014, details of our major achievements and guidelines for the media, and news releases and other latest information.

#### Booklet

##### *Hitachi Group Sustainability Report Highlights*



An easy-to-read communication tool targeting customers, including members of the general public, and our transaction partners

#### Contents

- Hitachi's Business and Society
- Messages from Management
- Examples of Social Innovation Business
- CSR and Social Contribution Activities

#### Website

##### CSR (Corporate Social Responsibility)



A tool for communicating the gist of Hitachi's sustainability activities to a broad range of stakeholders

#### Contents

- Hitachi's Business and Society
- Messages from Management, Executive Officers, and Regional Representatives
- Examples of Social Innovation Business
- Basic Sustainability Policy
- Gist of Sustainability Strategy
- Overview of Actions and Key Results in Fiscal 2014
- Latest CSR News
- Cross-Reference Guidelines

#### PDF

##### *Hitachi Group Sustainability Report*



Annual report targeting specialists and those highly interested in CSR emphasizing comprehensiveness and searchability of non-financial information

#### Contents

- Hitachi's Business and Society
- Messages from Management, Executive Officers, and Regional Representatives
- Details of Social Innovation Business
- Basic Sustainability Policy
- Details of Sustainability Strategy
- Reports of Activities in Fiscal 2014
- Financial and Non-Financial Performance Indicators

### Initiatives That We Participate In

We have been a member of the World Business Council for Sustainable Development (WBCSD) since 1995. We have been a member of the United Nations Global Compact since February 2009.





## The Hitachi Group and **SUSTAINABILITY**

**Hitachi is committed to building a secure and comfortable world for all of its current stakeholders and future generations, working together with these stakeholders to innovate and contribute to society. With our talented team and proven experience in global markets, we aim to continuously inspire the world. At the same time, to achieve sustainable growth as a global company, we are accelerating creation of economic and social value.**

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## Hitachi and Society

**Creating value to fulfill our Corporate Credo—contributing to society through the development of superior, original technology and products—has underpinned our business development for more than a century. Hitachi's R&D program focuses on products and services that help to resolve social issues.**

### Hitachi Group Profile

#### Corporate Profile (as of March 31, 2015)

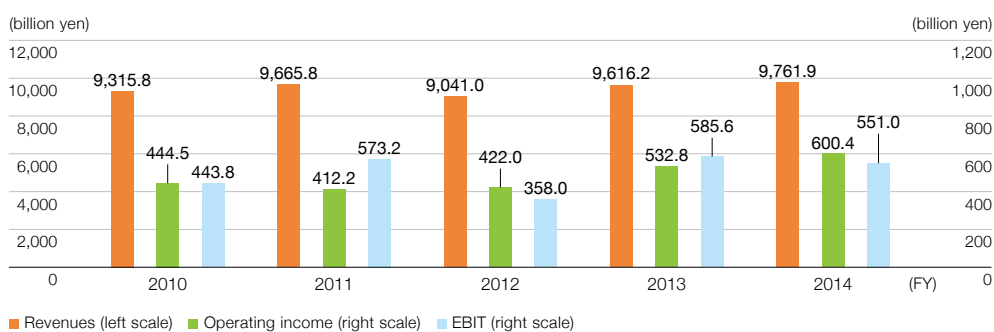
Corporate name	Hitachi, Ltd.
Incorporated	February 1, 1920 (founded in 1910)
Head office	1-6-6 Marunouchi, Chiyoda-ku, Tokyo 100-8280, Japan
Representative	Toshiaki Higashihara Representative Executive Officer, President & COO
Capital	458.79 billion yen
Number of employees	31,375 (unconsolidated basis) 333,150 (consolidated basis)
Number of consolidated subsidiaries (including variable interest entities)	995 (Japan: 274, outside of Japan: 721)
Number of equity-method affiliates	261

#### Consolidated Financial Highlights for Fiscal 2014, Based on US GAAP

Revenues	9,761.9 billion yen (up 2%, year on year)
Operating income	600.4 billion yen (up 12%)
EBIT*1	551.0 billion yen (down 6%)
Capital expenditure	374.3 billion yen (down 4%)
R&D expenditure	335.5 billion yen (down 5%)
Total assets	12,395.3 billion yen
Net assets	4,274.3 billion yen
Overseas production as percentage of total revenue	26%

\*1 EBIT: Defined income before income tax less interest income changes

#### Revenues, Operating Income, and EBIT





### Revenues and Ratio by Region

(Consolidated for fiscal 2014, based on US GAAP)

#### Asia

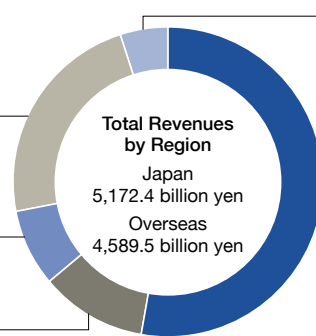
2,216.6 billion yen (23%)  
Number of Companies: 384  
Number of Employees: 96,995

#### Europe

844.7 billion yen (8%)  
Number of Companies: 160  
Number of Employees: 11,759

#### North America

1,060.4 billion yen (11%)  
Number of Companies: 96  
Number of Employees: 20,135



#### Other Areas

467.5 billion yen (5%)  
Number of Companies: 81  
Number of Employees: 11,052

#### Japan

5,172.4 billion yen (53%)  
Number of Companies: 275\*1  
Number of Employees: 193,209

\*1 Including Hitachi, Ltd. and 274 consolidated subsidiaries in Japan.

### Revenues and Ratio by Segment

(Consolidated for fiscal 2014, based on US GAAP)

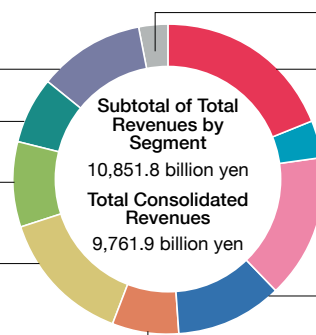
**Other (Logistics and Other Services)**  
1,210.7 billion yen (11%)

**Smart Life & Ecofriendly Systems**  
780.1 billion yen (7%)

**Automotive Systems**  
936.9 billion yen (9%)

**High Functional Materials & Components**  
1,504.5 billion yen (14%)

**Construction Machinery**  
779.9 billion yen (7%)



#### Financial Services

355.5 billion yen (3%)

#### Information & Telecommunication Systems

2,032.1 billion yen (19%)

#### Power Systems

472.6 billion yen (4%)

#### Social Infrastructure & Industrial Systems

1,646.8 billion yen (15%)

#### Electronic Systems & Equipment

1,132.3 billion yen (11%)

## Key Business Segments for Social Contributions

Creating value to fulfill our Corporate Credo—contributing to society through the development of superior, original technology and products—has underpinned our business development for more than a century.

The issues humanity faces are becoming global in nature: environmental problems like climate change and ecosystem degradation, as well as energy, water, resource, and food shortages, urban population growth, and the graying of societies. To solve these social issues, as a global corporate citizen, we create both economic and social value for a sustainable society.

### Information & Telecommunication Systems

Our expertise, gained through work in a broad range of areas, enables IT services tailored to diverse needs—from consulting to systems integration, operations, and maintenance. We conduct business operations in regions including North America, Europe, Asia, and Africa.

Locations of our business operations: **140** countries and regions

To contribute solutions to issues facing society and our customers, we provide IT solutions worldwide, particularly storage solutions supporting data utilization.

#### Main Products and Services

Systems Integration, Consulting, Cloud Services, Servers, Storage, Software, Telecommunications & Networks, ATMs

#### Principal Affiliated Companies (as of March 31, 2015)

Hitachi Information & Telecommunication Engineering, Ltd., Hitachi-Omron Terminal Solutions, Corp., Hitachi Computer Products (America), Inc., Hitachi Computer Products (Europe) S.A.S., Hitachi Financial Equipment System (Shen Zhen) Co., Ltd., Hitachi Solutions, Ltd., Hitachi Systems, Ltd., Hitachi Consulting Corporation, Hitachi Data Systems Corporation, Hitachi Information & Telecommunication Systems Global Holding Corporation



Hitachi Virtual Storage Platform G1000. (Hitachi, Ltd.)

#### Sales

2,032.1 billion yen

#### Operating income

116.2 billion yen

#### EBIT

93.6 billion yen



Wind Power Generation System (Hitachi, Ltd.)  
Wind Power Kamisu 1st Offshore Wind Farm, Wind Power Ibaraki, Co., Ltd.

Sales	472.6 billion yen
Operating income	-6.1 billion yen
EBIT	-2.8 billion yen



Class 800 high-speed train cars are ready for use in the Intercity Rail Service. (UK) (Hitachi, Ltd.)

Sales	1,646.8 billion yen
Operating income	84.7 billion yen
EBIT	101.5 billion yen



Hitachi Medical's MRI System.

Sales	1,132.3 billion yen
Operating income	69.4 billion yen
EBIT	59.9 billion yen

## Power Systems

Our highly efficient and reliable nuclear power generation equipment, as well as our wind, solar, and other renewable energy power generation solutions, help to bring about a low-carbon society. We conduct business operations in regions including North America, Europe, and Asia.

Share of installed wind power generation capacity in Japan: **34%**<sup>\*1</sup>

In 2014, we had the greatest installed capacity for domestic wind power generation systems. To contribute to a low-carbon society, we are improving our product efficiency and developing offshore wind farms.

\*1 Source: FTI Intelligence, March 2015

### • Main Products and Services

Thermal, Nuclear and Renewable Energy Power Generation Systems, Transmission & Distribution Systems

### • Principal Affiliated Companies (as of March 31, 2015)

Hitachi-GE Nuclear Energy, Ltd., Hitachi Power Solutions Co., Ltd., Horizon Nuclear Power Limited, MITSUBISHI HITACHI POWER SYSTEMS, LTD.

## Social Infrastructure & Industrial Systems

Our rail system, elevators and escalators, water treatment systems, and industrial equipment and energy-saving solutions reduce the environmental burden. Business operations are focused on industrial equipment and plants in the Asia region, rail systems in the United Kingdom, and elevators in China.

Ultrafast elevator speed: **1,200** m/min (72 km/h)

In 2016, Hitachi is scheduled to deliver the world's fastest elevators, traveling 1,200 meters per minute (72 kilometers per hour), for the CTF Finance Centre, 530 meters tall, under construction in Guangzhou, China.

### • Main Products and Services

Industrial Machinery and Plants, Elevators, Escalators, Railway Systems

### • Principal Affiliated Companies (as of March 31, 2015)

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 Rail Europe, Ltd., Mitsubishi-Hitachi Metals Machinery, Inc.

## Electronic Systems & Equipment

Hitachi provides semiconductor manufacturing equipment that supports the Information Age, broadcasting and wireless communications systems, medical care and testing systems, and electric power tools. We conduct business operations in regions including North America, Europe, Asia, and Africa.

MRI scanners shipped: **6,850**

As of the end of March 2015, Hitachi Medical had shipped MRI medical scanners to 85 countries.

Through development of these scanners and other medical equipment, Hitachi contributes to improving people's healthcare.

### • Main Products and Services

Semiconductor Manufacturing Equipment, Test and Measurement Equipment, Advanced Industrial Products, Medical Electronics Equipment, Power Tools

### • Principal Affiliated Companies (as of March 31, 2015)

Hitachi High-Technologies Corporation, Hitachi Koki Co., Ltd., Hitachi Kokusai Electric Inc., Hitachi Medical Corporation



Hitachi Construction Machinery's ultralarge hydraulic excavator and dump truck for use in mining.

Sales	779.9 billion yen
Operating income	54.7 billion yen
EBIT	55.6 billion yen



Hitachi Chemical's anisotropic conductive film.

Sales	1,504.5 billion yen
Operating income	123.0 billion yen
EBIT	129.2 billion yen



Hitachi Automotive Systems's inverter.

Sales	936.9 billion yen
Operating income	56.1 billion yen
EBIT	34.9 billion yen

### Construction Machinery

Our technological expertise helps us to develop solutions in civil engineering and construction, building demolition, mining, and construction machinery sales, service, and maintenance. We conduct business operations in regions including North America, Europe, Asia, and Africa.

Overseas sales ratio: **74%**

This is the fiscal 2014 overseas sales ratio for construction machinery. Our excavators, wheel loaders, and dump trucks are used at construction sites and mines around the world.

- Main Products and Services

Hydraulic Excavators, Wheel Loaders, Mining Machinery

- Principal Affiliated Companies (as of March 31, 2015)

Hitachi Construction Machinery Co., Ltd.

### High Functional Materials & Components

This business segment produces high functional materials and components for IT, home appliances, and cars, including semiconductor and display materials, circuit boards and related materials, synthetic resin car parts, storage devices, advanced special metals, magnetic materials and parts, advanced molded components, and cable materials. We conduct business operations in regions including Asia, North America, and Europe.

World share of anisotropic conductive film for LCDs (Hitachi estimation): ca. **60%**

Hitachi Chemical's Anisotropic Conductive Films for Displays, the world's most widely used material for connecting LCD panels to the semiconductor chips that drive the liquid crystal elements, have contributed to the development of high-quality displays for smartphones and tablet computers.

- Main Products and Services

Semiconductor and Display Related Materials, Circuit Boards and Materials, Automotive Parts (Molded Plastics, etc.), Energy Storage Devices, Specialty Steels, Magnetic Materials and Components, Wires and Cables

- Principal Affiliated Companies (as of March 31, 2015)

Hitachi Chemical Company, Ltd., Hitachi Metals, Ltd.

### Automotive Systems

We supply cutting-edge automotive equipment and systems globally, including systems for engine management, electric powertrain, drive control, and car information. We conduct business operations in regions including the Americas, Europe, China, and Asia.

Fiscal 2013 ratio of automotive electronics products: **45%**

Hitachi Automotive Systems aims for high levels of safety and fuel efficiency in developing electronics products. The electronics products share in fiscal 2013 placed Hitachi at the equivalent of third place among the top 10 global suppliers.

- Main Products and Services

Engine Management Systems, Electric Powertrain Systems, Drive Control Systems, Car Information Systems

- Principal Affiliated Companies (as of March 31, 2015)

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



Room Air Conditioner "Stainless-Clean Shirokuma-kun."

Sales	780.1 billion yen
Operating income	27.9 billion yen
EBIT	32.1 billion yen

### Smart Life & Ecofriendly Systems

Our air-conditioning systems, home appliances, LED lighting, solar power systems, and other environmental business devices help to increase energy efficiency and reduce the environmental burden. We conduct business operations in regions including China, Asia, and Europe.

#### Grand Prize winners: 3 kinds of products

Three Hitachi Appliances products won fiscal 2014 Energy Conservation Grand Prizes for excellent energy conservation equipment: room air conditioners, LED lighting units, and home heat-pump water heaters. The latter two won the prize for the second year straight.

- Main Products and Services

Air-Conditioning Equipment, Room Air Conditioners, Refrigerators, Washing Machines

- Principal Affiliated Companies (as of March 31, 2015)

Hitachi Appliances, Inc., Hitachi Consumer Marketing, Inc.



Hitachi Transport System's Metropolitan East Distribution Center and a large truck.

Sales	1,210.7 billion yen
Operating income	40.4 billion yen
EBIT	51.3 billion yen

### Others (Logistics and Other Services)

Hitachi is also active in logistics, including systems logistics, freight, inventory management, and packaging for shipping, as well as in optical drives and such fields as real estate. We conduct business operations in regions including North America, Europe, and Asia.

#### Eco-car ownership rate: 77.8%

In Japan, Hitachi Transport System has a rising eco-car ownership rate, including hybrid, natural gas, electric, and LPG vehicles, as well as nationally certified, low-emission gas and biofuel vehicles.

- Main Products and Services

Logistics, Optical Disk Drives, Property Management

- Principal Affiliated Companies (as of March 31, 2015)

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



Hitachi Capital's Hitachi Corporate Card.

Sales	355.5 billion yen
Operating income	38.0 billion yen
EBIT	36.2 billion yen

### Financial Services

We offer solutions integrating diverse functions including leasing, loan and rental services, card services and securitization, payment and collections, nonlife insurance, trust, and outsourcing services. Business operations are focused on the five key areas of Japan, Europe, the Americas, China, and ASEAN.

#### Power generated in renewable projects: 220% growth

Hitachi Capital finances and operates wind and solar power plants, providing Hitachi's combined strengths to find solutions that promote renewable energy use. Our goal is to boost power generated from renewable energy from 160 MW in fiscal 2012 to 350 MW in fiscal 2015.

- Main Products and Services

Leasing, Loan guarantees

- Principal Affiliated Companies (as of March 31, 2015)

Hitachi Capital Corporation

For all above segments, Hitachi America, Ltd., Hitachi Asia Ltd., Hitachi (China), Ltd., Hitachi Europe Ltd., and Hitachi India Pvt. Ltd. are the Hitachi Group's regional headquarters for the Americas, Asia, China, Europe, and India, respectively, and they sell the Hitachi Group's products.

## Hitachi's Approach

**As a global company, we share our stakeholders' values and pursue sustainable growth by integrating management strategies and CSR. We align our CSR activities with our Mid-term Management Plan to realize the Hitachi Group Vision, creating both social and economic value.**

### Trends in Society and Hitachi Group Identity

Society is today undergoing great changes and faces a range of challenges, from environmental issues and natural resource and energy constraints to poverty, inequality in education, diseases, and population concentration in cities. Hitachi's Corporate Credo is to contribute to society through the development of superior, original technology and products. We created our Group Vision in May 2013, at the start of the 2015 Mid-term Management Plan, with the aims of delivering innovations that help to answer society's challenges and of building a safe, secure, comfortable, and fair society.

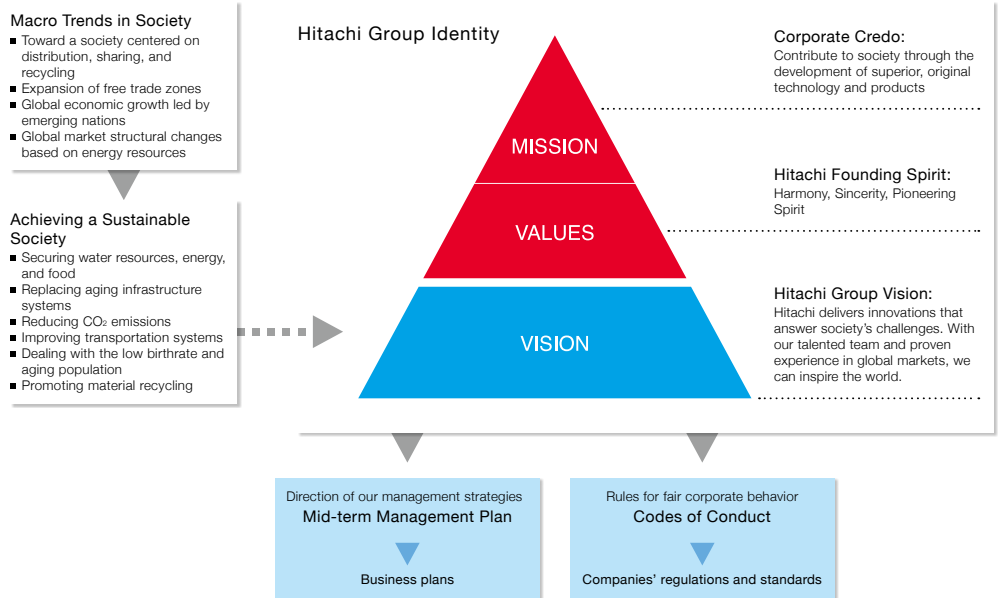
The Group Vision indicates the path to the next stage of growth. We draw on the ethics and values that Hitachi has developed over the past 100 years—encapsulated in our Corporate Credo and Founding Spirit—while continuously considering the next generation. We look ahead to the longer term, while promoting 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 this vision; by integrating our management and CSR 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 by promoting Social Innovation Business, and with robust, diverse governance and a pioneering spirit and a strong ethical stance for our employees. We also comply with national laws and work in line with the Hitachi Group Codes of Conduct.

In our 2015 Mid-term Management Plan, we have set a target for our overseas revenue ratio of over 50% and expanded our Social Innovation Business in the global market. To further accelerate global growth in fiscal 2015, the last year of the plan, on April 1, 2015, we appointed Chief Executives who will function as representatives of the Hitachi Group in interactions with regional societies and customers in four global regions: in the Americas, in China, in the Asia-Pacific, and in Europe, the Middle East, Africa, and the Commonwealth of Independent States (EMEA/CIS). They will transition Hitachi's worldwide operations to an "autonomous decentralized global management" structure in which each region, including Japan, leads its business autonomously, maintaining a global outlook while finding solutions to local issues.

We are expanding the Social Innovation Business globally to successfully complete the 2015 Mid-term Management Plan and achieve growth prior to its completion.

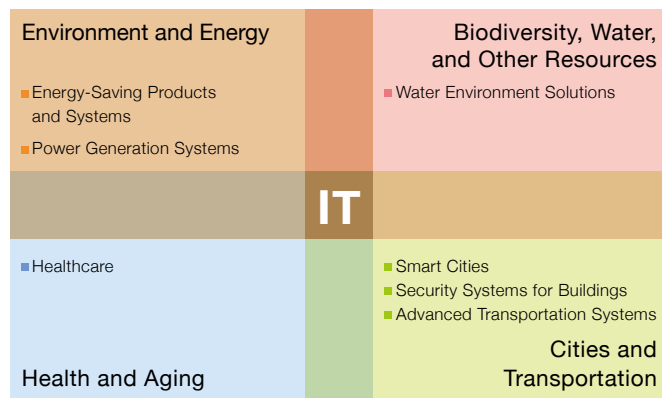
### Trends in Society and Hitachi Group Identity



### Hitachi's Solutions for Social Issues

Combining our wide-ranging business activities with IT solutions helps us resolve social issues, including global environment problems.

Social Innovation Business



#### Integration Through IT

Advanced networks, storage, and cloud computing technologies connect infrastructure, products, and people. Hitachi provides optimal solutions to resolve social issues.



## The Environment and Energy

The aim of Hitachi's environmental management is to "achieve a sustainable society." For one key element of this aim, preventing global warming, we are reducing CO<sub>2</sub> emissions through our business operations.

### Energy-Saving Products and Systems

We contribute to the reduction of CO<sub>2</sub> emissions across society as a whole by providing products and services with low energy consumption.

### Power Generation Systems

We develop wind and solar power and other renewable energy power systems, as well as reducing CO<sub>2</sub> emissions by improving the efficiency of these systems.

## Biodiversity, Water, and Other Resources

Ensuring biodiversity for the next generation means preserving ecosystems today. We help to preserve ecosystems through business operations that clean the air, water, and soil.

### Water Environment Solutions

Our water environment solutions—purifying polluted water and desalinating seawater, for example—enable more efficient use of this limited resource.

## Health and Aging

Responding to aging in societies worldwide, our medical solutions maintain and improve health. As well as diagnostic and testing equipment for early treatment, we supply pharmaceutical manufacturing equipment for safe, effective drugs.

### Healthcare

We contribute to medical innovation by providing solutions across the healthcare cycle, including particle beam therapy systems and big data systems for preventive care and diagnostics.





## Cities and Transportation

Our infrastructure solutions increase safety and comfort in cities and remote islands with limited infrastructure. Solutions include safe, high-speed transportation networks; highly stable, efficient power equipment and transmission networks for diverse power sources, including renewable energy; and water systems for a safe, constant supply of water.

### Smart Cities

Worldwide, we propose new forms of cities that are safer, more secure, and more convenient, and we contribute to the standardization of smart city infrastructures.

### Security Systems for Buildings

Our security systems cover exit/entry as well as elevator operations and maintenance.

### Advanced Transportation Systems

Our safe, convenient railway and traffic information systems help reduce the environmental burden and congestion.

## 2015 Mid-term Management Plan Targets

The 2015 Mid-term Management Plan focuses on three themes: Innovation, Global, and Transformation. To achieve our targets, we will grow and transform through our Social Innovation Business.

## 2015 Mid-term Management Plan and Fiscal 2014 Results (Consolidated)

Management Targets		
	Fiscal 2015 Target* <sup>1</sup>	Fiscal 2014 Results* <sup>2</sup>
Revenues	10,000 billion yen	9,761.9 billion yen
EBIT* <sup>3</sup> (operating income) ratio	Over 7% (over 7%)	5.6% (6.2%)
Net income attributable to Hitachi, Ltd. stockholders	Over 350 billion yen	241.3 billion yen
Net income attributable to Hitachi, Ltd. stockholders per share	Over 70 yen	49.97 yen
Total Hitachi, Ltd. stockholders' equity ratio (manufacturing, services & others)	Over 30%	27.3%
Service Revenue Ratio, Overseas Revenue Ratio, Number of Employees		
Service revenue ratio (including systems solutions)	Over 40%	35%
Overseas revenue ratio	Over 50%	47%
Employees in Japan	200,000	193,000
Employees outside Japan	150,000	139,000
Effects of Hitachi Smart Transformation Project * <sup>4</sup>		
	Total up to Fiscal 2015	Total up to Fiscal 2014
Cost reduction effect	400 billion yen	310 billion yen

\*1 Assumed exchange rate: ¥90/\$, ¥115/€

\*2 Exchange rate: ¥110/\$


\*3 EBIT: Earnings before interest and taxes

\*4 A project to standardize global operations by optimizing the Group structure, expanding global shared services, and globally standardizing and centralizing IT and administrative systems.



### 2015 Mid-term Management Plan and Key Issues for Hitachi

In addition to financial activities, improved non-financial performance aimed at addressing Hitachi's key issues plays a crucial role in achieving the 2015 Mid-term Management Plan goals. We set targets for non-financial activities related to key management policies and started these activities in fiscal 2013.

Material Issues for Hitachi 

Management Focus	Material Issues for Hitachi	
	Fiscal 2015 Targets	Fiscal 2014 Results
<b>Innovation:</b> Strengthen service businesses that maximize IT utilization and bring about innovation	<b>Sustainable Business</b>	
	Expand R&D centers	Promoted R&D in 7 areas globally (as of June 2015)
	Increase R&D staff by 500 people	Japan: about 200 people Outside Japan: about 300 people
	Strengthen Open Innovation	Japan: 246 cases Outside Japan: 85 cases
	<b>Caring for the Environment</b>	
Eco-Product sales ratio: 90%	93%	
<b>Global:</b> Deliver innovation to customers and society globally	<b>Diversity Management</b>	
	Diversity among directors	Outside directors: 8 Non-Japanese: 4 (of which 2 are women) (as of June 2015, out of 12 directors)
	Female senior executives	Appointed female head of CSR and Environmental Strategy Division as senior executive-level director on April 1, 2015 Complete appointment by fiscal 2015
	Female managers (Hitachi, Ltd.) Fiscal 2020 target: 1,000 women	434 women
	<b>Respect for Human Rights</b>	
	Implement due diligence on business and human rights	Created guide for conducting human rights due diligence and shared with Group companies
	<b>Public Policy Initiatives</b>	
Engage in dialogue with government officials	Policy council participation	
Provide forums for stakeholder dialogue	Events held in Europe and Australia	
<b>Transformation:</b> Transform Hitachi: To deliver innovation by standardized and speedy operation	<b>Diversity Management</b>	
	Promotion of global human capital management strategy	Introduction of Global Grading System, which applies to all managers in the Hitachi Group worldwide, as a common platform for job evaluations, assessing the value of management duties against a common standard
	<b>Sustainable Business</b>	
Promotion of Hitachi Smart Transformation Project Target outcome (aggregated fiscal 2011-15): 400 billion yen	Total up to fiscal 2014: 310 billion yen	

## Leadership

### Management Message



Hiroaki Nakanishi

Toshiaki Higashihara

### Hitachi: Creating New Value for Society Together with Our Customers

Humanity today is buffeted by dramatic change. We must tackle deep-reaching issues that impact our society on a global scale: energy and environmental problems, water-related issues, population explosions, increasing poverty, and the graying of societies. Companies are called upon to work with diverse stakeholders to find the solutions our society needs. Technological innovation built on advanced IT is coming to play an ever-greater role in addressing these issues.

Since its foundation, Hitachi has aspired in its business activities to fulfill its mission: to contribute to society through the development of superior, original technology and products. Today we remain committed to this mission. By integrating the infrastructural and information technologies we have created during our years of experience, we provide new solutions in areas like transportation and energy systems and water supply systems using our desalination technology. These areas represent our Social Innovation Business, through which we seek to contribute to solutions to the global issues we all face.

#### Collaborative Creation with Our Customers

The social issues that we seek to address through our Social Innovation Business are growing more complex all the time, and there are considerable differences in the needs of our customers and of societies in various countries and regions. To accurately and swiftly grasp the nature of the problems facing our customers and these societies, we must position ourselves close to the customers and consider the needed solutions together with them. Hitachi believes that this “collaborative creation” is a key way to approach the issues. As our Social Innovation Business expands worldwide, to advance collaborative creation we must foster mutual trust with national and regional governments, local communities, academic societies, nongovernmental organizations, and other stakeholders and address their respective needs surely and reliably.

At Hitachi, we are working to promote diversity from perspectives including gender, nationality, and values—all the aspects of each person’s individuality. We are also striving to secure the human resources prepared to shine on the global stage. In these ways we seek to foster global leaders who can drive our innovation into the future. We furthermore strive to share the principles of “Basics and Ethics,” the foundation of our corporate philosophy, with all our stakeholders. This goes beyond dedication to corporate ethics, such as compliance with laws and international social standards, to encompass our business activities that aim to enhance our value as a company.

In addition to raising our economic value as a company, we work together with our customers to create things of true value to society. In this way we pursue a safer, more secure, more comfortable society for people around the world.

Hiroaki Nakanishi  
Chairman & CEO

Toshiaki Higashihara  
President & COO

## Executive Officer's Message: CSR and the Environment

### Meeting Society's Expectations Through Collaboration with Stakeholders



#### Toshiaki Kuzuoka

Representative Executive Officer;  
Senior Vice President and Executive  
Officer; General Counsel &  
Head of Corporate Communication;  
Head of Risk Management;  
General Manager of Legal and  
Communications Group; General  
Manager of Risk Management Group;  
General Manager of Corporate  
Hospital Group  
Hitachi, Ltd.

In recent years, there has been a global trend toward greater interest in corporate governance among investors and other stakeholders. In Japan, too, there are growing demands for disclosure of corporate non-financial information and greater communication with stakeholders, including the June 2015 formulation of a corporate governance code. Hitachi, which aspires to be a major global player, has long been actively involved in non-financial information disclosure. We also agree with the spirit of the corporate governance code and have moved to disclose information in our *Corporate Governance Report*.

Hitachi collaborates with customers in identifying issues of importance and thinking about ways to resolve them. Communication with customers and our diverse stakeholders is an effective means of grasping the expectations of global society as we determine Hitachi's business policies from a CSR perspective.

In the area of CSR, we formulated the Hitachi Group Human Rights Policy in fiscal 2013 and put it into effect in fiscal 2014. With the aim of understanding the effects of our business on human rights on a Group-wide basis, we worked together with NPOs and Hitachi Group companies to prepare the Human Rights Due Diligence Guidance, which is now being shared within the Group.

In the environmental field, we are conducting the Hitachi Global Lights-Off Campaign at 234 locations in 23 countries worldwide. In the coming years we intend to continue such global efforts together with Hitachi Group employees and local societies. Our environmental action plan for 2013-15 has played a role in moving toward sustainability for society, and we are now working to develop a new action plan to succeed it.

At Hitachi we will continue to conduct our business in a way that reflects the expectations of society, as seen through communication with stakeholders, and, by disclosing information on measures and outcomes, to achieve corporate management with a high level of transparency.

## Executive Officer's Message: Procurement

### Working as a Group to Create Innovation Through Collaboration with Customers



#### Shinichiro Omori

Vice President and Executive Officer;  
CPO; General Manager of Corporate  
Procurement Division; Project Leader  
of Direct Materials Cost  
Transformation Project and Indirect  
Materials Cost Transformation Project,  
Smart Transformation Project  
Initiatives Division  
Hitachi, Ltd.

As Hitachi expands its Social Innovation Business globally to resolve issues through collaboration with customers, the need is greater than ever for the company to work closely with its business partners. A major challenge in procurement is to increase added value by building partnerships with competitive suppliers around the world, being always on the lookout for ways to fully optimize the value chain.

We are working as a Group to identify and mitigate risks across the value chain. In terms of CSR, we continually implement CSR Monitoring (self-checks) and external audits of suppliers from China and other Asian countries.

At the same time, while we have 25 international procurement offices, the actual task of placing orders has been consolidated into a professional service company in the Hitachi Group that focuses on key operations like selecting reliable business partners and taking a globally coordinated approach to purchasing, thus ensuring that each region can add value in an autonomous fashion.

Moreover, to make full use of the information held by the Hitachi Group, we have built a database of suppliers, registering reliable business partners and sharing information on them. This has not only resulted in reduced costs through the expansion of local procurement but also mitigated supply-chain risks, including those related to CSR.

To ensure the steady implementation of these initiatives, we are developing and reinforcing our global procurement human resources by enhancing various e-learning materials and opportunities for on-the-job training. We encourage all procurement personnel to take on various new challenges so they can better understand the importance of maintaining a competitive edge from a global perspective.

## Executive Officer's Message: Human Capital



### Creating Dynamic Workplaces Through Diversity and Inclusion

#### Hidenobu Nakahata

Vice President and Executive Officer;  
CHRO; General Manager of Human  
Capital Group; Project Leader of  
Headquarters Transformation Project  
and Global Human Resources  
Transformation Project, Smart  
Transformation Project Initiatives Division  
Hitachi, Ltd.

Hitachi's global human capital management strategy is designed to optimize individual and organizational performance toward the goal of transitioning to an "autonomous decentralized global management" structure.

Diversity and inclusion are important components of this strategy. Hitachi is striving to create workplaces that embrace diverse human capital. A good barometer of the progress made in recent years is the success of our efforts in Japan to maximize the potential of female employees, as corroborated by the recognition we have received in external assessments. In July 2014, Hitachi Chairman Emeritus Takashi Kawamura received the Prime Minister's Commendation for Efforts Toward the Formation of a Gender-Equal Society, and in March 2015, the Ministry of Economy, Trade, and Industry and the Tokyo Stock Exchange selected Hitachi, Ltd. for Nadeshiko Brand designation for the second year running.

Opportunities for non-Japanese human capital are also expanding, as seen in Hitachi, Ltd.'s appointment of two foreign executive officers in April 2015. We will continue to promote diversity and inclusion in the future as we accelerate our efforts to achieve an "autonomous decentralized global management" structure.

Since fiscal 2013 we have been conducting a Group survey called Hitachi Insights, based on which we are making ongoing workplace improvements worldwide. The survey was distributed to 194,000 employees in fiscal 2014, and the survey results confirmed that improvements are being made in a variety of areas.

In fiscal 2015 we will push forward with our global human capital management strategy and continue creating workplace environments that maximize the potential of our diverse human capital so we may grow both individually as employees and collectively as a Group.

## Message from Representative (Europe)

Sustainability is critical for Europe. Hitachi can contribute through its Social Innovation Business as well as social contribution and environmental activities, ensuring a better life for us and future generations.



**Klaus Dieter Rennert**  
Chief Executive for EMEA/CIS  
Hitachi, Ltd.  
Chairman  
Hitachi Europe Ltd.

Europe is midway through its Europe 2020 strategy for smart, sustainable, and inclusive economic growth that addresses employment, innovation, education, poverty, climate, and energy sustainability. Hitachi can contribute through its Social Innovation Business as well as its social contribution and environmental activities.

Social Innovation is not just central to Hitachi's business strategy: it is fundamental to achieving a sustainable society. Successful delivery of Social Innovation requires integration of a wide range of stakeholders. In Europe, we engage in relevant policy discussions with and capture the expectations of our local stakeholders. Working with trusted partners including CSR Europe, we discuss salient social innovation and sustainability issues with experts to gain feedback and hold ourselves accountable for delivering solutions that answer society's challenges.

One example is our healthcare business. Hitachi engaged with stakeholders at the 14th Hitachi EU Science and Technology Forum in October 2014 on "Innovative collaboration for better healthcare" and through a debate on the future of healthcare in the United Kingdom hosted by *The Guardian* in November. It is apparent that healthcare systems not only require ongoing technology innovation but are also becoming more patient centric. Therefore, Hitachi's Big Data Research Laboratory, which recently opened in Copenhagen, will—in collaboration with Bispebjerg and Frederiksberg University Hospital—conduct studies to develop new healthcare solutions.

To support our investments in European infrastructure, Hitachi is partnering with local and national education institutions. Hitachi Rail Europe recently announced its collaboration with the University of Sunderland and a local company, Gestamp Tallent Automotive, to open the first University Technical College in County Durham, the United Kingdom. Furthermore, many Hitachi employees across Europe are delivering educational programs focused on science, technology, engineering, and math targeting various ages. Our aim is to contribute to the future local talent pipeline, supporting employability and meeting Hitachi's workforce needs.

Social Innovation will be measured by its positive impact on society. It's not just about doing business. It's about ensuring a better life for us and future generations, in Europe and beyond.

## Message from Representative (Americas)

In the Americas, we promote CSR activities including concern for human rights and social contribution activities based on our guiding principles of doing business in ways that are innovative, inclusive, and sustainable. Our CSR activities are fueled by our employees' initiative.



### Jack Domme

Chief Executive for the Americas  
Hitachi, Ltd.

Chief Executive Officer  
Hitachi Data Systems

In the Americas, our Social Innovation Business is a strategic growth engine that also promises to bring lasting benefit to our region. As we expand our business in competitive global markets, our Social Innovation solutions must be innovative, inclusive, and sustainable.

- **Innovative:** Our solutions provide unique answers to societal needs by interlocking our IT and infrastructure knowledge.
- **Inclusive:** We bring together all of the vast resources of Hitachi in order to deliver unique value to our customers.
- **Sustainable:** We always consider the social and environmental impact, as well as the business sustainability, of our solutions.

Hitachi's approach to corporate social responsibility reflects these principles. We believe that to create more vibrant communities, we must support and participate in the communities where we operate through both philanthropy and volunteerism. And our local employees are the best people to understand and respond to the needs of their communities. This is why we have taken a highly localized approach to CSR. Employee-led Community Action Committees across Hitachi companies in North America initiate volunteer activities and make charitable donations on behalf of the company. This year, we are expanding our CSR footprint by increasing the number of committees throughout North America.

In fiscal 2015, we also will further educate employees on the topic of human rights. Employees will have the opportunity to participate in e-learning to expand their knowledge of human rights issues and how to safeguard against unintended infringements across the supply chain.

Hitachi is committed to delivering technologies, products, and solutions that create a smarter, safer, and healthier global society. Our Social Innovation Business is driven by the imperative to do good for society, and our CSR initiatives demonstrate how our employees embrace that commitment.

## Message from Representative (Asia-Pacific)

We will continue to contribute to the region by providing solutions through our Social Innovation Business in close collaboration with governments and business partners.



### Ichiro Iino

Chief Executive for Asia-Pacific  
Hitachi, Ltd.

Chairman  
Hitachi Asia Ltd. and Hitachi India  
Pvt. Ltd.

The Asia-Pacific region has some of the most promising emerging economies in the world. In Southeast Asia, regional economic integration is expected by the end of 2015 through formation of the ASEAN Economic Community (AEC). Since Southeast Asia will effectively become a single market, we estimate rapid and sustained economic growth that will support essential infrastructure development and improved governance across the region. In India, expectations are high for bold structural reforms in response to “Modi-nomics” — the Indian government’s initiative to fuel dramatic growth. On the other hand, in the Asia-Pacific Region, there are various social and environmental issues like the slow development of infrastructure, climate change, population growth, and urbanization.

We at Hitachi recognize our responsibility to contribute to solving society’s challenges through our Social Innovation Business. We have made significant achievements and progress so far in such areas as transportation, urban development, and water treatment to meet the needs of our diverse markets. Regarding the environment, we strive to do more than just save energy in our factories. We have installed information technology systems and equipment to track overall energy use and promote responsible energy management in our customers’ offices, hotels, shopping malls, hospitals, and manufacturing sites. We have also promoted the energy management business, which optimizes the total consumption of energy.

As our contribution to society, Hitachi has sponsored four-year scholarships to three students attending the Asian University for Women. Hitachi has also been operating such educational programs as the Hitachi Young Leaders Initiative and the Hindu-Hitachi Scholarship Program. We remain strongly aware of the significance and necessity of nurturing the next generation of leaders.

Hitachi will continue to contribute to the region by providing solutions through its Social Innovation Business, including social infrastructure and urban development, together with other necessary services in close collaboration with governments and business partners.



## Message from Representative (China)

We will press ahead with our CSR activities in China from a broad perspective, including daily business operations and volunteer activities as part of efforts to achieve our goal of becoming “the Most Trusted Partner in China.”



### Kenichi Kokubo

Vice President and Executive Officer;  
Chief Executive for China  
Hitachi, Ltd.

China is currently transitioning from its period of high economic growth, which served as an engine for the global economy, to a “new normal” set forth by the government that places an increasing emphasis on environmental problems and low carbon energy. Under this transition, particular focus is placed on the condition of air, water, and other essential resources.

As Hitachi aims to grow and develop together with Chinese society, we need to accurately understand local needs, including a growing awareness of environmental preservation. By combining our strengths in infrastructure technology and IT, we believe we can play a crucial role in solving these issues through our contributions to realizing a low-carbon economy.

In June 2014, we conducted the “Hitachi Group China Business Strategy Comprehensive Activities 2014” in Beijing to share the goal of unifying the management of the Hitachi Group companies in China and to set the future direction for our business in this country. In addition to a Chinese business strategy conference that brought together more than 300 Hitachi executives, the activities included a technology exchange meeting with the National Development and Reform Commission drawing 350 participants and a press conference for the major Chinese media. All of the activities were a great success.

While the success internally and externally showcased our strong determination to contribute to the development of Chinese society, it has also brought together the 180 Hitachi Group companies in China and fostered our approach as well as our mind in the same direction.

We also have to understand that compliance is another very important factor for Hitachi to develop its business in China. To continue our business activities responsibly in Chinese society, it is a must for each of our business partners to carry out its own social responsibilities.

As one of Hitachi’s efforts for compliance, the company conducts supplier audits every year. In fiscal 2014 we audited about 20 suppliers, scrutinizing their compliance with regulations related to the environment, human rights, and safety and health. We will continue these audits and are committed to fulfilling our social responsibilities together with our suppliers in China.

Hitachi also carries out a variety of activities for the benefit of China’s society. Last year, 2014, was the third year of the Hitachi Eco Education Classroom program, an original CSR activity of Hitachi Group companies in China. Over these three years, approximately 3,000 elementary students have participated in this program, which was highly regarded by schoolteachers.

At Hitachi Hope Elementary School, a school supported by Hitachi, the Hitachi Eco Education Classroom program was conducted. There we also replaced blackboards in all classrooms to improve the school environment for students to enjoy their studies. We also continued to nurture children through efforts including support for rebuilding a school affected by the earthquake that struck Yunnan Province in August 2014.

In fiscal 2015, Hitachi introduced its “autonomous decentralized global management,” which has been promoted globally. As the head of the Hitachi Group companies in China, I consider my office as the “control tower” for the region as we work closely with customers to solve the issues they face. This approach applies to all our CSR and social contribution activities; we are committed to proactively taking initiatives based on a CSR perspective, recognizing the high expectations people have of Hitachi.



Hitachi Cars Ready for Use in the Intercity Express



# INNOVATION

From 2015 to the Future

**As economic globalization continues, modern societies worldwide are confronting issues from shifting population structures and urbanization to global environmental threats and shortages of energy and water. Hitachi is integrating the infrastructural and information technologies created during its years of experience and applying them in the Social Innovation Business, the company's way of contributing to solutions for the issues humanity faces and helping to create societies where people can live in safety, comfort, and peace of mind.**

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## Energy Solutions

### Providing Stable, Sustainable Power to Meet Rising Electricity Demand

#### Social Issues Involving Energy Infrastructure



The Northeast blackout of August 2003 dealt a heavy economic blow to the United States. (New York City)

Electricity is a vital lifeline that supports virtually all economic activities and has become essential to the lives of people in modern society. With the urbanization and growing populations of emerging countries, global demand for electricity is expected to continue rising.

In energy-dependent modern societies, any stoppage in the electricity supply can halt the functioning of much of our social infrastructure, including medical, transportation, and government services. Problems in recent years include the aging and degradation of electric grid facilities in developed countries and the ongoing chronic power shortages in emerging countries. In all parts of the world, the effects of small-scale transmission failures can give rise to stoppages that affect electric power plants over wider areas. Infrastructure maintenance and development for the transmission and distribution of electricity, as well as for generation itself, are urgent tasks for a stable supply of power.

Increasing carbon emissions with global economic development are also a concern as global warming progresses. Serious problems resulting from this atmospheric warming include torrential rainfall, cold spells and other abnormal weather patterns, rising sea levels, floods, and food shortages. To slow the progress of global warming, there are calls to limit the use of energy obtained from the fossil fuels that are a source of carbon emissions and to expand the use of renewable energy produced by wind and solar power. One of the drawbacks of these types of renewable energy, however, is the large variability in energy produced depending on weather conditions. Introduction of this energy on a large scale, which may cause fluctuations in power output, will require solutions to overcome the issue of power grid instability.

#### MEGATRENDS

- Rising electricity demand accompanying population growth in emerging countries
- Instability in electricity supply, as seen in major blackouts around the world
- Global warming caused by increasing carbon emissions accompanying economic growth

## Hitachi's Approach

### Integrated Generation/Transmission and Distribution Systems for Stable Electricity Supply

In balancing the needs for a smaller environmental burden and a stable electricity supply, both more widespread use of renewable sources for power generation and development of an infrastructure for stable transmission and distribution are essential for the energy infrastructure that supplies electricity.

However, energy infrastructure circumstances differ by country and region. In emerging countries, building infrastructure to provide a stable electricity supply is the main issue in meeting the growing demand for electric power. As energy infrastructure expands, the need for greater use of renewable energy is also growing in response to concerns about air pollution and global warming. In the United States and some European countries, which are pushing energy market liberalization, challenges include dealing with aging social infrastructure and maintaining a stable electricity supply as more renewable energy comes on line. In Japan, where electricity system reform is underway, the accelerating use of renewable energy is bringing about growing needs for grid stabilization and energy storage solutions.

Resolution of these various issues requires understanding of the problems faced by societies and customers, as well as collaboration with customers to find solutions. Hitachi provides total energy solutions for a stable electricity supply while meeting various needs by taking advantage of its wide-ranging experience and technologies in the energy field, from generation to transmission, storage, distribution, and energy management.

One such area is wide-area grid stability solutions. The effects of power outages in modern societies are immeasurable. Preventing large-scale outages and providing a stable supply of electricity requires the development of grids with robust transmission and distribution capabilities. Hitachi provides solutions using the latest IT while responding to the different usage conditions in each part of the world.

The introduction of renewable energy on a large scale will be an essential part of next-generation, sustainable energy infrastructure that supports comfortable, convenient lives. The massive earthquake that struck northeastern Japan in 2011 highlighted problems in the nation's energy supply and led to calls for the introduction of more autonomous, decentralized energy systems. These systems would utilize more renewable energy for greater resistance to disasters and have smaller environmental impacts. Hitachi is working to develop basic technology to improve the reliability and competitiveness of wind and solar power generation. We are trying to make renewable energy more commercially viable, starting with the world's first floating offshore wind farm. Other efforts are in the areas of energy storage solutions to maintain the power supply-demand balance when renewable energy is introduced on a large scale and "smart grids," next-generation power supply networks that use IT to control the amount of demand on a system to match the power generated.

Since Hitachi's foundation, the company has contributed to constructing energy infrastructure in countries worldwide, with exports to 67 countries and deployment of energy solutions businesses in North America, Europe, and elsewhere.

### Case 1: Storage Solutions for Stable Renewable Energy: “CrystEna”

Power generation systems using renewable energy sources like wind and solar have been spreading in recent years. With renewable energy, however, the power output fluctuates depending on weather and other conditions, and disturbances in voltage, current, and frequency can affect entire power systems, decreasing the quality of electricity or leading to major blackouts. Balancing supply and demand, such as the need to limit generation during times with little demand, is therefore essential. Energy storage systems are eyed as one solution to overcome this issue. Hitachi has a strong record in producing energy storage system devices and many types of battery—for general consumers, industry, and automobiles—and is conducting wide-ranging efforts for better energy storage solutions, from research and development to construction, installation, maintenance, and operation of its CrystEna\*<sup>1</sup> storage systems.

\*<sup>1</sup> CrystEna: The name was created by combining the “Crystallization” of state-of-the-art technologies in the Hitachi Group and “Energy.”

#### Hitachi’s All-in-One Container-Type Energy Storage System

The United States has taken steps to increase the use of renewable energy by opening the power transmission networks and liberalizing electricity retailing, and its wind and solar power generation are among the top in the world. With the growing adoption of renewable energy, however, there is concern about instability in the electricity supply. This has given rise to business opportunities in ancillary services (system operation services provided by power system operators to maintain the quality of electric power) as a market, in which the adjusting capacity for stabilizing electric power itself can be traded.

Hitachi has developed an all-in-one package system to help stabilize power systems by storing large amounts of electricity. A demonstration project was begun in New Jersey in February 2015. It is the result of basic research in energy storage systems over many years. It contains about 1,600 lithium-ion batteries capable of high power discharge and more than 8,000 charge/discharge cycles. It is a complete system that includes a control unit, power conditioning, and other systems all in one 40-foot container. The container format helps to minimize installation work, setup time, and costs. It also means that a large system can be configured by installing a number of units in tandem.

Hitachi has also developed a simulator that can predict battery life, using this to estimate a service life of 10 years for this system. Full safety measures also include disconnection in the event of an emergency and an automatic fire-fighting system. In a demonstration experiment, energy storage was shown to be useful in stabilizing power systems by rapidly adjusting input and output in a matter of seconds in response to frequency and voltage change signals, which vary over short time periods. Further verification results will be used in developing batteries that are more compact, less expensive, and longer-lasting.



The 1-MW container-type energy storage system comes in a standard 40-foot container form.

### Large Hybrid Energy Storage Systems for Durability, Low Cost

On Izu Oshima and other islands in Japan, electricity is supplied by independent systems powered mainly by diesel generators. In such places, early adoption of wind and solar power generation is seen as a way to reduce fuel costs for this independent energy supply.

Hitachi has developed one promising means to achieve a stable electricity supply with the use of surplus power from renewable energy: its large, 1.5-MW hybrid energy storage system combining high input/output, long-life lead-acid batteries with lithium-ion capacitors that are useful in suppressing short-period voltage and frequency fluctuations. Energy storage systems connected to energy infrastructure need to have long lives and be durable, reliable, and inexpensive. This large hybrid energy storage system incorporates major technological achievements, such as improved battery characteristics (a 1.7-fold increase in input and output currents compared with Hitachi's conventional batteries) and an anticipated extension of battery life to 20 years. It was connected to the Izu Oshima power system in 2015 to test its peak shift response, ability to suppress short-period fluctuations, and service life.

Other advanced technologies will be introduced at the same time, including a system to simulate the effects when renewable energy is introduced and the best system composition for stability. Efforts are also underway to make the system suitable for islands by using remote monitoring to improve operation and maintenance.

### Case 2: Applying IT in Wide-Area Grid Stability Solution to Prevent Blackout

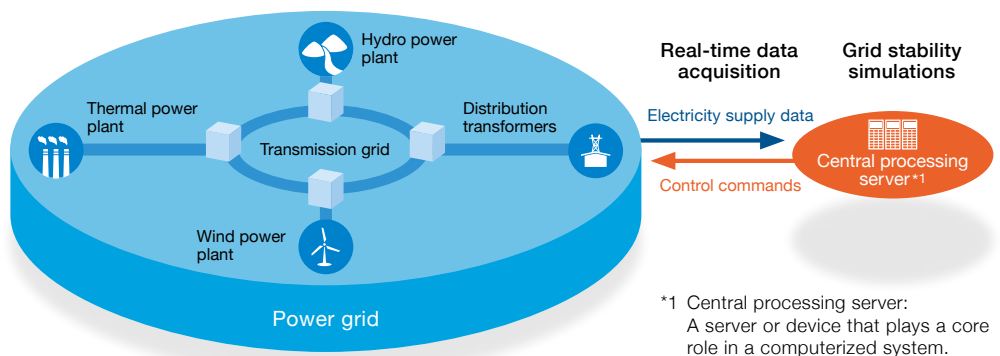
Lightning strikes on power lines and other accidents can cause instantaneous voltage drop, leading to power swings that cause fluctuations in voltage or current. If such swings continue, the effects can extend to wider areas and in some cases result in major blackouts. Renewable wind or solar energy is susceptible to changes in output due to the weather, and voltage, current, and frequency disturbances can decrease the quality of electricity or cause major blackouts. Hitachi provides total solutions for stable power transmission, from energy generation, transmission, and distribution equipment to control systems utilizing IT, including monitoring control and grid stabilization.

### Online Testing of New Grid Control System that Prevents Major Outages

For more stable grids, improvements in electricity quality need to be achieved by constant monitoring and control of electric flow during transmission. Since 2012 Hitachi has been conducting joint research with the US Department of Energy's Bonneville Power Administration (BPA) on a grid stabilization system that can adapt to the increasing use of renewable energy. A demonstration project for the new system for grid control to prevent major outages was started in October 2014.

Grid status has been monitored in the past by supervisory control and data acquisition (SCADA) systems, but these systems can measure only voltage and current, not phasors. The present system adopts phasor measurement units (PMUs), which are coming into widespread use in the United States. With real-time collection and analysis of information on phase in addition to voltage and current, this system makes it possible to formulate measures to prevent major power outages. Although PMUs are currently spreading worldwide, their use is limited to grid status monitoring. Hitachi is also combining grid analysis technology and IT with the aim of developing a new, integrated stabilization system that overcomes issues in grid operation.

### Optimized Power Control from Generation to Transmission



Generated electricity, including from wind, solar, and other renewables, is transmitted to substations via the grid and distributed to homes and businesses. Hitachi is using its technology and experience to design and construct systems that stabilize the entire grid, from generation through transmission and distribution.

### Smart Grids to Deal with Aging Infrastructure and Renewable Energy Introduction

Poland is increasing its wind power generation capacity to meet its ambitious targets of supplying 15% of its electricity from renewable sources by 2020 and 19% by 2030. At the same time, the country must deal with aging infrastructure, more than half of which was built more than 40 years ago. Upgrading and enhancing energy infrastructure equipment will require major capital investment and will impose significant management challenges. To accelerate the use of renewable energy while minimizing capital investment, there is growing interest in stabilization technology that can maintain reliable grid operation.

Hitachi has been selected by the New Energy and Industrial Technology Development Organization (NEDO) as a partner in a smart grid demonstration project, which is one of NEDO's demonstration projects of international energy consumption efficiency technology and systems, in Poland. By building on the grid stabilization technology that Hitachi has developed over the years, implementing new control techniques for the real-time curtailment of wind power output and energy storage systems, the company aims to create grid stabilization systems for Poland that will help expand the country's use of renewable energy, minimize its capital investment in energy infrastructure, and maintain stability in its grid operations.

### Case 3: Large-Volume Renewable Energy from 5-MW Offshore Wind Turbine

There is growing interest in renewable energy as a way to contribute to the prevention of global warming. Among the different types of renewable energy, wind power generation is now reaching output and cost levels that are on a par with conventional power generation using fossil fuels and nuclear power. These systems are growing in size and sophistication worldwide.

Hitachi developed a 2-MW downwind turbine for use in Japan's demanding conditions, such as typhoon gusts and wind turbulence in its mountainous regions. Hitachi's HTW2.0-80, a 2-MW wind power generation system, has been installed at many sites and maintains a top share in Japan. We are also participating in offshore floating wind farm demonstration projects sponsored by agencies including the Ministry of Economy, Trade, and Industry and the Ministry of the Environment. The first seven fixed-base offshore wind turbines built in Japan commenced operation in 2010, with an additional eight turbines added in 2013.

With this experience, Hitachi has developed a 5-MW offshore wind turbine with downwind rotor, the HTW5.0-126. Japan is surrounded by large areas of ocean; therefore, there is much greater potential for wind power generation than on land. Offshore wind power generation has few restrictions with respect to siting, scenery effects, and noise, but compared with land-based facilities, construction and operation costs are higher and maintenance is difficult. This makes it necessary to develop offshore wind power generation systems with high output per unit and high reliability.

The HTW5.0-126, which has recently been completed, meets needs for larger turbines for the offshore wind farms expected to be built in the future. Compared with our previous 2-MW offering, this wind power generation system has a rated output of 5-MW, about 2.5 times higher, and rotor diameter of 126 meters, about 1.5 times greater than the previous system's dimensions. The HTW5.0-126 system uses a unique configuration developed by Hitachi with the rotor located on the downwind side of the tower. In this configuration, the rotor is maintained in an orientation that does not receive crosswinds during heavy storms—even the typhoons that frequently affect Japan—thus serving to reduce the wind load. Moreover, with a new combination of a permanent magnet synchronous generator and a medium-speed gearbox, Hitachi decreased the weight and size of the entire system with respect to output and improved reliability. It is also expected to provide better safety and reduced costs of installing the seabed foundations or floating platforms.

Hitachi will continue to build our business in the growing wind energy field, thereby contributing to the creation of a low-carbon society.



## Future Outlook

### **Enriching lives worldwide with advanced energy infrastructure. Hitachi applies its IT expertise to contribute to infrastructure providing a stable electricity supply.**

As renewable energy comes into greater use worldwide, a growing number of power generation facilities are located in land areas or on the sea far from the cities in the demand area. To secure stable power transmission over long distances, wide-area grid stability solutions are essential. There is also a need to maintain the electricity supply even when generation systems go down due to natural disasters or other causes by interconnecting grids over a large area.

In many countries, grid operators are pursuing more robust wide-area interconnection with the aims of energy market liberalization and greater reliability. High-voltage direct current (HVDC) transmission systems are being looked at as a stabilization solution for long-distance transmission and wide-area interconnection. These are systems for transmitting electricity between two different grids. Electricity is converted to direct current before transmission, reducing electricity losses, facility sizes, and construction costs. This approach is also applicable to systems that cannot be connected directly with alternating current because of different frequencies. Hitachi has participated in all HVDC projects in Japan, contributing to the stabilization of the nation's grids.

With growing needs for HVDC in the Japanese market, Hitachi formed a joint venture with Swiss company ABB, a leading power and automation group, in December 2014, and signed a formal contract in June 2015 to provide new technology in a timely manner. Hitachi will provide ABB's latest technology to HVDC projects on which Hitachi is the prime contractor, taking full responsibility for all aspects of direct current (DC) systems, from design to engineering and equipment supply as well as after-sales service. The intention is to contribute to wide-area electric power distribution networks in Japan by combining Hitachi's sales network, project management know-how, and quality assurance processes with leading-edge HVDC technology and system integration capability from ABB.

Many parts of the world remain without electricity. So that all people can enjoy the richer life supported by power systems, Hitachi seeks to bring electricity to all parts of the world with one-stop solutions addressing issues from transmission to transformation and distribution. We will contribute to the stable supply of electricity with social innovation based on infrastructure that utilizes the latest IT, increasing the reliability of power transmission and distribution.

## Traffic Infrastructure Initiatives

### Addressing Congestion and Aging Infrastructure

#### Social Issues Surrounding Transportation Infrastructure



The London–Brighton rail line runs atop England's Balcombe Viaduct, completed in 1841.

Around the world, more and more people are choosing to live in cities. In 2014, 54% of the world's population lived in urban areas. By 2050, 66% of the world's population is projected to be urban. As populations and economies grow around the world, humanity is increasingly concentrating in urban centers of development. This presents an opportunity for societies to create the right transport infrastructure to get people to where they need to go more efficiently than ever before. Creating this complex infrastructure is a challenge, though, and many developing societies are lagging behind.

By 2050, the world will see a major change in the makeup of the top 10 nations by GDP size, as established industrial economies contract and emerging economies like India, Brazil, and Indonesia continue to rise. In many of these growth regions, the development of mobility infrastructure will be outstripped by the sheer speed of urbanization. As cities grow, they invariably confront the issues of chronic road congestion and rising numbers of traffic accidents, as well as worsening environmental problems due to transportation-related air pollution. Economies will be constrained by these cities' limited ability to expand and move people from A to B.

Infrastructure issues affect the developed world too. In addition to aging of their existing infrastructure—only to be expected in countries that were leaders in introducing urban transportation systems long ago—problems include the need for improvement and rearrangement of these existing systems to address demographic shifts and changes to their industrial base.

Hitachi offers solutions that help all these economies, developing and developed alike, to keep their transportation infrastructure effective, efficient, and central to their continued growth.

#### MEGATRENDS

- Urbanization and population concentration around the world
- Worsening air quality resulting from economic development
- Infrastructure improvements in response to demographic changes

## Hitachi's Approach

### Railway Systems for Sustainable Cities and Development

Today every market around the globe is seeing rising demand for transportation of people and goods, and for the systems that support it. A successful provider of infrastructure solutions must have global reach to meet this demand. Each market faces its own set of issues, including economic factors, regulatory frameworks for safety and other matters, and environmental concerns.

Hitachi is focused on the specific needs and concerns of its customers around the world, identifying the issues that they face and developing the solutions that they demand. Our aim is to provide a tailored response to the issues faced by our customers in order to ensure sustainable development of urban living environments, as well as to bring enhanced comfort and convenience to the lives of the traveling public.

Hitachi's Railway Systems provide a full array of products and services. As a leading rail vehicle manufacturer, we produce the trains that connect the networks we serve. Furthermore, our traffic management system ensures optimal performance of the rail system as a whole while ensuring reliable operation of each in-service train. Rail is more than just a commodity. Our aim is to provide complete turnkey solutions for our target markets, encompassing the track and rolling stock, traffic management systems to ensure that the complete network functions safely and smoothly, and the train maintenance services that keep operating efficiency at peak levels.

The core of Hitachi's expertise is the cutting-edge technologies that go into our trains. Most notably, these trains include the Shinkansen, Japan's famously safe and efficient "bullet trains." The company has built an industry-leading track record for the traffic management systems and mechanical reliability that underpin Japan's reputation for down-to-the-second punctuality and a flawless operational safety record.

At Hitachi, safety is our number-one concern. Our railway systems are designed intelligently to isolate and minimize failures, so that any defects will have minimal or no impact on the rest of the system. We set safety as our top key performance indicator—not just for the products that we deliver, but also for our factories and all our other operations as well. Our dedication to safety ensures not just compliance with regulatory requirements in all the markets that we serve, but also that we remain the vendor of choice for customers who know that the lives and property of their customers come first.

Environmental and quality-of-life considerations are also key drivers of our technological and systems innovation. Years of Hitachi research and development have produced train vehicles that are lighter than ever while meeting safety requirements, make more use of recycled materials, and operate more quietly. These innovations minimize the impact on both passengers and communities living near the tracks. We are also a market leader in bi-mode/hybrid systems that run on electricity where it is available and, where no electricity is available, switch automatically to diesel or to batteries (charged by cutting-edge regeneration systems). Customers select rail solutions with the "whole-life approach" in mind, considering everything from weight and carbon emissions to serviceability and seamless compatibility with connected transportation networks. In this respect, Hitachi is a world leader in the technical integration of operation and signaling systems, providing expertise in all areas from urban light rail to city connections and international high-speed railway networks.

With our Railway Systems operations headquartered in the United Kingdom, we are uniquely positioned to offer globally minded solutions to markets around the world. We currently conduct rail-related business in 32 countries, and as of fiscal 2014 we are operating or providing rail systems to 28 countries worldwide.

### Case 1: Renewing the United Kingdom's Aging Railway Network

As the birthplace of the railway, the United Kingdom has a long history of trains and rail networks. This was part of the reason that Hitachi chose to run its global Railway Systems operations from a UK base. This will provide access to important markets in Europe and the Middle East, and will serve as a platform for expanding our rail capacity globally.

The United Kingdom's Victorian rail infrastructure has been going through a period of continuous upgrade and regeneration. In addition to an extensive program of electrification and resignaling, stations, platforms, track, and bridges are all being renewed. This is to ensure that the United Kingdom's railways remain a vital part of its economic activity for many years to come.

Drawing on our technical expertise built up through work on Japan's high-speed Shinkansen "bullet trains" and other rail networks, Hitachi is developing rail vehicles for the United Kingdom that flexibly respond to these infrastructure conditions. In developing rolling stock for the British Intercity Express Programme (IEP), extending to Swansea and Plymouth in the west and the major cities of Scotland in the north, Hitachi focuses primarily on safety and environmental performance.

We have introduced carefully tested safety measures that fully comply with European regulations. Safety is the primary key performance indicator for Hitachi, not just in the rail vehicles we build but also in our factories and all of our rail operations. It is also the most important criterion for customers when they select a partner—and a key reason that Hitachi was chosen to upgrade and maintain the entire IEP fleet in one of the largest rail projects in British railway history.

To keep the Hitachi trains as environmentally friendly as possible, we have focused on reducing the weight of the rail vehicles, improving their aerodynamic profile, and increasing the percentage of recycled materials that goes into them. A quiet train is an energy-efficient train: vehicle design that reduces rail noise and air resistance leads to lower carbon output and operational costs. We are also achieving dramatically shortened travel times: journey time on the London–Ashford portion of the southeastern Main Line, for instance, has been shortened from 80 minutes to 37 minutes.

Furthermore, Hitachi is increasing energy efficiency through intelligent interior design, by maximizing seating capacity without sacrificing passenger comfort. We are working closely with the authorities and railway operators to ensure that these clever designs also conform with universal design and other relevant regulations.

A railway is more than just trains. Hitachi is able to offer a complete package to IEP operators, including rolling stock, repair and maintenance, and IT services allowing smart, fully networked operation of the trains. Our intelligent systems integrate route signaling and onboard systems to let trains communicate with each other. By keeping track of where the other trains are on the route, our trains can maintain a safe distance with less braking—which in turn reduces energy loss.

With its development of bi-mode trains allowing travel on both fully electrified lines and under their own power, Hitachi is providing flexible, adaptable systems with wide applicability. Our fully integrated approach to the rail business has proven a winning strategy in diversifying the British transportation market.

Creating a thoroughly modern, reliable rail network is a fundamental stimulus to the British economy, and Hitachi is proud to play a key role. The Ashford Train Maintenance Centre, completed in 2007, and the new depots being readied for the IEP's introduction, are Hitachi's primary centers for rollout and servicing of new rail vehicles for British railways. We provide and create several hundred careers for skilled technicians, as well as the trickle-down effect that boosts the local and national economy. With a similar eye on the future of the British economy, we are sponsoring a university technical college in Newton Aycliffe, where we will have our European train factory. Scheduled to launch in 2016, this program will train up to 600 young people a year, filling a critical shortfall in engineers, and will help to ensure the future of our industry in the United Kingdom.



The Class 800 carriages Hitachi has unveiled for use on UK rail.

## Case 2: Providing Vietnam's First Urban Railway

Vietnam is in a period of sustained economic growth. The population of its largest city, Ho Chi Minh, is skyrocketing, leading to chronic and intense traffic congestion. With no public transit facilities other than buses, many residents ride motorbikes or bicycles, and a rapid increase in the number of automobiles in recent years has made a difficult road traffic situation even worse. Problems like traffic accidents and pollution are steadily worsening.

To help protect the environment and provide a sweeping improvement to the traffic situation, we are constructing Line 1 of the Ho Chi Minh urban rail network, which will be Vietnam's very first urban railway with an underground section. Hitachi earned high marks for its ability to provide comprehensive railway solutions, winning a contract to provide 11 subsystems including the manufacture of rolling stock, signaling systems, telecommunication systems, power supply systems, platform screen doors, ticket vending machines and passenger gates, and depot facilities. Hitachi will also provide maintenance service on all of these systems for five years.

Once completed, the railway network will be run by an operation and maintenance company to be established by Ho Chi Minh City. However, it is unrealistic to expect local staff to immediately take care of the maintenance of facilities like signaling systems, track, and overhead contact systems. Hitachi will transfer technology over the course of the five-year maintenance contract, while also helping to foster human resources. Given the shortcomings in Ho Chi Minh's grid infrastructure, Hitachi will give full consideration to eco-friendly energy efficiency in its construction of electrical facilities, such as by installing regenerative inverters.

### Planned Route of Line 1 of the Ho Chi Minh Urban Rail Network



### Case 3: Easing Congestion with a Safe, Convenient Monorail System

Traffic congestion in South Korea is getting worse due to increased concentration of the population in the capital of Seoul and in other key cities, as well as a rise in the number of automobiles on the roads. To address this problem, railway systems—which emit less CO<sub>2</sub> than automobiles on a per passenger basis—are being reevaluated, and plans for introducing light rail networks such as monorails, with relatively low construction costs and smaller environmental footprints, are proceeding in a number of cities.

The city of Daegu—the urban center of Korea’s southeast region, boasting about 2.5 million residents—has been grappling with these same issues. The municipal government has settled on a straddle-type monorail system as a means of preserving Daegu’s environment of rich greenery and rivers and reducing energy use. Hitachi has a global record in providing monorail solutions, starting with seven systems in Japan including the Tokyo Monorail and extending to systems in Chongqing, China, and in Dubai. Daegu selected us for this project due to our long record, as well as the high evaluations of our monorail technology and reliability.

Daegu Metro Line 3, Korea’s first urban monorail system, runs nearly 24 kilometers from the northwest to the southeast of the city, with 30 stations, and 84 cars in 28 train sets. It uses a driverless operation system. As a provision for ensuring passenger wellbeing in the event of an accident, one safety personnel member rides each train, and the cars are all equipped with safety systems like fire sprinklers and evacuation equipment that makes it easy for passengers to safely descend from the monorail cars. The monorail’s cutting-edge technology also includes mist-glass windows in passenger compartments that automatically turn opaque when the train runs through a residential area, thus ensuring the privacy of homes along the line. This project is proactively employing Korean products thanks to collaboration with local corporations and Hitachi Korea.

Daegu Metro Line 3 began operation on April 23, 2015. In addition to improving access to various facilities throughout the city, it is expected to have various spillover effects, such as the monorail itself becoming a tourist attraction.

## Future Outlook

### **Hitachi aims to provide fully integrated rail transportation solutions to serve and connect the “smart cities” of tomorrow.**

Looking forward, Hitachi Railway Systems will continue advancing its technologies in all areas: railway vehicle manufacturing, safety and environmental technologies that are central to train functions, and intelligent networks that integrate trains with signaling systems and railway operation centers. The company continues to prove itself in global markets at all levels of the industry, providing high-speed and city-connecting rail solutions as well as turnkey systems that meet fast-growing cities' urban transportation needs.

Rail transport is a vital part of eco-friendly urban design, and this role will only continue to grow as urbanization and population growth advance and demand for “smart cities” rises. Our SCADA (Supervisory Control And Data Acquisition) software systems enable detailed tracking of flows of people and goods around the clock, turning “big data” into a valuable tool for the transportation sector. We are also working on a full range of onboard train sensors that send data on component condition and performance to the maintenance engineers for analysis and tracking. Integrated solutions like these will help make transportation networks more reliable and cities as a whole greener and more efficient.

The cross-border integration of rail infrastructure is a growing field for our business. To prepare for this, we have actively moved to acquire key players in the European market, such as the Railway Engineering Company (TRE) Ltd., a provider of training equipment and automatic routing systems. Our 2015 acquisition of a significant stake in Ansaldo STS, the signaling and train control business of Italy's Finmeccanica, will give us greater capacity and improve our position to open new markets and expand our business in Europe and the rest of the world.

Rail will remain a strong global growth market for the foreseeable future. Our goal is to be recognized as the best rail supplier in the world—a company that customers aspire to use to meet their transportation needs. In the past 10 years, we have transformed ourselves from a rail vehicle manufacturer to a total railway solution provider, offering maintenance, financing, signaling, traffic management, and much, much more. We are well on our way to achieving our goal.

## Initiatives for Social Infrastructure Security

### Robust Urban Security for Both Safety and Convenience

#### Social Issues Related to Social Infrastructure Security



Chicago's O'Hare International Airport. (USA)

Increasing dangers are now foreseen from climate change, such as abnormal weather and natural disasters on a global scale. We are also seeing diversification of other threats that can hinder the operation of social infrastructure, such as frequent cyber attacks as urban infrastructure becomes increasingly networked and rises in armed terrorism in response to globalization.

Daily life and business in modern society are supported by an assortment of services brought to us by social infrastructure, such as medical care, waterworks, electricity, and transportation. People demand that the provision of services by social infrastructure operators be continuous and stable, 24 hours a day and 365 days a year. The networking of infrastructural systems that had previously provided service independently, tying them into other networks and devices to make cities even more convenient, has also been proceeding.

Since there is a danger that damage from a disaster or accident could affect a larger area following the initial outbreak, disaster response has become even more important. Services provided by social infrastructure depend upon one another, and so the wide variety of relevant organizations and operators must all work together while handling new threats.

#### Megatrends

- Diversifying threats to social infrastructure, such as natural disasters and cyber attacks
- Heightened reliance on infrastructure in our daily lives, making continual service provision vital
- Networking of social infrastructure services that increases their convenience but also potentially the mutual impact when trouble strikes



## Hitachi's Approach

### Addressing Diverse Threats in Adaptive, Responsive, and Cooperative Ways

In order to strengthen the security of social infrastructure, we must implement appropriate precautionary measures so that services can be maintained even in the event of damage, reducing the expansion of harm and its ripple effects while also being increasingly proactive about growing risks. All concerned institutions need to work together in a coordinated manner as they strive to enact a swift recovery.

We must realize a society robust enough to handle extreme disasters—one where people are protected from threats before they are even realized, without impacting their convenience or comfort. If an accident or attack happens at a large-scale international event, institutions need to work together to respond quickly, protect people's safety and security while continuing to provide services, and continue handling threats as they surface while safeguarding the convenience of ordinary people.

At Hitachi, we believe that social infrastructure security solutions must be Adaptive, continually strengthening defenses and precautionary countermeasures for novel and diversifying threats; Responsive, seeking to minimize damage and speed up recovery time after a disaster, attack, or other incident has occurred; and Cooperative, to address incidents via cooperation and information sharing among different organizations and service providers so that they can be aware of each other's circumstances. We grapple with a broad range of security countermeasures on both the physical and virtual fronts.

Since its founding, Hitachi has cultivated a range of individual technologies in the course of providing social infrastructure to the world and worked to integrate them toward further protection of safety and security. We continue to provide comprehensive solutions that cover everything from risk analysis and consulting to system establishment and operational support.

### Case 1: Keeping Major Facilities Both Convenient and Secure Against Diversified Threats

In today's society, where threats of terrorism and violent crime have risen markedly, expectations have also grown for security systems that help to ensure societal safety and security. Threats to large-scale facilities like event halls, sports facilities, airports, and stations, where people assemble or transit, are more diverse than simple terrorism. They also include flooding due to torrential rain, large-scale blackouts, and transit outages. Providing safety and security requires physical security, employing IT or other advanced technology, in addition to human security like guards. In environments with high-volume traffic by people over a large area, more advanced security technologies are also needed to avoid hindering the convenience of ordinary users.

In the three fields of "personal authentication," "explosives detection," and "suspicious person tracking technology," Hitachi has been developing security technology that promotes safety and convenience. Linking this technology with IT systems makes it possible to detect explosives inside a person's luggage, identify that person's movements within the facility, and keep track of the individual's location. These Hitachi solutions also enable highly convenient security services necessary for safety evaluation by checking which people and items are safe, based on the results of personal authentication and detection of explosives.

### Biometric Technology for Smooth and Accurate Personal Authentication

Today attention is focusing on difficult-to-fool biometric authentication technology that can protect against trespassing by suspicious individuals. One form of biometric technology is finger vein authentication. By requiring users to place their fingers in a specified location, this can cause bottlenecks to the flow of people through a space as they stop at checkpoints. To improve this situation, Hitachi has developed Finger Vein Authentication Technology for Smooth and Accurate Walkthrough-style Personal Verification. This allows personal authentication of users merely by having them hold up their fingers while walking past the equipment. By instantaneously detecting a vein pattern on a finger, this technology eases congestion by allowing people to pass through gates more quickly, even when they hold up varying numbers of fingers or present their hands in different positions or orientations.

Large facilities are often equipped with multiple units operated through touchscreens, such as ATMs, ticket vending machines, or check-in stations. Hitachi is now developing technology that can enable personal authentication while a user is operating the unit, by taking both a camera image of the user's face and an infrared image of the finger vein pattern. This technology could allow for highly accurate control of persons within the space.



Walkthrough-style finger vein authentication gate.

### Efficient, Fast Explosive Detection Technology

Hitachi has developed a device that can rapidly detect substances adhering to an object or person, such as the raw materials for an explosive. This technology uses pipes to collect air samples from multiple points within the facility at the same time, pulls the air samples into a material analysis device, and determines the location of raw materials from the information obtained by comparing different combinations of those spatially dispersed samples, among other steps. This allows the quick, efficient detection of dangerous material without the need to use multiple expensive mass spectrometers.

### Tracking Suspicious Persons with Security Camera Imagery

Hitachi has developed tracking technology that can quickly and accurately follow a suspicious figure inside crowded facilities via fragmentary data, such as the color of clothing or luggage, or the subject's movement history—even if a security camera has not captured the person's face. The product automatically extracts and stores in a database data on the characteristics of different parts of a person's face or upper body, as well as information on the route taken. The associated information can be used to track the movement of a person.

## Case 2: “Defense in Depth” to Protect Against Rising Cyber Attack Threats

Particularly in newly emerging economies, installation is underway of social infrastructure that forms the basis for economic development. At the same time, demand for renovation of social infrastructure is also growing in developed nations, where such infrastructure is aging fast. In response to these needs and in order to actualize highly reliable systems at a low price, we have seen increasing usage of general-purpose platforms that can be used in multiple social infrastructure control systems. And as infrastructure has grown more convenient, we have increasingly networked it to other devices or systems, thus increasing connectivity to the Internet as a whole.

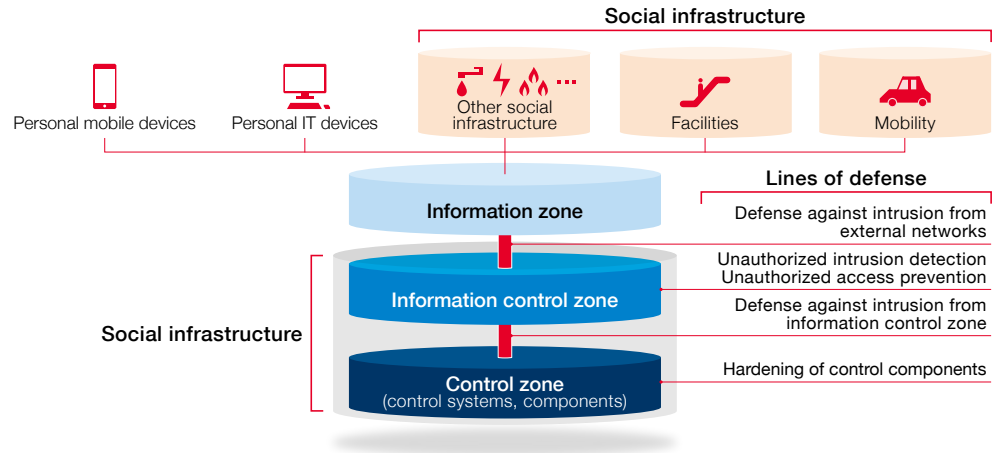
As a result, control systems for social infrastructure have taken the first steps from being a closed environment to becoming an open one, due to the global sharing of technology and their connections to the digital sphere. Their risk of suffering cyber attack has increased accordingly. Control systems for social infrastructure are expected to continue providing service 24 hours a day, 365 days a year, and if this infrastructure stops even briefly, the damage could expand and paralyze urban functionality. Particularly in the field of cybersecurity, where new viruses and software allowing fraudulent operation of systems are constantly being developed, it is increasingly difficult to head off all potential problems during the development stage. In the event of an attack, the key is to issue a warning quickly and respond instantaneously in order to minimize the damage.

### “Defense in Depth” to Minimize Damage to Control Systems

Hitachi provides products and solutions to implement security measures for the control systems that support social infrastructure, taking into consideration the need for this infrastructure to operate reliably over the long term and the factor of a rising tide of cyber attacks.

Hitachi focuses on “defense in depth” when strengthening security for control systems. For example, we enhance security by establishing defense points in several layers of a system. If the outermost firewall is pierced then there is still another security layer after that one, and further layers inside of that. First, an outermost layer guards against intrusions from the network into control systems, or leaks. For particularly critical systems, we provide unidirectional connectivity devices that block off access from the external network. We provide units for monitoring and rejecting untrustworthy PCs to quickly detect an attacker or virus that has penetrated the system and to prevent access to important data or functionality. We are also developing solutions that use special decoy servers to recognize malware that has penetrated at an early stage, capture it, and analyze it. Hitachi solutions promote stronger security functionality overall alongside the hardening of each component of the control system.

### Enhancing Security for Control Systems



The increasingly networked nature of social infrastructure means that a threat to one type of infrastructure is a threat to the entire network. All infrastructure areas must equip themselves against attacks from the information zone. Hitachi develops solutions to swiftly detect unauthorized access and prevent intruders from reaching valuable data and functions. By hardening each component of a control system, we enhance its security capabilities as a whole.

### Contributing to the Establishment of International Standards

As needs for social infrastructure rise around the world, that infrastructure is increasingly being networked. If the security of improperly configured social infrastructure is compromised, the effect can be propagated around the world. In order to boost the security in control systems on a global level, it is an urgent task to establish security guidelines and countermeasures that can be shared and evaluated globally. Various governmental bodies, standards organizations, and industry associations are now working to establish standards for the security of control systems. Hitachi is establishing guidelines for securely constructing control systems based on the specifications in established standards while also participating proactively in pilot projects to enable operators to obtain international security certifications in Japan as well. We are contributing to standardization activities directed at the development of security technology infrastructure.

Furthermore, Hitachi has participated since the beginning in an industry-government-academic joint Control System Security Center (CSSC) that was established to safeguard the security of critical infrastructure control systems. The CSSC performs a comprehensive range of activities, from R&D, international standardization activities, certification, personnel development, and public awareness promotion to the validation of security for all manner of systems. Hitachi is collaborating with the organization to promote the improvement of control systems' security, through activities including joint research into measures to enhance control system security, the use of simulated plants for control system training, and the security auditing of control equipment.

### Case 3: Data Integration to Boost Coordination in Disaster Response

As the world faces increasingly serious risks from climate change, threats like natural disasters and abnormal weather are climbing. Urban functionality is increasingly advanced and complex today, and the damage resulting from a natural disaster can be higher than ever as a result. In an emergency, when circumstances are shifting from one moment to the next, minimizing the damage done to social infrastructure and enabling the rapid restoration to ordinary life, while placing top priority on the saving of lives, requires all involved organizations to cooperate and make decisions in a swift and sound manner.

To that end, we must first strengthen monitoring functionality across all of society and rapidly collate the needed data. It is also vitally important to organize, categorize, and synthesize the collected data, so that it can be shared across the relevant organizations in order to rapidly analyze the situation and predict how it will unfold.

Hitachi develops disaster-prevention and -response solutions that incorporate the “OODA loop” (observe, orient, decide, act)\*1 decision-making concept as an operational paradigm.

\*1 This sequence of steps was originally devised in the 1970s by the US Air Force as a model for real-time decision making.

#### Rapid Decision Making with the OODA Loop

The OODA loop is a theory that enables swift and sound decision making, while repeating the cycle of observe, orient, decide, and act. In the “observe” stage, we rapidly collect data from various sensors such as seismographs, water level monitors, observation cameras, satellites, and unmanned aerial vehicles (UAVs) and detect abnormalities. In the “orient” stage, we synthesize the collected data, conduct risk simulations of potential damage, and provide supplementary data on possible future developments or situations that may develop in order to grasp the ongoing situation. In the “decide” stage, we support an efficient, effective command structure for rescue and restoration, enabling rapid decision making. And in the “act” stage, we provide functionality for managing the logistics of distribution instructions, inventory control, requests for relief supplies, and community services like safety verification and management of evacuation sites, all while supporting rescue and rebuilding operations.

#### Interagency Cooperation with the Integrated Disaster Management Information System

The Integrated Disaster Management Information System of Japan’s Cabinet Office is a solution for disaster prevention and disaster response that Hitachi provides. Its main purpose is to promote the sharing and delivery of disaster readiness and response information held by national and local government bodies while quickly evaluating the scope of a disaster that has occurred. Its central functionality, utilizing the Geographic Information System (GIS), is the registration and utilization of disaster-prevention data. This allows the collection and sharing of disaster-prevention data among organizations involved in disaster response and provides functionality for the quick evaluation of earthquake damage by running simulations on the scope of damage when an earthquake has occurred. Building on the Japanese government’s Fundamental Plan for National Resilience, Hitachi expects to roll out further improvements in the transmission and sharing of data, not only at the national level but also among local governments, designated public institutions, and citizens. We are also implementing upgrades to improve information handling, based on the results of studies by various governmental working groups.

Hitachi is also extending its observation to data passing through social networking services like Twitter, blogs, and message boards, in order to improve its grasp of unfolding disaster situations. We are developing systems to quickly assess these situations by creating map-based visualizations from data found on social networks and providing data that will be useful in decision making.

Hitachi will continue pursuing research and development that integrates various data collected when a disaster occurs and produces usable outcomes as a contribution to disaster-response activities, thereby helping to realize a safe and secure society. We hope to contribute to disaster mitigation by providing systems that effectively support decision making and on-the-ground activities when disasters happen.

### Future Outlook

#### **Providing total technology solutions covering broad fields, we aim to optimize social infrastructure security around the world.**

By connecting many different physical components of its society via IT, Japan has achieved an advanced social infrastructure. Today, though, the threats to social infrastructure, including natural disasters and cyberterrorism, have become increasingly diverse and complex. Hitachi provides security technology in a wide range of fields, from control systems to disaster prevention. By crafting not just individual systems but total solutions, we hope to contribute to improving the safety and security of social infrastructure as a whole. We are advancing services taking the technology we have developed in many business areas and utilizing them holistically in order to maintain the security of systems as a whole.

The ability to set forth clear directions and management ability that can utilize security technology appropriately are vital in opposing the rapidly expanding threats we face today. Standardization aimed at strengthening crisis management has also become indispensable to the global community. Hitachi is contributing to standardization activities that promote enhancing and extending security around the world, in accordance with the technical trends of the international standards field.

To help ensure social infrastructure security on a global scale, we must have personnel with mastery of information, control, and many other systems who can determine customers' most pressing needs and address them appropriately. Hitachi will continue to improve its cultivation of global human resources who are equipped with the skill and mental acumen to handle the task of social infrastructure security optimization around the globe.



# FOUNDATION

## for Promoting CSR Management

**Our society faces a wide range of problems, including global warming, poverty, and social discrimination. Demand is growing for corporations to address these problems. Listening to the expectations of the public and incorporating those voices into our business activities is a way to enhance Hitachi's credibility in society. By sharing values with all stakeholders and integrating CSR and management strategies, we will aim to balance the sustainable growth of society with our economic growth as a global company.**

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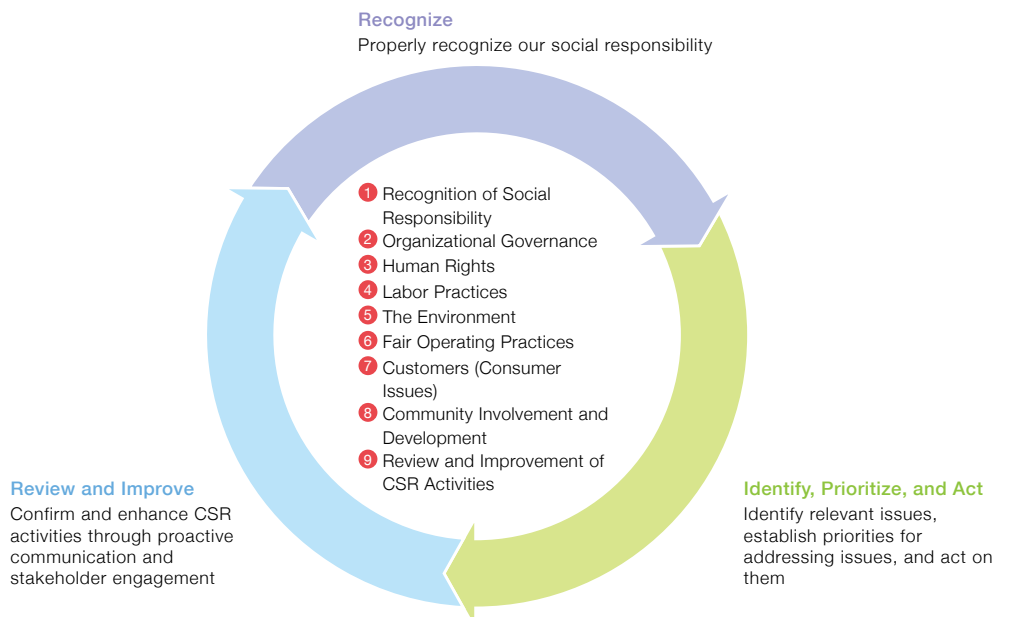
## CSR Management

**With our Corporate Credo of contributing to society through the development of superior, original technology and products, we strive to realize a sustainable society by reflecting social and environmental aspects of the expectations of global society with our management through communication with stakeholders.**

### Hitachi's CSR Activities

To realize the Hitachi Group Vision, which draws on our Corporate Credo and Founding Spirit that form the core of our CSR, we have been sharing throughout the Group our CSR policy, created in 2005, as the basis of our CSR activities. Looking toward the next Mid-term Management Plan that will start from fiscal 2016, we have shifted the CSR Policy to a framework based on ISO 26000 to further integrate management and CSR strategies. From fiscal 2014, we have been further improving communications with our stakeholders to recognize and fulfill our social responsibilities. We will also reinforce the PDCA cycle to ensure execution of our activities and to improve the quality of our management.

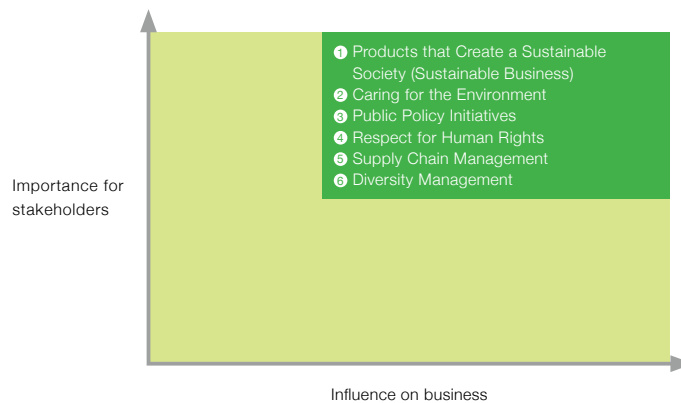
### CSR Management Framework





## Material Issues for Hitachi

We use a materiality process based on dialogue with stakeholders to identify material issues. To integrate our management strategies and CSR, we reflect in our activities the material issues related to the key management policies in our Mid-term Management Plan and seek to materialize CSR in line with our management strategy. Moreover, we are currently engaged in Group-wide discussion on identifying new material issues in line with global trends.



### Selection Process for Material Issues

To select material issues, we evaluate and verify sustainability issues—which are identified through dialogue with stakeholders, such as international organizations, investors, and NGOs, as well as by monitoring public policy trends—from two dimensions: importance for stakeholders and influence on business. Importance for stakeholders includes human rights, international development, the environment, reporting, ethics, and regional and international demands. Influences on business are assessed from the global, fusion-related, and environmental perspectives, the main points of our 2012 Mid-term Management Plan, as well as the perspectives of innovation, risk, reputation, and cost effectiveness.

### Material Issues and Reporting

The treatment and wording of the six material issues are adjusted flexibly in our sustainability reports in accordance with stakeholder demands and revisions to international guidelines, including those issued by the Global Reporting Initiative (GRI).

Given the focus of the GRI G4 guidelines on stakeholder engagement, we report on public policy initiatives within this framework under the heading “Working with Governments and Public Policymakers.” Meanwhile, in light of global trends, we report on diversity management in the section titled “Diversity and Inclusion” to clarify Hitachi’s position.

## CSR 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. We are sharing the Hitachi Group CSR Statement and Mission, created in fiscal 2014 to lay out the goals of the new organization, with in-house companies and Group companies.

To promote CSR across the whole Group, the CSR and Environmental Strategy Division, together with CSR-related departments at Hitachi, Ltd. (the CSR Promotion Team\*<sup>1</sup>) and CSR departments of in-house companies, Group companies, and regional headquarters outside Japan, hold regular meetings to share a common direction and develop Group-wide CSR programs and initiatives.

To fulfill our social responsibilities, as well as to seek sustainable growth as a global company, we communicate with stakeholders in and outside of Japan and take a proactive approach to incorporate global social issues into our management strategy, while continuously striving to improve the quality of our management.

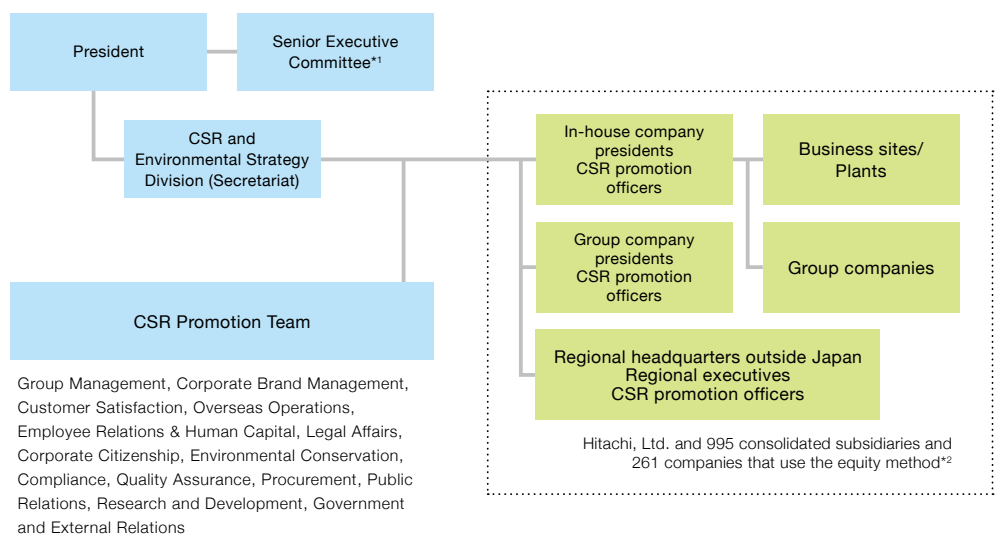
\*<sup>1</sup> CSR Promotion Team: Develops CSR initiatives for every CSR-related department and executes these throughout the Group.

### Hitachi Group CSR Statement and Mission

We strive to realize a sustainable society by properly understanding global social and environmental expectations through communication with our stakeholders and integrating those expectations into our management:

- CSR and environmental initiatives that contribute to solving social issues
- Governance that realizes sustainable management
- Communication that fosters mutual understanding with stakeholders

### Structure of Hitachi Group CSR Promotion



\*<sup>1</sup> Senior Executive Committee: Develops CSR management policies at the executive level.

\*<sup>2</sup> As of March 2015.

## Hitachi R&D and Intellectual Property

**It is Hitachi's aim to contribute to the creation of a prosperous society by driving innovation utilizing its advanced technologies. To realize this, three organizations were established to fulfill the missions of collaborative creation with customers, technology innovation, and exploratory research. Hitachi will contribute to resolving increasingly global, complex societal issues through the Social Innovation Business.**

### Research and Development

#### Realignment of the R&D Organization and Research Strategy

At Hitachi, R&D is being accelerated as part of a strategy to achieve growth in the global market, spearheaded by the Social Innovation Business. In April 2015, the Central Research Laboratory, Hitachi Research Laboratory, Yokohama Research Laboratory, Design Division, and the overseas research centers were realigned along research strategy axes resulting in the establishment of four Global Centers for Social Innovation, nine Centers for Technology Innovation, and the Center for Exploratory Research.

“Contributing to society through the development of superior, original technology and products” has been Hitachi's Corporate Credo since its foundation, and under this Credo, Hitachi has been pursuing world-leading R&D. The realigned research organization will continue to adhere to this Credo and, at the same time, firmly establish a customer-driven research framework to co-create solutions to resolve issues, by promoting the following:

- (1) Position researchers close to customers to enhance co-creation
- (2) Create innovative technology meeting customer needs
- (3) Address future societal issues together with national governments and regional communities

New growth will be led by R&D that goes beyond generating technology to also drive innovation.

#### Establishment of an R&D Organization to Lead Hitachi's Global Growth

##### Global Centers for Social Innovation

The Global Centers for Social Innovation (CSI) were formed by integrating the Design Division, part of the Yokohama Research Laboratory, and overseas research centers. They serve as the frontline organization with researchers positioned in four regions—the Asia-Pacific, North America, China, and Europe—to identify issues together with customers and co-create new solutions. CSI consists of approximately 500 people in total, with about 200 in Japan and 300 in other countries. Together with customers, CSI uses original service design methods to visualize issues, as well as to discuss and formulate visions toward resolving those issues. Drawing on the technology platforms from the Centers for Technology Innovation and Hitachi's innovative products, CSI will lead the development of solution prototypes and verification of customer value through proof-of-concept tests.

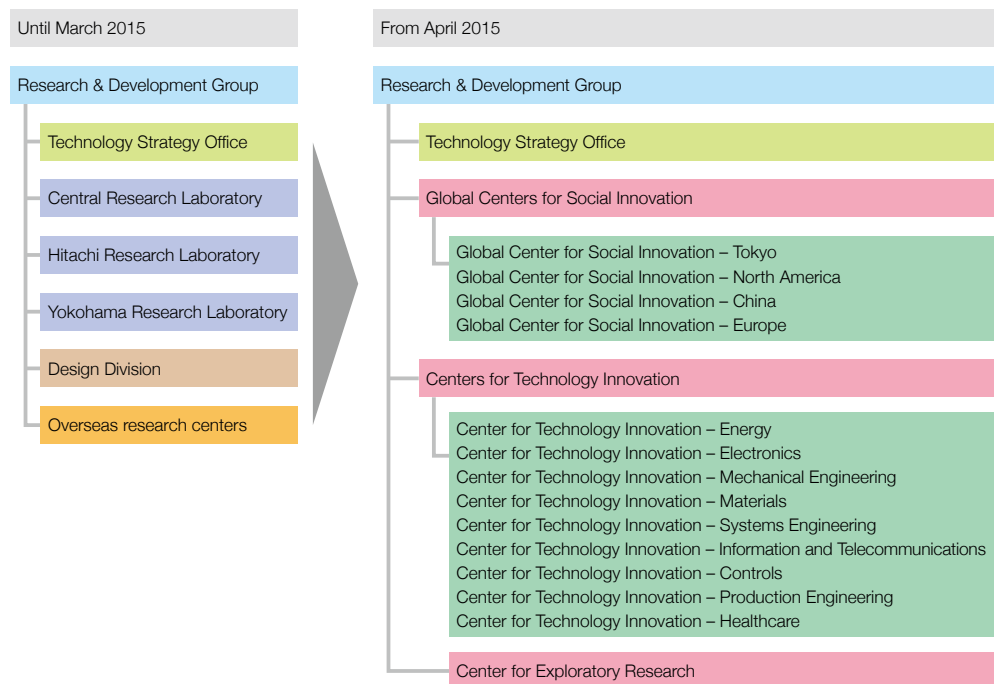
##### Centers for Technology Innovation

The Centers for Technology Innovation (CTI) were formed by integrating the Hitachi Research Laboratory, Yokohama Research Laboratory, and a part of the Central Research Laboratory, to establish nine centers: Energy, Electronics, Mechanical Engineering, Materials, Systems Engineering, Information and Telecommunications, Controls, Production Engineering, and Healthcare. CTI consists of approximately 2,000 people dedicated to developing technology platforms and convergence for solutions being developed by CSI, as well as pursuing R&D for innovative products.

### Center for Exploratory Research

The Center for Exploratory Research conducts cutting-edge research with a long-term perspective to realize the continuous sustainable growth of Hitachi, as well as pursuing open innovation with various research institutes worldwide to create the seeds for the future Social Innovation Business. Future societal issues are captured through discussion with customers and regional communities, and a vision is drawn up to resolve those issues. This exploratory basic research is carried out by approximately 100 people, pioneering new frontiers.

### Research & Development Group Organization



### Type of Research Pursued by the New Organization

The new organization leverages Hitachi's strengths in both infrastructure technology and IT by combining the two to provide solutions resolving issues that customers face.

Creative innovations will be developed together with customers by globally deploying cross-functional solutions in Hitachi's key business areas, such as energy, urban development, transportation, and healthcare.

Furthermore, Hitachi analyzes how it can contribute to society from both a short- to medium-term perspective of a few years ahead and a long-term perspective of 100 years ahead to set its research agenda.

## R&D Planning and Budget

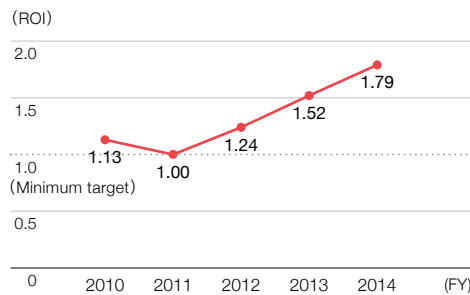
R&D investment remains steady at about 4% of Hitachi Group revenue, and R&D efficiency as measured by return on investment is used as one Hitachi Group management index.

In Hitachi, Ltd., R&D investment is allocated strategically by target. Research investment can be broadly divided into two types: Sponsored or Advanced Sponsored Research, financed by in-house and Hitachi Group companies based on business roadmaps for current and next-generation businesses, and Frontier and Platform Research, based on the mid- to long-term technology plan developed by the Technology Strategy Office. The goal of Sponsored and Advanced Sponsored Research is to expand and enhance core businesses, targeting practical application within three to five years. Frontier and Platform Research aims to create innovative technology for future core businesses.

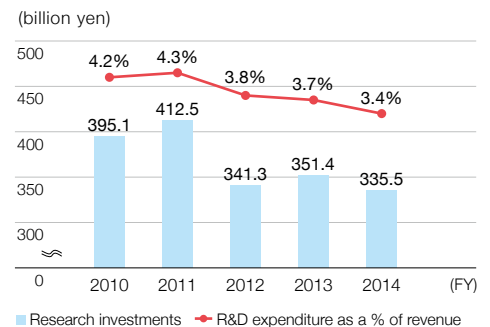
Hitachi will continue to pursue R&D in alignment with management strategy to contribute to the rapid global deployment and expansion of business.

### Key Indicators

#### • R&D Efficiency (Hitachi Group)



#### • R&D Expenditure (Hitachi Group)



## Strengthening Global R&D

The new Global Centers for Social Innovation (CSI) have established sites in the Asia-Pacific region, the Americas, China, and Europe, which serve as frontline organizations with researchers assigned close to the customer base to promote the co-creation of innovation. In order to be able to fully address regional needs, approximately 300 of the 500 researchers belonging to the CSI are regionally employed non-Japanese nationals.

Customer collaboration methodology developed through design and service research are used in Tokyo to co-create solutions with key customers in the Asia-Pacific region. Asia-Pacific research centers also include Bangalore, India and Singapore.

In the Americas, research centers are located in the United States in Santa Clara, California, and Farmington Hills, Michigan, and in São Paulo, Brazil. These centers are pursuing collaborative creation with customers for advanced solutions in areas such as energy, communications, finance, and healthcare, based on big data analytics platforms developed by Hitachi.

In China, research centers are located in Beijing and Shanghai. Collaborative creation is being strengthened with key elevator, escalator, ATM, and other customers to realize new solutions that address government policy, such as China's "New Urbanization" policy and industrial policies for low carbon emissions and other goals.

In Europe, research centers are located in the United Kingdom, France, Germany, and Denmark. Researchers here take part in new market creation by participating in standardization activity, which Europe leads, and co-create solutions in collaboration with major institutes to help industrialized countries resolve issues facing matured societies.

## Open Innovation

In order to promote innovative technology development that cannot be achieved by one company alone, Hitachi collaborates with research institutes, universities, and customers both in and outside of Japan to maintain an open R&D environment.

To date, Hitachi has pursued basic research in physics to lead innovation for future computing, devices, and materials through the Hitachi Cambridge Laboratory, established in 1985 within Cambridge University in the United Kingdom, and metallurgic materials through the joint research laboratory established with Shanghai Jiao Tong University in fiscal 2012. In fiscal 2014, Hitachi collaborated with 85 research institutes outside Japan and 246 research institutes in Japan. Hitachi has also been strengthening ties with researchers overseas through programs such as the Hitachi Research Visit Programs (HiVIPS), established in fiscal 1985, to invite researchers to work in the labs in Japan under fixed-term employment.

From fiscal 2015, the new Center for Exploratory Research will serve as the hub for open innovation to generate seeds for Hitachi's next Social Innovation Business. Basic research will be further enhanced through contributions from open innovation to resolve societal issues.

## R&D Ethics Reviews

Hitachi has established an ethical review committee based on the "Ethical Guidelines for Human Genome/Gene Analysis Research" from the Ministry of Education, Culture, Sports, Science, and Technology and the "Ethical Guidelines for Clinical Research" from the Ministry of Health, Labor, and Welfare. This committee reviews new projects before the research starts.

The Hitachi ethical review committee\*<sup>1</sup> was established in September 2000, soon after we began to handle human genetic analysis information. It was the first ethical review committee to be established by a private company in Japan. Today this committee, which has a majority of external experts, carries out reviews prior to human genetic analysis, activities associated with genetic analysis, and clinical research.

All Hitachi business divisions and Group companies that conduct activities falling under the supervision of the committee are expected to show a high level of corporate social responsibility and their researchers and staff to hold high ethical standards.

\*<sup>1</sup> On October 1, 2015, Hitachi will shift its focus of interpretation, approaching these as "Ethical Guidelines for Medical and Health Research Involving Human Subjects."

## R&D Case Examples

### Holography Electron Microscope with the World's Highest Point Resolution

Electromagnetic field measurement with atomic resolution is crucial for the development of highly functional, next-generation materials such as high-performance magnets, large-capacity secondary batteries, ultra-low-power-consumption memory devices, and high-temperature superconductors. With funding from the Japan Society for Promotion of Science since March 2010 under the Japanese Cabinet Office's FIRST Program (Funding Program for World-Leading Innovative R&D on Science and Technology), Hitachi developed an atomic-resolution holography electron microscope accelerated at 1.2 megavolts, enabling atomic-level observation of electromagnetic fields.

This project resulted in the development of a high-speed electron beam with the full range of energy to obtain high resolution, an electron gun emitting high-brightness electron beams with long-term stability, and facilities technology to eliminate noise from vibrations,



Atomic-Resolution Holography  
Electron Microscope.

sounds, and ambient magnetic fields that can affect electron beams and observation specimens. These technologies enabled the creation of the first ultra-high-voltage electron microscope with a spherical-aberration corrector to account for focus problems. The microscope achieves the world's highest point resolution of 43 picometers (trillionths of a meter). This microscope will contribute to future advances in quantum mechanics and condensed-matter physics, as well as to the development of new materials that will support a sustainable society.

### Walkthrough-style Finger Vein Authentication for Smooth and Accurate Personal Verification

Finger vein authentication is a biometric identification technology in which near infrared light (light under which veins can be clearly seen) is used to observe and authenticate an individual's finger vein pattern. In addition to current use cases, such as in ATMs and other bank terminals, admission control, mobile devices, and automobiles, Hitachi has developed a highly accurate personal verification walkthrough-style finger vein authentication system for use at security gates in large-scale facilities with heavy traffic. With this technology, the position and orientation of several fingers are instantaneously detected as a person walks up to a gate, allowing him or her to pass smoothly through the gate without worrying about proper presentation of the fingers for scanning. Infrared light is directed to the fingers from optimal directions according to the position and orientation of the fingers presented. By combining the vein pattern of each finger, the system achieves greater verification accuracy than is possible with conventional single-finger readers. Hitachi will seek to further expand its security solution business with this core technology.



Walkthrough-style finger vein authentication.

This system is also covered in the Initiatives for Social Infrastructure Security section of this report.

## Intellectual Property

### Actions in the Intellectual Property Field

Intellectual property (IP) is a key element of Hitachi's business strategy. We protect the innovations emerging from our R&D, as well as the Hitachi brand, on the basis of these IP rights, while working on international standards to grow our markets.

### Building a Global Patent Portfolio

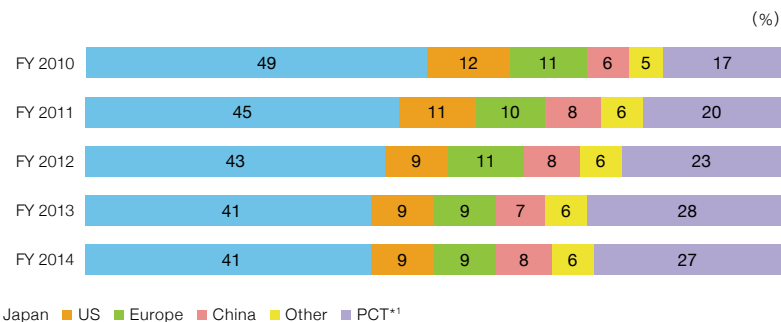
One of the IP activities supporting our global operations is developing a global patent portfolio to ensure worldwide protection for innovations emerging from our R&D and to prevent other companies from using our technologies without authorization. The portfolio also enables us to demonstrate the advantages of those technologies to customers and to cooperate with other companies through cross-licensing. We boosted our patent application ratio outside Japan from 47% in fiscal 2009 to 59% in fiscal 2014. 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 San Francisco in the United States, Beijing and Shanghai in China, and Munich in Germany 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, sending trainees to IP law firms and Group companies in Europe and the United States and to study abroad. In fiscal 2014, four trainees went to the United States, two to Germany, and one to the United Kingdom.

### Key Indicators

#### • Patent Application Ratios by Country or Region



\*1 International applications filed for Patent Cooperation Treaty coverage.

### Respect for Intellectual Property

We respect the intellectual property rights (IPRs) of others, as we expect them to respect ours. We follow the Hitachi Group Codes of Conduct and conduct preliminary searches of others' patents when undertaking R&D on new products and technologies in order to avoid IPR infringements. For IPRs that belong to others, we obtain licenses from IPR holders before we use the IP. If any company is found to have infringed Hitachi's IPRs, we encourage the counterparty to acquire the necessary license and take legal action if necessary.

### Anti-Counterfeiting Activities

Protecting the Hitachi brand is crucial for supporting our global operations. We operate a rigorous regime against such infringements as making and selling counterfeit goods carrying the Hitachi brand and illegally applying for or registering trademarks similar to the Hitachi brand. Until recently, many counterfeit goods were made in China, but in the past several years counterfeit manufacture has been discovered in other countries as well. In 2014, counterfeit manufacturers were raided in a large scale in Thailand and Pakistan as the result of our approach.

We are also educating consumers about these counterfeit goods. In 2014 we participated in an event held by customs authorities of the United Arab Emirates and the emirate of Dubai in particular to teach children and students about this problem.

As counterfeit goods and their sales routes have become more sophisticated, providing information about these goods to local police, customs officers, and other public officials and garnering their cooperation has become critical for effectively combating counterfeit products.

In fiscal 2014 we became the first Japanese company to participate in an intensive border-control operation conducted in Africa by the World Customs Organization, cooperating to strengthen policing of counterfeit goods distribution in Africa.



## International Standardization Activities



Hitachi President and COO Toshiaki Higashihara delivering the keynote address at the 2014 IEC General Meeting.



Hiromichi Fujisawa, Corporate Chief Scientist of Hitachi's R&D Group, received the Prime Minister's Award for Industrial Standardization.

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 international secretaries, chairpersons, or in other key positions of international standards developing organizations, such as the International Electrotechnical Commission (IEC) and the International Organization for Standardization (ISO).

Hitachi was a leading sponsor of the 2014 IEC General Meeting in Tokyo. Hitachi President and COO Toshiaki Higashihara delivered the keynote address in the opening ceremony. His speech asserted that international standardization should be emphasized as an arena for collaboration among a wide range of stakeholders.

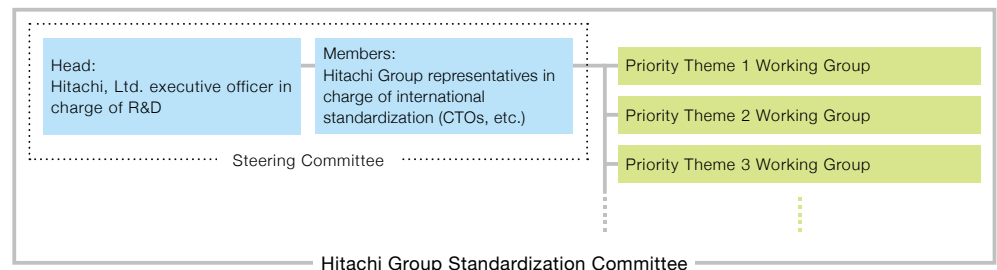
The Hitachi Group Standardization Committee was established to work for coordination among the Hitachi Group toward international standardization. The steering committee\*1 of this body determines priority themes and promotes standardization activities by creating working groups for each theme.

Our international standardization work is highly regarded outside Hitachi. In fiscal 2014, Dr. Hiromichi Fujisawa, Corporate Chief Scientist of the Research & Development Group, received the Prime Minister's Award for Industrial Standardization. The Ministry of Economy, Trade, and Industry conferred the highest honor on Dr. Fujisawa, who served as vice president of the IEC for six years, in recognition of his achievements in advancing international standardization.

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 in-house companies and Group companies. The committee is responsible for decisions on cross-departmental and company-wide standardization projects.

### Hitachi Group Standardization Committee



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

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

## Stakeholder Engagement

**We put great importance on communication with our stakeholders at various areas of our business activities. We are working on developing more effective means of communication, as well as on information disclosure to build relationships of greater trust with our stakeholders.**

### 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 Issues	Main Divisions	Means of Communication	Pages
Customers	Creation of better products and services, response to complaints, appropriate disclosure of information on products and services	<ul style="list-style-type: none"> <li>Quality Assurance</li> <li>Sales</li> </ul>	<ul style="list-style-type: none"> <li>Customer satisfaction activities</li> <li>Marketing</li> <li>Website</li> <li>Advertisement activities</li> </ul>	<ul style="list-style-type: none"> <li>Quality Assurance Activities pp.144–146</li> <li>Customer Satisfaction pp.147–151</li> </ul>
Shareholders and Investors	Facilitation of capital procurement through appropriate disclosure of information required by law and proactive distribution of corporate information	<ul style="list-style-type: none"> <li>Public Relations and IR</li> </ul>	<ul style="list-style-type: none"> <li>Announcements of financial results (quarterly)</li> <li>General shareholders' meetings (annual)</li> <li>IR events, one-on-one meetings (about 740 times/year)</li> <li>IR tools: annual reports, business reports, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Communication with Shareholders and Investors pp.152–155</li> </ul>
Suppliers	Building of fair and sound business relations, smooth information sharing toward better partnerships	<ul style="list-style-type: none"> <li>Procurement</li> </ul>	<ul style="list-style-type: none"> <li>Procurement activities</li> <li>Supplier meetings</li> <li>CSR monitoring (200 companies/year)</li> <li>CSR audits (20 companies/year, annual)</li> </ul>	<ul style="list-style-type: none"> <li>Supply Chain Management pp.118–123</li> </ul>
Employees	Active utilization, proper treatment, and promotion of occupational health and safety of human capital	<ul style="list-style-type: none"> <li>Public Relations</li> <li>Human Capital</li> </ul>	<ul style="list-style-type: none"> <li>Intranet, in-house newsletters</li> <li>Training (fiscal 2013: average 37.9 hours/person)</li> <li>Town hall meetings between senior management and employees (45 times/year)</li> <li>Employee surveys (annual)</li> </ul>	<ul style="list-style-type: none"> <li>Diversity and Inclusion pp.124–134</li> <li>Employee Health, Safety, and Welfare pp.135–138</li> <li>Global Human Capital Development pp.139–143</li> </ul>
National and Local Governments, Industrial Associations	Compliance with domestic and foreign laws and regulations, policy recommendations, participation in industry-government-academia collaborative projects	<ul style="list-style-type: none"> <li>The Government &amp; External Relations</li> </ul>	<ul style="list-style-type: none"> <li>International conference participation</li> <li>Policy council participation</li> </ul>	<ul style="list-style-type: none"> <li>Stakeholder Engagement pp.58–63</li> </ul>
Local Communities	Fulfillment of responsibilities as corporate citizen, involvement in local communities	<ul style="list-style-type: none"> <li>Social Contribution</li> <li>All Business Divisions</li> </ul>	<ul style="list-style-type: none"> <li>Contribution to local communities through business</li> <li>Participation in volunteer activities</li> </ul>	<ul style="list-style-type: none"> <li>Social Contribution Activities pp.156–168</li> </ul>
Academic Associations and Research Institutions	Promotion of technological innovations, participation in industry-government-academia collaborative projects	<ul style="list-style-type: none"> <li>Research and Development</li> </ul>	<ul style="list-style-type: none"> <li>Open innovation (joint research): collaboration with 246 research institutes in Japan, 85 outside Japan</li> </ul>	<ul style="list-style-type: none"> <li>Hitachi R&amp;D and Intellectual Property pp.50–57</li> </ul>
NGOs and NPOs	Incorporation of diverse public opinions, promotion of stakeholder-focused management, social contribution through nonprofit activities	<ul style="list-style-type: none"> <li>CSR Promotion</li> </ul>	<ul style="list-style-type: none"> <li>Stakeholder dialogue (2 times/year)</li> <li>Dialogue through collaboration</li> </ul>	<ul style="list-style-type: none"> <li>Social Contribution Activities pp.156–168</li> </ul>
Global Environment	Global warming prevention, resource conservation, and ecosystems preservation.	<ul style="list-style-type: none"> <li>Environment</li> <li>All Business Divisions</li> </ul>		<ul style="list-style-type: none"> <li>Environment pp.64–112</li> </ul>

## 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. Continuing from fiscal 2013, we conducted the Global Brand Campaign in 18 countries. The campaign uses the slogan "SOCIAL INNOVATION—It's Our Future," 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 held the Hitachi Social Innovation Forum in locations worldwide, including India, Brazil, Singapore, Germany, Turkey, and Japan, showcasing examples of the Social Innovation Business being conducted in each region. Through speeches, panel discussions, and panel exhibits, we presented 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

### Spreading Awareness of the Vision to Employees Group-wide

To help solve social issues by promoting understanding of and acting on the Hitachi Group Identity and to realize the Hitachi Group Vision, 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 realize the Group Vision. To promote understanding of the Hitachi brand, we launched the Inspiration of the Year Awards in fiscal 2003 to share within Hitachi those activities that have 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 2014, the awards saw 255 applications from China, Europe/Africa, India, North America, Southeast Asia, and Japan. Outstanding activities from each region were highlighted on the intranet, and the President and COO gave out the awards at a ceremony held at our Tokyo headquarters.

To further instill the Hitachi Group Vision in our employees, we shared a behind-the-scenes video on the making of the *Hitachi Vision Movie*, a visual depiction of the Hitachi Group Vision. We also updated the Hitachi Vision Book, a straightforward explanation using illustrations and photographs, and offered e-learning units setting forth the factors that went into the Hitachi Group Identity and Hitachi Group Vision and how they relate to the Mid-term Management Plan. By raising employee awareness of the Hitachi Group Vision through these activities, we will continue to strive to become a company that "delivers innovations that answer society's challenges."

### Accelerating Management-Employee Communication

Since fiscal 2012, we have been organizing town hall meetings bringing together senior management and employees. We held around 80 town hall meetings at operations in and outside Japan during the first two years, and in fiscal 2014, the Chairman and CEO and the President and COO attended 45 meetings in the United States, China, and the Philippines, as well as in Japan and elsewhere.

Ordinary business meetings and conferences are limited in agenda, and our communications to employees via our intranet and other channels tend to be one-way. Town hall meetings, meanwhile, are intended as forums for direct dialogue where employees can gain a real sense of 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 they are involved.

In the town hall meetings, we believe that it is important for senior management to hear the thoughts of front-line 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.

### Working with Governments and Public Policymakers

#### External Relations Initiatives

The social infrastructure field draws particularly strong interest from the public sector. In the task of globally expanding our Social Innovation Business, the government institutions that are the main agents for social infrastructure represent important partners to Hitachi, both as customers and as backers. The Japanese government has implemented a support structure for infrastructure systems that are being exported with the goal of strengthening Japan's industrial competitiveness. Our access to these systems and to government advice is enormously helpful.

In our relations with government institutions outside Japan, we gather policy information from a range of sources, frequently engaging with government officials. This dialogue ensures that we have a solid grasp of local social issues and business needs, allowing us to help build better societies. For Hitachi, relationships with government institutions in and outside Japan are becoming increasingly important.

#### Promoting External Relations

The Government & External Relations Division was established within our headquarters in fiscal 2009 to guide and accelerate the external relations of the entire Hitachi Group. This was in response to our 2015 Mid-term Management Plan, which focuses on the global expansion of our Social Innovation Business, as well as the growing support offered by the Japanese government for infrastructure system exports. Through this division, we are working to strengthen government officials' dialogue with Hitachi senior management and with the external relations staff in our business divisions and Group companies. We intend to provide government institutions with a better understanding of our business and to offer policy recommendations on key comprehensive policy issues with the prospect of stimulating the industry as a whole.

Outside Japan, we have offices in Washington DC and Brussels to monitor policy trends and to manage external relations initiatives in the United States and Europe.

To promote external relations Group-wide, we hold an annual Group meeting to share cases and issues, with an eye to boosting the efficiency of our activities.

### 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. In fiscal 2013, while he was still President, Chairman and CEO Hiroaki Nakanishi was appointed to Japan's Council for Science, Technology, and Innovation (then Japan's Council for Science and Technology Policy). He continues to make recommendations as the council discusses the implementation of Japanese policy in the above areas under the leadership of the Prime Minister, and also attends and contributes to policy discussions at the Government-Labor-Management Meeting for Realizing a Positive Cycle of the Economy.

President and COO Toshiaki Higashihara participates in groups for devising export strategies for government infrastructure, such as the Management Association Infrastructure Strategy Council under the auspices of the Cabinet Secretariat, and has made specific proposals for boosting Japan's infrastructure exports.

Chairman Emeritus Takashi Kawamura is a member of the Ministry of Economy, Trade, and Industry's Study Group for the Creation of Japan's Earning Power, and other experienced Hitachi representatives also take part in various meetings and exchange views regarding policy, making specific recommendations.

### Government Support

METI provides a Global Internship Program to support global human resource development. This promotes important network and cooperative relationships in business development in the host countries as a part of the ministry's support for infrastructure system exports. During fiscal 2012, 2013, and 2014, 20 young Hitachi Group employees took part in this program, which sends junior-level employees from private companies to government institutions and local companies in emerging countries for several months. Participation in this type of program allows Hitachi to more accurately identify the needs of emerging countries and propose the optimal solutions for their particular social concerns, helping to resolve them.

### 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 (Japan Business Federation), where Chairman and CEO Hiroaki Nakanishi has served as vice chair since June 2014, making proposals on cybersecurity measures, as well as chairing the Committee on South Asia, the Committee on Information and Telecommunication Policy, and the Committee on Education and Human Resources Development (as of June 2015). Other executives and employees have roles in numerous other Keidanren committees. As the planning and coordination chair for the subcommittee on Europe, we also urged the Japanese and European governments to pursue early agreement during ongoing negotiations on the Japan-EU Economic Partnership Agreement.

As a member of the Japan Electronics and Information Technology Industries Association (JEITA), we are participating in the development of an industry response to the General Data Protection Regulation on personal data protection currently under consideration in the European Union, as well as the amendments to the Act on the Protection of Personal Information being considered in Japan.

Within the Japan Electrical Manufacturers' Association (JEMA), Hitachi is surveying the status of the development of the social infrastructure in emerging countries, including power generation and transmission facilities, to promote infrastructure system exports. We are also participating in public relations activities—primarily interactions with business operators in these emerging countries—on how Japanese technologies and products can help to solve social issues there.

### **International Conference Participation**

We participate in international conferences to deepen understanding of our business in other countries. For example, in September 2014 we took part in the India-Japan Business Leaders Forum, held when Prime Minister Narendra Modi was visiting Japan, conducting exchanges of views aimed at economic development in both countries. In November 2014, we participated in a meeting of the Japan-US Business Council, contributing to discussions concerning the Trans-Pacific Partnership and energy policy, and in January 2015 we took part in the World Economic Forum in Davos, Switzerland. Additionally, we are participating in the TOMODACHI Initiative, a joint Japan-US cultural and educational exchange program organized by the US Embassy in Japan and the US-Japan Council.

### **United States: Hitachi Corporate Office in Washington DC**

The Hitachi Corporate Office in Washington DC examines the impact of US government legislation on our business activities. To promote mutual understanding and improve business opportunities, we communicate to key stakeholders on how Hitachi can contribute to the growth of US society.

For example, we share information gathered by the Washington office with Group companies, exchanging reports on key laws and regulations that impact management and business, analyzing their business impact, and responding appropriately. To increase the effectiveness of these activities, we cooperate with influential external business associations, think tanks, and academic groups, exchanging opinions with specialists and researchers and working through them to make policy proposals.

As part of the global expansion of our Social Innovation Business, we provide information to policymakers and government representatives on Hitachi's technological expertise to convey, both directly and indirectly, how Hitachi technologies can contribute to the United States.

Since 2009, we have been a joint organizer for the annual Eco-Engineering Forum. In 2014, the focus of the gathering, featuring detailed discussion by specialists, was "The New Eco-System of Information: Harnessing the Potential of Big Data." We also shared the content through pamphlets and a website, distributing this information to relevant bodies. This kind of forum allows us to foster broader understanding of Hitachi's business and technological expertise and to expand our human networks.

### Europe: Hitachi Corporate Office, Europe (HIBRU)

The Hitachi Corporate Office, Europe, located in Brussels, Belgium, is active in regional issues, contributing to policy development through business and programs that boost Hitachi's profile in Europe. We make proposals to EU institutions regarding energy, trade, research and development, environmental policy, CSR, and other areas through business and trade associations like BUSINESSEUROPE, DigitalEurope, and the Japan Business Council in Europe (JBCE). We also participate in a European Commission Product Environmental Footprint (PEF) pilot project as part of our environmental policy activities, exchanging opinions and supporting the development of new policies.

We are involved in ongoing dialogues with representatives responsible for European policy, business associations, and others, mainly via the JBCE. By leading the activity at the JBCE, we have contributed to the policy discussions by proposing amendments to European corporate law covering non-financial information disclosure and conflict minerals legislation. We also contribute to the revision of European strategies for CSR, an area the European Commission is actively working on, by holding roundtable discussions and playing a dynamic role in debate concerning the direction of policy.

Since 1998, we have held the EU Hitachi Science & Technology Forum to deepen understanding of Hitachi's business. In fiscal 2014, the forum took place in Paris, addressing the theme of healthcare. We invited a broad range of stakeholders, including representatives from the French government, corporations, and hospitals, to exchange views on how science and technology can help to solve healthcare issues and improve patients' quality of life through improved cooperation with stakeholders. At the preparatory stage, we pursued exchanges with such policy makers as the European Commission and contributed to the public consultation on the Green Paper on Mobile Health ("mHealth").





■ The woods of Hitachi's Central Research Laboratory, preserving the natural environment of the Musashino area in Tokyo.

## Our Ongoing CSR Activities:



# ENVIRONMENT

**To achieve a more sustainable society, Hitachi has identified the environment as an important management focus and is working to reduce the environmental burden of its business operations. Global warming prevention, resource conservation, and ecosystems preservation are the three pillars of our vision.**

**Committed to helping solve global environmental problems that face humankind, we combine our wide-ranging business activities with our IT solutions to promote global production that reduces the environmental burden of a product throughout its life cycle.**

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## Environmental Management Strategies and Initiatives

### Hitachi's Approach

The world's population, having passed the 7 billion mark in 2011, is expected to reach 9.5 billion by 2050.\*<sup>1</sup> At the same time, worldwide GDP continues to grow. This economic growth—led by emerging countries—has led to global warming, caused by a rise in CO<sub>2</sub> emissions from growing fossil fuel use. The depletion of energy, water, mineral reserves, and other resources due to increased demand, as well as ecosystem destruction and other environmental problems, are also worsening.

Hitachi believes that to solve these environmental problems and to realize a sustainable society where humankind can thrive, we must do everything possible to reduce the burden of human activities on the environment. With the environment as an important management focus, therefore, we are working to reduce the environmental burden of our business operations, as well as to raise awareness of environmental issues among all Hitachi Group employees.

Guided by the Environmental Vision, whose aim is the achievement of a sustainable society, Hitachi's environmental management seeks to attain the goals of the long-term plan Environmental Vision 2025 and the Environmental Action Plan.

\*<sup>1</sup> According to the United Nations report, *World Population Prospects: The 2012 Revision*.

### Our Actions in Fiscal 2014

In fiscal 2014, the second year of the Environmental Action Plan for 2013 to 2015, we were able to match or exceed annual targets in all areas, including contributing to the reduction of CO<sub>2</sub> emissions through products and services, expanding our lineup of Hitachi Eco-Products, and reducing energy use per unit.

- The percentage of Hitachi Eco-Product sales rose to 93%, compared to the fiscal 2014 target of 88%.
- We contributed to the reduction of an estimated 32.19 million tonnes of CO<sub>2</sub> emissions through products and services, exceeding the fiscal 2014 target of 28 million tonnes.
- The rate of reduction in energy use per unit, one of the indicators for Eco-Factories & Offices, was 16%, surpassing the fiscal 2014 target of 13%.
- We began drafting the 2018 Environmental Action Plan for fiscal 2016 to 2018, to be implemented concurrently with the next Mid-term Management Plan to be decided in fiscal 2016.

## Environmental Management

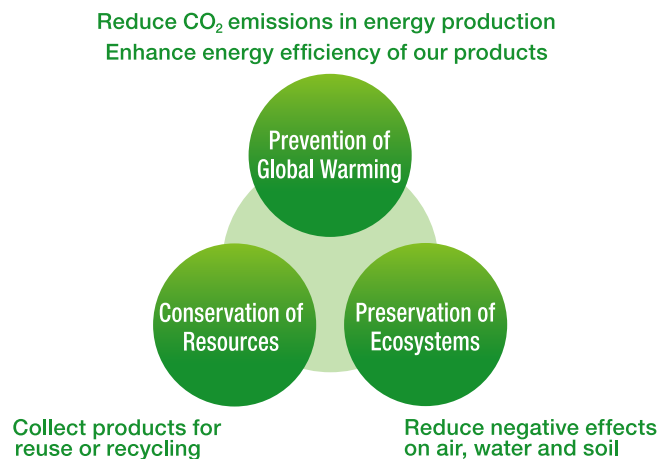
Core Policy >>

### The Hitachi Environmental Vision

At Hitachi, we aim to achieve the environmental management described in our Environmental Vision—which in turn aspires to help create a sustainable society—by employing our company’s resources to reduce the burden of human activities on the environment.

We are committed to global warming prevention, resource conservation, and ecosystems preservation as the three pillars of our vision. Our goal is to achieve a more sustainable society by promoting global production that reduces the environmental burden of a product throughout its life cycle.

#### Hitachi’s Environmental Vision



### Towards a Sustainable Society

#### Our Long-Term Plan: Environmental Vision 2025

The Intergovernmental Panel on Climate Change (IPCC) concluded in the Synthesis Report of its *Fifth Assessment Report*, issued in November 2014, that climate warming is unequivocal and extremely likely to be caused by human activities. This announcement, which reinforced arguments that have been made for some time, confirms once again that reducing CO<sub>2</sub> and other greenhouse gases is essential for the prevention of global warming.

Accordingly, the Hitachi Group Environmental Vision 2025 is a long-term plan that targets the prevention of global warming, one of the major issues that the world is facing today. The Vision states our goal of helping to reduce annual CO<sub>2</sub> emissions by 100 million tonnes by 2025 through improved Hitachi products and services. Our aim is to do our part toward achieving a major reduction in CO<sub>2</sub> emissions by providing our customers with products that supply low-carbon energy, as well as energy-efficient products. To reach these goals, we are working to increase the ratio of Hitachi Eco-Products, which have a reduced burden on the environment, in our product range. We are expanding business opportunities further by working with partners in global markets.

#### Instituting 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 the Hitachi Environmental Vision.

### Hitachi Action Guidelines for Environmental Conservation

- 1 Global environmental conservation is a critical challenge shared by all humans. Hitachi is committed, therefore, to fulfilling its responsibilities by assisting in the realization of an environmentally harmonious and sustainable society as one of its management priorities.
- 2 Hitachi will make efforts to contribute to society by developing highly reliable technologies and production processes, while identifying needs considering concerns related to the prevention of global warming, conservation of resources, and preservation of ecosystems.
- 3 Members of the Board of Directors in charge of environmental conservation are responsible for facilitating appropriate environmental conservation activities. Departments responsible for environmental conservation should endeavor to promote and ensure environmental conservation activities, including improving environment-related rules and regulations and setting goals for environmental burden reduction. These departments should also confirm that their environmental conservation activities are conducted in a proper manner and ensure that these activities are maintained and improved.
- 4 Hitachi will promote globally applicable “monozukuri” with the aim of understanding and reducing environmental burdens at every stage, including product research and development, design, production, distribution, sales, usage, and final disposal.
- 5 Hitachi will investigate and review the environmental impact caused in the course of its “monozukuri” processes. Hitachi will also introduce excellent technologies and materials useful to safeguard the environment, in other words, to reduce environmental burdens through energy and resource saving, recycling, chemical substance management, consideration for the ecosystem, and other measures.
- 6 Hitachi’s environmental conservation efforts are not only to be focused on observing international environmental regulations and those of national and local governments, but also on conserving the environment by implementing voluntary environmental standards when necessary.
- 7 Regarding globally applicable “monozukuri” activities, impact on the local environment and community are to be considered. In addition, measures that meet local communities’ requests should be implemented.
- 8 Hitachi will educate its employees to take action in order to obey environment-related laws, raise their global environmental awareness, and encourage their interest in environmental conservation having a broad overview of society’s activities.
- 9 Hitachi will evaluate potential environmental problems and prevent them from occurring. In the event that any environmental problem occurs, Hitachi will take appropriate measures to minimize the environmental burden.
- 10 Hitachi will make efforts to disclose information on its environmental conservation activities to its relevant stakeholders. Hitachi will also actively communicate with these stakeholders so as to strengthen mutual understanding and forge cooperative relationships with them.

### Promoting the Environmental Action Plan

Our Environmental Action Plan was created and designed to carry out the measures in our Action Guidelines for Environmental Conservation. This plan sets improvement targets for specific areas, and environmental initiatives are promoted by executing and improving activities in every area. To give our environmental strategy a more prominent role in our management strategy, we are promoting the Environmental Action Plan as a three-year plan, aligning it with the Mid-term Management Plan for the Hitachi Group covering fiscal 2013 to 2015.

We have also begun drafting the 2018 Environmental Action Plan for fiscal 2016 to 2018, to be implemented concurrently with the next Mid-term Management Plan to be decided in fiscal 2016.

### Environmental Action Plan for 2013 to 2015: Achievements and Targets

In fiscal 2014, the second year of the Environmental Action Plan for 2013 to 2015, we were able to match or exceed annual targets. We are now accelerating this work to ensure that all our targets are achieved by fiscal 2015, the final year of the plan.

Shown in the tables below are the main indicators for Hitachi's environmental activities. Initiatives corresponding to each indicator are introduced in the following pages.

#### Establish environmental management systems

Action goals	Indicators	Fiscal 2014 targets	Fiscal 2014 results	Achievement level	Final fiscal year (2015) targets
Raise the level of environmental activities (GPs: green points)	GPs in GREEN 21 Environmental Activity Evaluation System	576 GPs	602 GPs	◆◆◆	640 GPs
Ecosystem (biodiversity) preservation	Implementation of ecosystem preservation assessment	Conduct ecosystem preservation assessment	Carried out assessment	◆◆◆	Completion of ecosystem preservation assessment

#### Promote Eco-Products

Action goals	Indicators	Fiscal 2014 targets	Fiscal 2014 results	Achievement level	Final fiscal year (2015) targets
Expand Hitachi Eco-Product lineup	Percentage of Hitachi Eco-Product sales	88%	93%	◆◆◆	90%
	Number of models in Eco-Products Select program	220 models	343 models	◆◆◆	340 models
Contribute to the reduction of 100 million tonnes of CO <sub>2</sub> emissions through products and services	Volume of contribution to CO <sub>2</sub> emission reductions through products and services	28 million tonnes	32.19 million tonnes	◆◆◆	35 million tonnes (100 million tonnes by 2025)

#### Build industry's most advanced factories and offices

Action goals	Indicators	Fiscal 2014 targets	Fiscal 2014 results	Achievement level	Final fiscal year (2015) targets
Promote Eco-Factories & Offices Select certification	Eco-Factories & Offices Select certification	Expansion of certification	New certifications: 14 Renewed certifications: 54 Total: 68	◆◆◆	Average of one or more certifications per in-house and Group company

#### Prevent global warming

Action goals	Indicators	Fiscal 2014 targets	Fiscal 2014 results	Achievement level	Final fiscal year (2015) targets
Reduce energy use per unit	Rate of reduction in energy use per unit (base: FY 2005, global)	13%	16%	◆◆◆	15%

#### Use resources efficiently

Action goals	Indicators	Fiscal 2014 targets	Fiscal 2014 results	Achievement level	Final fiscal year (2015) targets
Reduce waste and valuables generation per unit	Rate of reduction in waste and valuables generation per unit (base: FY 2005, global)	21%	25%	◆◆◆	23%
Reduce water use per unit	Rate of reduction in water use per unit (base: FY 2005, outside Japan)	28%	43%	◆◆◆	30%

Environmental Management Strategies and Initiatives

Manage chemical substances

Action goals	Indicators	Fiscal 2014 targets	Fiscal 2014 results	Achievement level	Final fiscal year (2015) targets
Reduce volatile organic compound (VOC) atmospheric emissions per unit	Rate of reduction in VOC atmospheric emissions per unit (base: FY 2006, global)	39%	43%	◆◆◆	40%

Global citizenship program

Action goals	Indicators	Fiscal 2014 targets	Fiscal 2014 results	Achievement level	Final fiscal year (2015) targets
Make social contributions through environmental activities	Promotion of environmental communication as the flagship activity of each in-house and Group company	Expansion of activities	Expanded activities	◆◆◆	Achieve one or more flagship activity per in-house and Group company

◆◆◆: Achieved  
◆◆: Partially achieved

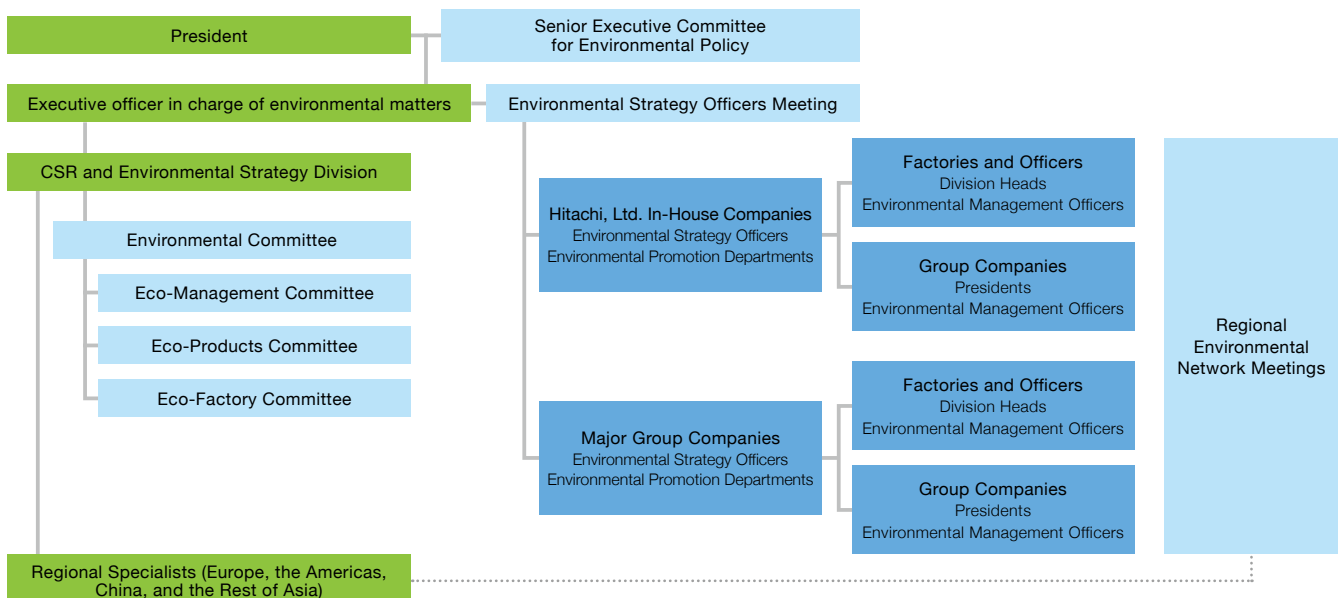
Frameworks >>

Environmental Management Framework

Our global environmental management system supports environmental decision making and implementation at Hitachi, Ltd. and 995 consolidated subsidiaries (a total of 996 companies) and 261 equity-method affiliates.

The CSR and Environmental Strategy Division is responsible for developing Group-wide environmental policies. The Senior Executive Committee, which is chaired by the president of Hitachi, considers important items related to environmental initiatives. The Environmental Strategy Officers Meeting, comprising representatives from in-house companies and major Group companies, ensures that the Hitachi Group Environmental Action Plan approved by the executive officer in charge of environmental concerns is implemented throughout the Group. The Environmental Committee and committees of working-level experts for each policy area develop targets and ways to achieve them, as well as promote 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 within each region.

Hitachi's Environmental Management System (EMS) (as of April 2015)



Hitachi, Ltd. and 995 consolidated subsidiaries (a total of 996 companies) and 261 equity-method affiliates.

### Building Environmental Management Systems

We have established environmental management criteria to ensure efficient management of each business site's environmental load. There are approximately 250 business sites that meet these criteria. The R&D Group, 5 in-house companies, and 11 Group companies together with the CSR and Environmental Strategy 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 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.

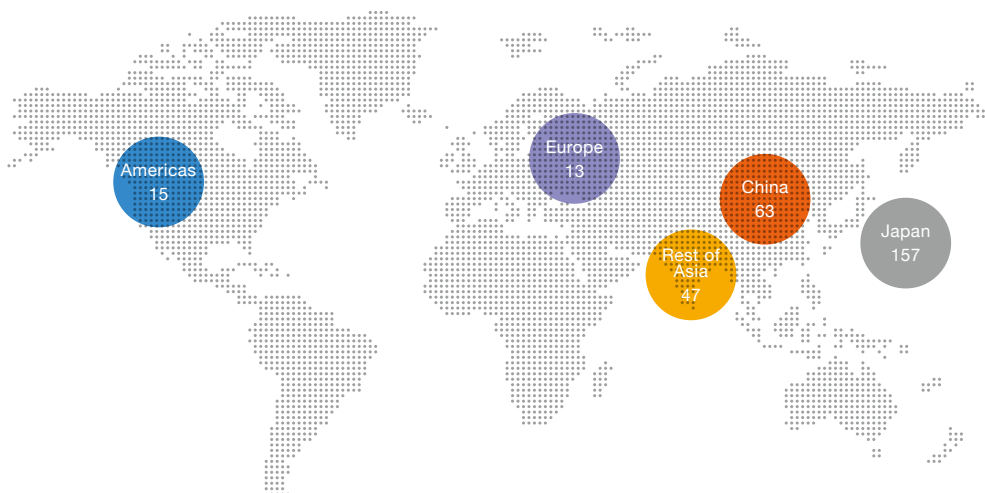
#### Criteria for Environmental Management Level (major items)

Number of employees	≥ 500
Electric power consumption	≥ 6,000 MWh/year
Waste generation	≥ 500 t/year
Water use	≥ 600 m <sup>3</sup> /day
Paper purchase	≥ 50 t/year

#### Status of ISO 14001 Certifications (as of April 2015)

	Japan	Outside Japan	Total
Number of Certified Sites**1	157	138	295

\*\*1 Including companies with more than one certified business site.



### Monitoring Environmental Performance Data

For effective environmental management, we collect data on the environmental performance of business operations using the Environmental Load Evaluation System.

This system collects environmental load data from some 250 Hitachi business sites worldwide on items such as energy use, CO<sub>2</sub> emissions, and waste generation, together with information on awards received and other items. By analyzing this information we identify environmental management issues, share instructive examples within the Group, and improve environmental practices. Specifically, we collect and analyze environmental performance data in the key areas of energy, waste materials, water, and VOCs monthly and quarterly so that performance levels can be further increased.

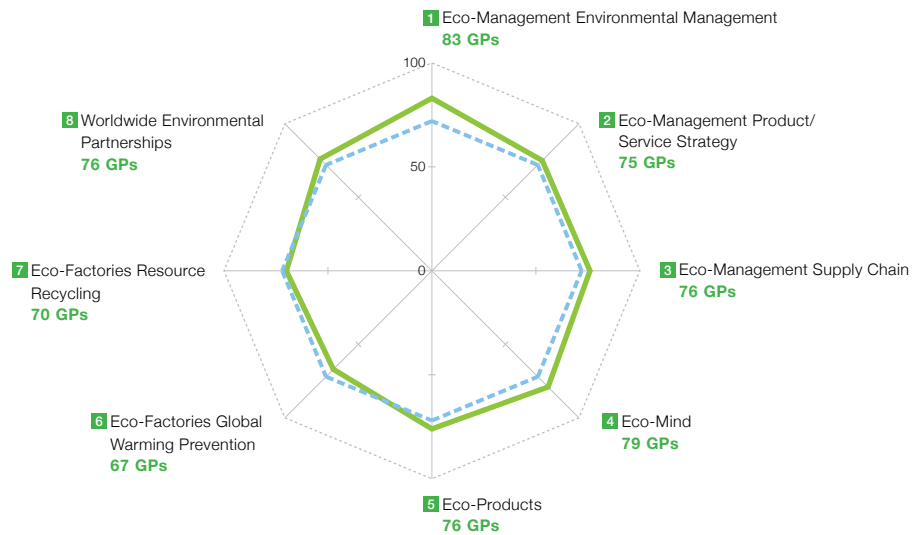
### Environmental Activity Evaluation System

We use our own evaluation system, GREEN 21, to improve the level and quality of our environmental activities. It divides environmental activities into eight categories and evaluates achievements and progress toward Action Plan targets by rating 52 items on a scale from 1 to 5. A perfect score for any category is 100 green points (GPs). We surpassed our fiscal 2014 target of 576 GPs with a score of 602 GPs. As we further raise the level of environmental activities, we are targeting 640 GPs for fiscal 2015.

#### Key Indicators

##### • Green Point (GP) Average: FY 2014 Results and Targets

- FY 2014 result: 602 GP
- - - FY 2014 target: 576 GP



#### Categories and Evaluation Items

- |  |  |
|--|--|
| 1 Environmental management, environmental accounting, and compliance with laws and regulations | 5 Assessment of products and services  |
| 2 Progress toward goal of reducing CO <sub>2</sub> emissions; environment business strategies  | 6 CO <sub>2</sub> emission reductions, energy efficiency improvements, and energy savings in transportation    |
| 3 Gathering and communicating environmental information across the supply chain                | 7 Resource recycling and chemical substances management  |
| 4 Environmental education and training of environmental experts                                | 8 Information disclosure, communication activities, global citizenship activities, and ecosystems preservation |

### Hitachi Group Environmental Award Program

We established the GREEN 21 Award program to encourage environmental activities and disseminate best practices throughout the Group. The awards honor environmentally conscious products and technologies, various environmental initiatives at business sites including advanced energy-saving approaches, and environmental activities that promote communication with society. In fiscal 2014 we presented 14 awards, including those given to Green Curtain Project achievements, which were previously recognized separately.



Environmental Management Strategies and Initiatives

Fiscal 2014 GREEN 21 Awards

Category	Recipient (business site/individual)	Achievement
<b>Environmental Management &amp; Communication</b>		
Grand Prize	Hitachi Elevator (Shanghai) Co., Ltd.	Development of environmental activities that disseminate the corporate philosophy: Implementation of various activities within and outside the company
Excellence Prize	Environmental Policy Center, Human Resources and Administration Department, Group HR Business Partnering Center, Corporate Communications Department, Hitachi (China) Ltd.	Comprehensive activities of eco-mind promotion in China
Honorable Mention	Hitachi Construction Machinery (China) Co., Ltd.	"Hitachi Eco Education classroom program" held on school campuses
	Hitachi Computer Products (America), Inc.	Creation of the Kennedy Elementary School Outdoor Classroom and launch of environmental education activities
<b>Eco-Business and Eco-Products</b>		
Grand Prize	Hitachi Construction Machinery Co., Ltd.	Hybrid Hydraulic Excavator ZH200-5B
Excellence Prize	Hitachi Appliances, Inc.	Room Air Conditioner "Stainless-Clean Shirokuma-kun"
Honorable Mention	Hitachi Chemical Co., Ltd. Nabari Works, Shin-Kobe Electric Machinery Co., Ltd.	LL series stationary valve-regulated lead-acid batteries for power storage
	Mito Works, Urban Planning and Development Systems Company, Hitachi, Ltd. Mito Production Department, Hitachi Building Systems Co., Ltd.	New model Standard Elevator
<b>Eco-Factories and Eco-Offices</b>		
Grand Prize	Hitachi Research Laboratory, Research & Development Group, Hitachi, Ltd.	Energy conservation activities by optimization of research equipment layout and operation and introduction of high-efficiency equipment including LED lights
Excellence Prize	Asahi Headquarters, Hitachi-Omron Terminal Solutions, Corp.	Improvement on the GREEN 21 score and energy use efficiency
Honorable Mention	Hitachi Construction Machinery Tierra Co., Ltd.	Reduction of environmental burden and communication with society through environmental activities
	Ashford Maintenance Depot, Hitachi Rail Europe Ltd.	Energy efficiency improvement
<b>Green Curtains</b>		
Grand Prize	Hitachi Consumer Electronics Co., Ltd. Yokohama Office, IT Platform Division Group, Information & Telecommunication Systems Company, Hitachi, Ltd. Yokohama Research Laboratory, Research & Development Group, Hitachi, Ltd. Yokohama Office, Defense Systems Company, Hitachi, Ltd. Hitachi Advanced Systems Corporation Yokohama Office, Hitachi Industry & Control Solutions, Ltd. Yokohama Office, Nikkyo Create, Ltd. Hitachi ICT Business Services, Ltd. Hitachi Urban Investment, Ltd.	Communication promotion through green curtain creation with local citizens and Hitachi Yokohama group members as "One Hitachi" collaboration activities
Select Excellence Prize	Hitachi Kokusai Electric Inc. and its Group companies in Japan	Group-wide green curtain activities

**Environmental Education Initiatives**

Core Policy >>

**Promoting Environmental Education**

Hitachi Group training is offered to all Group employees with a view to raising awareness and aiding understanding of environmental issues.

Results >>

**Actions and Achievements**

In fiscal 2014 we provided 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. To respond to China's stricter enforcement of environmental laws, in September we held a seminar in Shanghai on environmental regulations and a workshop on environmental risk management for 77 working-level employees at 48 companies. 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 date 142,393 employees worldwide, equaling 97.6% of target employees, 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			Brush-up training for ISO 14001	
			ISO 14001 auditor certification training	ISO 14001 senior auditor certification training

Core Policy >>

### Next Steps

From fiscal 2015, we will continue with environmental education training across all our global operations to enhance the knowledge and skills of staff in charge of factory management. We will also update the content of training programs to reflect fiscal 2015 revisions to the ISO 14001 Environmental Management Systems.

## Climate Change: Risks and Opportunities

Core Policy >>

### Engaging with the Risks and Opportunities of Climate Change

The *Fifth Assessment Report* of the Intergovernmental Panel on Climate Change (IPCC) states that “warming of the climate system is unequivocal,” noting evidence of “warming of the atmosphere and oceans” and “increasing concentrations of greenhouse gases.” Looking ahead, the report warns that our ability to adapt may be hindered and urges major innovations in political, social, economic, and technological systems so that effective adaptation measures can be implemented. Along with mitigation measures, these steps will help us move toward achieving a resilient society and sustainable development.

Hitachi recognizes the risks of climate change as a vital management issue. Seeing opportunities in the mitigation of and adaptation to these risks—the former by reducing greenhouse gases and the latter by changing how society interacts with nature—we are working closely with our customers and partners to promote our Social Innovation Business, which fuses social infrastructure with information technology to tackle the many challenges facing society.

### Regulatory Risks and Opportunities

The environmental regulations and policies of countries and regions around the world include measures that affect business activities at manufacturing sites, such as emissions trading, carbon taxes, and energy efficiency standards, and those that affect product and service conditions, such as energy efficiency standards for products, carbon footprint labeling, and the introduction of a feed-in tariff system for renewable energy. We view these regulations and policies as potential business risks. At the same time, efforts in individual countries and regions to reduce CO<sub>2</sub> emissions are helping to expand our business in the areas of energy-saving equipment and high-efficiency equipment and devices. Energy conservation initiatives are growing to encompass entire cities, as exemplified by smart cities. We will work to further expand our business by providing environmentally conscious solutions suited to the needs of each country or region.

### Risks and Opportunities Presented by Physical Factors

Global warming is leading to extreme weather conditions, such as more powerful typhoons and heavier rainfall, causing natural disasters worldwide. Hitachi has had its share of damage, including flooding of Southeast Asian business sites and submersion of areas surrounding business sites in Japan due to river embankments giving way. In China, we face challenges in the areas of water quality and procurement of the water needed for manufacturing. These issues present risks that could reduce production capacity and raise operational costs, as well as threaten the continuity of our business operations.

Meanwhile, in response to growing worldwide demand for measures against natural disasters, business is expanding for disaster-prevention information systems and other disaster-related products and services. This produces new business opportunities for companies that contribute to the development of a sustainable society that can cope with climate change by using the latest IT to collate and analyze big data. This data includes the information kept on our daily lives, information continually recorded by the social infrastructure systems that support our lives, and information on factors like weather and climate, as well as supplementary data that is updated every day.

### Other Risks and Opportunities

If our initiatives to tackle global warming are insufficient, conceivable risks include a loss of reputation and market rejection of products and services that are not environmentally conscious.

Measures against droughts related to climate change are now an urgent issue, and interest is growing toward Hitachi's water environment solutions business in regions where water shortages are becoming apparent. Water environment solutions are a key part of our Social Innovation Business. We help to preserve and improve the global water environment through such initiatives as seawater desalination, the development of water infrastructure including water treatment systems, and the greening of deserts by constructing pump stations.

## Environmentally Conscious Products and Services

### Hitachi's Approach

**Demand for products and services is increasing against the backdrop of megatrends like population growth and advancing urbanization accompanying economic development. At the same time, global warming, resource depletion, ecosystem destruction, and other environmental problems are worsening.**

**Hitachi believes that reflecting environmental consciousness in its products and services is vital to building a sustainable society. To reduce the environmental burden of products and services throughout their life cycle, therefore, we are developing and expanding the ratio of products called Eco-Products, which meet standards for environmental consciousness, recycling product resources, and managing chemical substances.**

**In particular, we have set three key performance indicators (KPIs) to guide our efforts: Eco-Product sales ratio, number of Eco-Products Select, and contributions of the products to CO<sub>2</sub> emission reductions.**

### Our Actions in Fiscal 2014

During fiscal 2014, we continued our efforts to reduce the environmental burden of products and services throughout their life cycle. Also, in regard to design and development outside Japan, we are moving forward with a planned approach to expanding the lineup of Eco-Products.

- Our Eco-Product sales ratio reached 93%.
- The number of Eco-Products Select models increased by 133 from fiscal 2013, bringing the total to 343 products.
- The annual contribution to CO<sub>2</sub> reduction through products was an estimated 32.19 million tonnes, exceeding the target of 28 million tonnes.
- We collected around 68,000 tonnes of end-of-life home appliances, of which we recycled approximately 60,000 tonnes. We also collected some 13,000 tonnes of end-of-life IT and industrial products, recycling about 12,000 tonnes of this.

### Promoting Eco-Products

#### Increasing the Ratio of Eco-Products

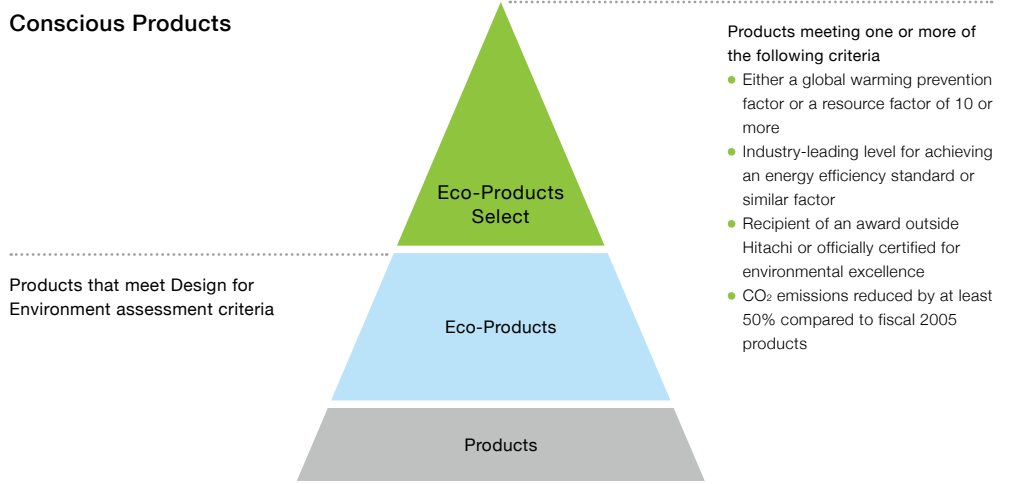
We develop environmentally conscious products called Eco-Products as part of our initiative to reduce the environmental burden of our products and services as much as possible.

Eco-Products must meet criteria used in the design and development stages, when we evaluate the extent to which their environmental burden can be reduced. To promote their development, we have set targets for raising the Eco-Product sales ratio, a figure measuring Eco-Product sales against total product sales.

Eco-Products that meet even more demanding requirements are designated as Eco-Products Select. We are also working to produce more of these products.

Environmentally Conscious Products and Services

Hitachi's Framework for Environmentally Conscious Products



Designation of Eco-Products

Designation of Eco-Products Select

Results >>

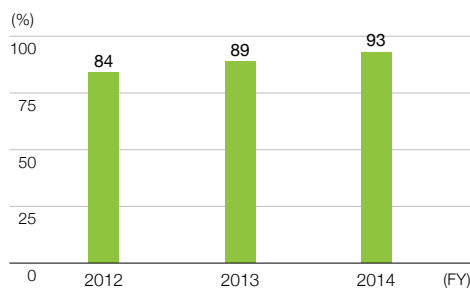
Actions and Achievements

In fiscal 2014, our Eco-Product sales ratio reached 93% and we increased the number of Eco-Products Select models by 133, bringing the total to 343 products.

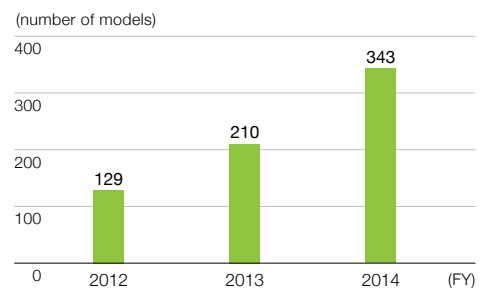
At business sites outside Japan—now with new design and development functions—we went ahead with a planned approach to expanding the lineup of Eco-Products. This included improving the eco-design skills of our designers.

Key Indicators

• Eco-Product Sales Ratio\*1

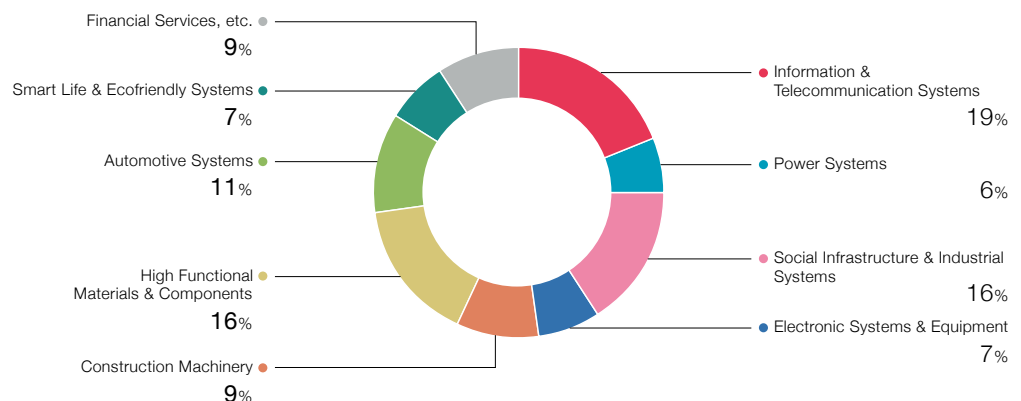


• Eco-Products Select



\*1 The ratio of Eco-Product sales to sales of all products, excluding elements whose environmental impact Hitachi cannot control or influence, such as patent income.

• Eco-Products by Business Segment (Fiscal 2014 Sales Ratio)



Key Approaches >>

Designation of Eco-Products

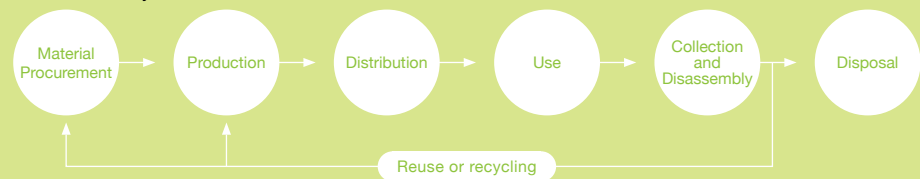
The Hitachi Group evaluates the environmental consciousness of products and services at the design and development stage, using the Assessment for DfE (Design for Environment), and designates ones that meet the criteria as Eco-Products.

In the Assessment for DfE, the environmental load throughout the product life cycle—from material procurement to production, distribution, use, collection and disassembly, and appropriate disposal or recycle—is assessed using eight DfE criteria, including environmental protection measures and energy savings. The results are graded on a scale of 1 to 5. For a product to be designated an Eco-Product, it must score at least level 2, the reference level before the latest major model change, in all eight assessment criteria, and its average over all the criteria must be level 3 or higher.

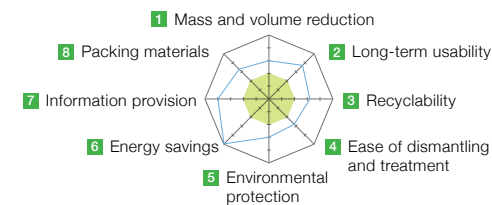
How the Assessment for DfE Is Performed



Product Life Cycle



Eight Assessment Criteria (examples)



Eight Criteria to Quantitatively Assess Environmental Load

DfE assessment criteria (examples)	Life cycle stage (examples)	Assessment (examples)
1 Mass and volume reduction	Material procurement, production	Size and weight reduction, yield of parts and materials, assessment of mass and volume reduction of product
2 Long-term usability	Use	Upgradability, ease of maintenance and repair, durability, reliability
3 Recyclability	Reuse or recycling	Selection of materials and parts that are reusable or recyclable, use of recycled resources, recyclability rate
4 Ease of dismantling and treatment	Production, collection and disassembly	Structure for easy disassembly, ease of separation, reduction of disassembly time, ease of collection and transportation, safety during handling, ease of shredding
5 Environmental protection	Material procurement, production, collection and disassembly, disposal	Environmental protection of parts and units, safety of equipment and materials for maintenance, environmental protection in manufacturing process, environmental protection for facilities
6 Energy savings	Production, use, collection and disassembly, disposal	Energy-saving design of products, energy saving in production process, energy saving in distribution
7 Information provision	Use, collection and disassembly	Information provided to requesting parties, mechanism for providing information
8 Packing materials	Distribution	Reduction in mass and volume of packing materials, recycling of packing materials, ease of collection and transportation of packing materials, ease of disposal of packing materials, environmental protection during treatment, and final disposal of packing materials

Key Approaches >>

### Designation of Eco-Products Select

Eco-Products that meet even more demanding requirements are designated as Eco-Products Select. These must (1) have either a global warming prevention factor or resource factor of 10 or more, (2) be leaders in their industry for their energy efficiency standard achievement rate\*1 or similar factors, (3) have received an award outside the company or official certification for their environmental excellence, or (4) have a CO<sub>2</sub> emission reduction rate at least 50% greater than fiscal 2005 products. "Factor 10 or more" indicates that the product has a global warming prevention efficiency or resource efficiency at least 10 times greater than the reference products that were sold in fiscal 2005, in principle.

\*1 Energy efficiency standard achievement rate: Based on the Energy Conservation Law (Act on the Rational Use of Energy) in Japan, this value indicates the rate of achievement of energy efficiency targets for certain home appliances. The target values are defined using the most energy-efficient products available at the time.

### Global Warming Prevention Factor Calculation

The global warming prevention factor indicates the amount of improvement in efficiency of global warming prevention compared with a reference product. The efficiency of global warming prevention is based on a concept of environmental efficiency balancing the value of products contributing to the quality of life and the reduction of their environmental load. We measure the improvement in quality of life by product function and life span and use the amount of greenhouse gases emitted over the product life cycle to calculate the reduced environmental load.

#### • Definition of Efficiency of Global Warming Prevention

$$\text{Efficiency of global warming prevention} = \frac{\text{Product function} \times \text{Product life span}}{\text{Volume of greenhouse gas emissions throughout the product life cycle}}$$

#### • Definition of Factor of Global Warming Prevention

$$\text{Factor of global warming prevention} = \frac{\text{Efficiency of global warming prevention of evaluated product}}{\text{Efficiency of global warming prevention of reference product}}$$

### Resource Factor Calculation

The resource factor indicates the amount of improvement in resource efficiency compared with a reference product. Drawing on the same concept as global warming prevention efficiency, we measure the improvement in quality of life by product function and life span and use the amount of resources (both new resources and wasted resources) used over the product life cycle to calculate the reduced environmental load.

#### • Definition of Resource Efficiency

$$\text{Resource efficiency} = \frac{\text{Product function} \times \text{Product life span}}{\Sigma (\text{Life cycle resource use} \times \text{Value coefficient of each resource})}$$

#### • Definition of Resource Factor

$$\text{Resource factor} = \frac{\text{Resource efficiency of evaluated product}}{\text{Resource efficiency of reference product}}$$

Key Approaches >>



Blade Server "Hitachi Compute Blade 2500."



Package Oil-Free BEBICON NEXTseries.



Digital mobile X-ray system Sirius Starmobile tiara.



Stationary valve-regulated lead-acid battery for power storage LL1500-W.

Examples of Eco-Products Select

Information & Telecommunication Systems

**Product: Blade Server "Hitachi Compute Blade 2500" (Hitachi Data Systems Corporation, Information & Telecommunication Systems Company, Hitachi, Ltd.)**

• Environmentally Conscious Features and Characteristics

Achieves lower power consumption with various energy-saving technologies, including high-efficiency power supply modules, power capping, and power efficiency optimization. Can also display the power consumption history of servers for the previous 24 hours; the data can help enhance energy-saving effects through use in devising energy-saving plans or in checking the efficacy of implemented energy-saving measures.

Social Infrastructure & Industrial Systems

**Product: Package Oil-Free BEBICON NEXTseries (Hitachi Industrial Equipment Systems Co., Ltd.)**

• Environmentally Conscious Features and Characteristics

Features ECOMODE, a new control system that automatically adjusts the compressor's operating pressure by continuously monitoring the load ratio and computing the optimum pressure, preventing operation under excessive pressure. Consumes approximately 16% less energy than its predecessor.\*1

\*1 Based on a comparison between the old model POD-7.5MB and new model POD-7.5MN at an air capacity ratio of 50%, when connected to a 230-liter air receiver.

Electronic Systems & Equipment

**Product: Digital mobile X-ray system Sirius Starmobile tiara (Hitachi Medical Corporation)**

• Environmentally Conscious Features and Characteristics

By employing a DR\*1 system equipped with a wireless flat panel detector, enables additional and multiple images to be taken without the need to replace cartridges. Hitachi's original mono-tank X-ray generator makes for a more compact body with approximately 20% less weight compared to its predecessor (released in fiscal 2010), thereby conserving resources.

\*1 Digital radiography: A method in which X-ray beams passing through a subject are converted to electric signals and reconstructed as an X-ray image.

High Functional Materials & Components

**Product: LL series stationary valve-regulated lead-acid batteries for power storage (Hitachi Chemical Co., Ltd., Shin-Kobe Electric Machinery Co., Ltd.)**

• Environmentally Conscious Features and Characteristics

By using technologies like enhanced corrosion resistance, we have extended the life of power storage batteries for systems that absorb output fluctuations in renewable energy (such as wind and solar) by approximately 100 times in terms of the number of charge-discharge cycles.\*1 This eliminates the need to replace lead-acid storage batteries,\*2 allowing conservation of resources and reduced running cost for wind power generation systems with storage batteries.

\*1 Compared to conventional products (2005 models).

\*2 Based on expected lifetime under recommended conditions of use.





Room Air Conditioner "Stainless-Clean Shirokuma-kun."

Key Approaches >>



The Gambrell Mill Trail footpath at the Monocacy National Battlefield.

### Smart Life & Ecofriendly Systems

#### Product: Room Air Conditioner "Stainless-Clean Shirokuma-kun" (Hitachi Appliances, Inc.)

##### ● Environmentally Conscious Features and Characteristics

Features original energy-saving technologies, including a large-diameter cross-flow fan with undulating blades to reduce fan input power and enhance air flow stability, as well as improvements in the shape of the propeller fans in the outdoor unit. The 4.0 kW cooling capacity model achieves an industry-leading\*1 annual performance factor of 7.3.\*2

\*1 As of January 19, 2015.

\*2 Annual performance factor: Annual energy efficiency as specified in JIS C 9612:2013.

##### ● Third-Party Awards

Minister's Prize, The Ministry of Economy, Trade, and Industry for Product Category & Business Model Category, Grand Prize for Excellence in Energy Efficiency and Conservation 2014 (for 15 models including RAS-X40E2)

### Eco-Products Under Hitachi's Sustainability Practice Scheme

In cooperation with the National Capital Region Office of the National Park Service, Hitachi Consulting Corporation in the United States has been helping national parks in the National Capital Region obtain Climate Friendly Park\*1 certification by reducing greenhouse gas (GHG) emissions. This project is classified as one of Hitachi Consulting's Eco-Products under the Sustainability Practice scheme. The company has been creating GHG inventories for each park by collecting data from parks and visitors, planning and facilitating educational workshops for park staff and partners, and producing educational materials. As a result, all 13 national parks in the National Capital Region have achieved Climate Friendly Parks status as of fiscal 2014. All parks have adopted climate action plans including GHG reduction goals for transportation, energy, and waste emissions. Through these efforts, the National Capital Region Office forecasts that direct emissions such as those from fossil fuels will be reduced by 12%, energy-related indirect emissions from electricity usage by 7%, and other indirect emissions from waste and other sources in the value chain by 15%.

\*1 Climate Friendly Park certification is part of the Climate Friendly Parks program, originally developed in 2002 by the US Environmental Protection Agency and the National Park Service.

Key Approaches >>



Hitachi's environmental mark.

Lists and datasheets of  
Eco-Products

Environmental Efficiency of Hitachi  
Products Based on Factor X (PDF)

Key Approaches >>

Contribution of Hitachi products  
and services to the reduction  
CO<sub>2</sub> emissions

Key Approaches >>

## Disclosure of Environmental Information

To display a product's environmental consciousness with stakeholders, Hitachi's environmental mark indicates that the Assessment for DfE has shown the product to be an Eco-Product or an Eco-Product Select. Our website also discloses environmental information, introducing case studies on environmentally conscious products and services as well as datasheets that include the power consumption of each product.

## Hitachi Products Helping to Reduce CO<sub>2</sub> Emissions

In fiscal 2014, we expect to achieve a reduction in CO<sub>2</sub> emissions through products of 32.19 million tonnes, better than the target of 28 million tonnes. Major contributions to this achievement came from the products and services of our Power Systems Company, Infrastructure Systems Company, Information & Telecommunication Systems Company, Hitachi Appliances, and Hitachi Construction Machinery. We plan to work even harder to develop and popularize other products that contribute to CO<sub>2</sub> emission reductions.

## Addressing Our Carbon Footprint





The carbon footprint of products (CFP) is the CO<sub>2</sub> 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 boosts consumer interest in buying products with low carbon emissions and encourages businesses to reduce the amount of carbon emitted by their products over the whole life cycle. A number of countries around the world use the CFP approach.

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.\*<sup>1</sup> In fiscal 2014, our enterprise storage systems, PC servers, IP-PBX communication systems, and Wi-Fi relay equipment were verified and approved by the JEMAI CFP Program. In addition to visualizing CO<sub>2</sub> emission amounts, we quantified the rate of CO<sub>2</sub> emission reductions per function\*<sup>2</sup> from previous models, obtaining data on the quantitative effect of their energy efficiency that we put to use in explanations on our website and at product shows.

\*<sup>1</sup> Approved CFP Product: A product subjected to testing according to the CFP quantification rules of the Carbon Footprint Communication Program, which also passes the CFP quantification verification and undergoes the application process for registration and public announcement.

\*<sup>2</sup> Specifically, the "life cycle GHG emissions per unit function amount," calculated by dividing "life cycle GHG emissions per sales unit" by "function amount of applicable product" as specified by performance (or performance characteristic) and/or use period.

Products authorized to display the CFP label in fiscal 2014

Products	Enterprise storage	PC servers	IP-PBX communication systems	Wi-Fi relay equipment
(New model)	Hitachi Virtual Storage Platform G1000	HA8000/RS110 (M1)	CX-01 type	WA-101J
Product appearance				
(Previous model)	Hitachi Virtual Storage Platform	HA8000/RS110 (M)	CX9000IP type S	WIFI-AP-A
Rate of reduction in CO <sub>2</sub> emissions	-37%	-11%	-19%	-57%

Key Approaches >>

Working with European Environmental Footprint Initiatives

The Product Environmental Footprint (PEF) and Organisation Environmental Footprint (OEF) initiatives were launched by the Environment Directorate-General of the European Commission to develop methodologies for measuring the life cycle environmental impact of products and organizations in up to 15 areas. Three-year pilot studies were started in November 2013 to establish assessment methods in multiple product and organization fields.

Hitachi, drawing on experience with Japan's carbon footprint program and the knowledge gained from calculating and visualizing CO<sub>2</sub> 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.

Core Policy >>

Next Steps

We have set the targets for raising the Eco-Product sales ratio to 90% and the number of Eco-Products Select models to 340 by fiscal 2015. To meet these goals, we are working on product and service development plans aimed at expanding the number of Eco-Products, as well as working on creating additional value for the products and services by lowering their environmental burden in ways that will help our business to grow.

Resource Recycling Initiatives

Core Policy >>

Recycling Product Resources

Hitachi is reducing the environmental burden of products at the disposal stage through efforts that include collecting end-of-life products for use as resources, such as by recycling and refurbishing parts for reuse. By effectively utilizing these products, we play a role in addressing global environmental issues, including limiting the additional raw resources that must be extracted from nature, reducing the use of energy and water resources at extraction sites, and averting the air, water, and soil pollution that accompanies landfilling, incinerating, and other waste-disposal methods in areas where end-of-life products are generated.

Key Approaches >>

Product Collection and Recycling

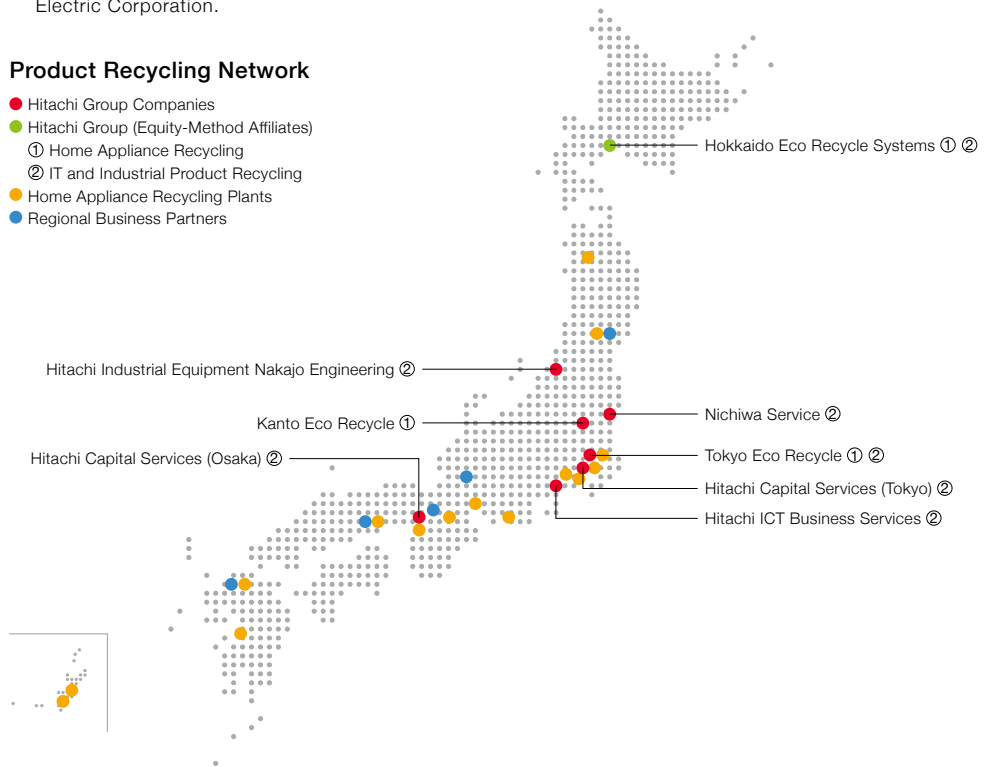
In order to comply with the 2001 Home Appliance Recycling Law, Hitachi has taken part in cooperative efforts by five companies\*1 in the same industry while recycling air conditioners, televisions, refrigerators, and washing machines at 18 recycling plants nationwide. In fiscal 2014, we reused and recycled around 60,000 tonnes of the roughly 68,000 tonnes of end-of-life products we collected.

Today we are building on our know-how in recycling home appliances by creating a recycling network and expanding collection and recycling programs to include IT products like personal computers, servers, and communication equipment; industrial equipment including pumps, motors, distribution boards, transformers, refrigeration equipment, and machine tools; and industrial air conditioners and medical equipment. In fiscal 2014, we reused and recycled around 12,000 tonnes of the roughly 13,000 tonnes of the end-of-life IT products, industrial equipment, and other items we collected.

\*1 Hitachi Appliances, Inc., Sharp Corporation, Sony Corporation, Fujitsu General Limited, and Mitsubishi Electric Corporation.

Product Recycling Network

- Hitachi Group Companies
- Hitachi Group (Equity-Method Affiliates)
  - ① Home Appliance Recycling
  - ② IT and Industrial Product Recycling
- Home Appliance Recycling Plants
- Regional Business Partners



Key Approaches >>

Medical Equipment Recycling



Hitachi Medical's end-of-life medical equipment recycling initiative.

- Management of containers and packaging
- Number and rate of recycled consumer electronics products (Japanese)
- Number of PCs taken back and the resource recycling rate (Japanese)

Hitachi Medical Corporation pursues the effective reuse of metal, plastic, and other resources by collecting and recycling end-of-life medical equipment, which may also contain rare metals and other scarce and exhaustible resources. As a manufacturer, collecting equipment for recycling allows the company to control the need for additional natural resources to be extracted and to reduce waste.

## Management of Chemical Substances

Core Policy >>

### Managing Chemical Substances in Our Products

In fiscal 2005 Hitachi formulated the Regulations for Environmental CSR-Compliant Monozukuri to manage the chemical substances contained in its products.

We continue to revise the list of applicable substances to ensure compliance with European REACH\*1 and other regulations. In April 2013, we modified the list of Voluntarily Controlled Chemical (VCC) Substances, so that now 17 prohibited substances (Level 1) and 20 controlled substances (Level 2) are listed.

\*1 REACH regulation: The European Union regulation on Registration, Evaluation, Authorization, and Restriction of Chemicals.

### The Hitachi Group's VCC Substances

Classification	Application	Substance (Group) Names
Level 1: Prohibited Substances	Chemical substances that the Hitachi Group prohibits from being included in procured products (substances banned or restricted by domestic or foreign regulations for use in products, including packing materials, that may be used in products procured for the Hitachi Group)	Cadmium and its compounds, hexavalent chromium compounds, lead and its compounds, mercury and its compounds, polybrominated biphenyls (PBBs), polybrominated diphenyl ethers (PBDEs), tri-substituted organostannic compounds, polychlorinated biphenyls (PCBs), polychlorinated terphenyls (PCTs), polychlorinated naphthalenes (with 3 or more chlorines), short-chain chlorinated paraffins (C10-C13), asbestos, ozone layer depleting substances (Class I), perfluorooctanesulfonic acid and its analogous compounds, 2-(2H-1,2,3-benzotriazole-2-yl)-4,6-di-tert-butylphenol, hexachlorobenzene, dimethylfumarate (DMF)
Level 2: Controlled Substances	Substances for which monitoring and control are required by domestic or foreign regulations, or for which special consideration for recycling or appropriate disposal is required, including substance groups whose use in supplied products may be restricted for certain uses	Antimony and its compounds, arsenic and its compounds, beryllium and its compounds, nickel and its compounds, selenium and its compounds, unspecific brominated flame retardants, polyvinyl chloride (PVC) and its mixture and its copolymer, phthalate esters, ozone layer depleting substances (Class II: HCFC), radioactive substances, di-substituted organostannic compounds, cobalt and its compounds, azodyes and azocolourants which form specified amines, formaldehyde, benzene, fluorine-based greenhouse gases, REACH restriction substances, REACH authorization substances, REACH SVHC, JAMP declarable substances

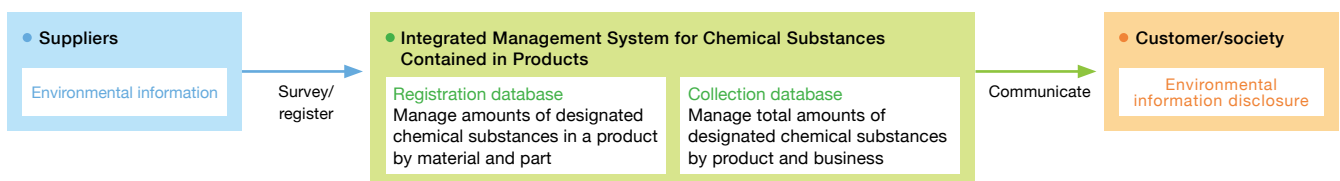
### Compliance with REACH Regulation

REACH notifications on particular substances in articles were completed by the previous June and December 2014 deadlines. Hitachi continues its investigations and preparations in the lead-up to the next round of notifications.

### 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, 2015, chemical substance information for more than 1.21 million parts and products was registered under this integrated management system.

## Integrated Management System for Chemical Substances Contained in Products



## Environmentally Conscious Production

### Hitachi's Approach

**As the economies of emerging countries continue to rapidly develop, concern is rising over the growing environmental burden due to such factors as increases in energy consumption, waste production, and chemical substance emissions. To reduce the environmental burden of our business activities, factories and offices that show a high level of environmental consciousness and outstanding results in these areas receive Eco-Factory & Office Select certification. These actors promote environmentally conscious production as suppliers of energy-efficient products and services. Hitachi pays particular attention to energy usage, CO<sub>2</sub> emissions, waste volume, water usage, and volatile organic compound (VOC) atmospheric emissions, and has created key performance indicators (KPIs) for these areas.**

### Our Actions in Fiscal 2014

In fiscal 2014 we continued to ensure environmentally conscious production through proactive efforts to use energy efficiently, reduce GHG (greenhouse gas) emissions throughout the value chain, and decrease waste production, water usage, and VOC atmospheric emissions.

- Certified 14 new Eco-Factories & Offices Select sites and renewed 54 certifications.
- Achieved energy consumption (crude oil equivalent) of 1.68 million kL in fiscal 2014 and a 16% reduction of energy use per unit from the base year of fiscal 2005.
- Achieved 810 kt-CO<sub>2</sub>e of SCOPE 1 (direct) emissions and 3,000 kt-CO<sub>2</sub>e of SCOPE 2 (energy-related indirect) emissions.
- Achieved waste and valuables generation of 692 kt and a 25% reduction of waste and valuables generation per unit from the base year of fiscal 2005.

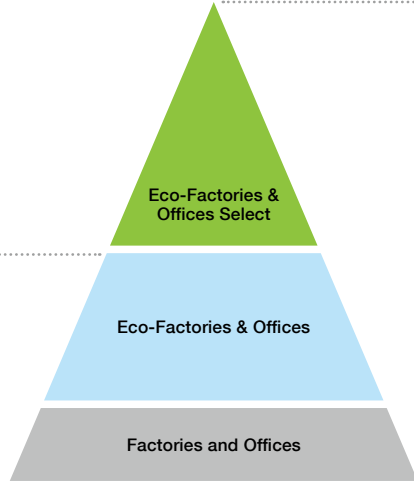
### Eco-Factories & Offices Select

### Creating Eco-Factories & Offices Select

Since fiscal 2011, we have implemented an Eco-Factories & Offices Select certification program for locations that show a high level of environmental consciousness. Certification criteria were developed for our manufacturing (factory) and nonmanufacturing (office) divisions globally. To maintain and raise the level of environmental awareness through Eco-Factories & Offices Select, certified factories and offices will be re-evaluated every fiscal year to confirm that their performance continues to meet requirements. In fiscal 2014, 14 facilities obtained new certifications and 54 facilities had their certifications renewed.

**Eco-Factories & Offices Select Certification Criteria**

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



An office or factory 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
- VOC emission reduction

**Eco-Office Select**

- High-efficiency lighting
- Renewable energy use
- Energy savings
- Improved office building environmental performance

Key Approaches >>



Tokyo Works, Hitachi Kokusai Electric Inc.

**Tokyo Works, Hitachi Kokusai Electric Inc.**

The Tokyo Works of Hitachi Kokusai Electric Inc. in Kodaira, Tokyo, engages in the development, design, and manufacture of communication and information, broadcasting, and video system products. The factory introduced electronic manifests to clarify the flow of its waste treatment and achieved a 100% registration rate in fiscal 2013. The Tokyo Works promotes the reduction and recycling of the waste it produces and has achieved zero emissions\*1 since fiscal 2008. The new production building, constructed in fiscal 2013, is an environmentally conscious Eco-Factory that uses high-efficiency LEDs for all lighting. A 100 kW photovoltaic power system is installed on the roof; its real-time operation status is displayed on large monitors set up in three locations. Allowing visiting customers and employees to see the solar system's status at all times raises environmental awareness.

\*1 Zero emissions: Defined as a final disposal rate (landfill disposal/waste and valuables) of less than 0.5% in any given year.

Key Approaches >>



Clarion Hungary Electronics Kft.

**Clarion Hungary Electronics Kft.**

Clarion Hungary Electronics Kft. is a manufacturer of car audio systems and navigation systems for the European market and is the Clarion Group's only manufacturing base in Europe. This factory was certified as an Eco-Factory in 2013 for switching all lighting in the automatic machine area to high-efficiency lighting, saving approximately 450 MWh of electricity per year. In addition to its energy-saving efforts, the factory works to ensure effective use of resources. It installed a manual separator of the dross that results from the soldering process and reduced soldering material usage by approximately 60%, leading to energy and cost reductions. In 2014, a wastewater-recycling device was introduced to the cleaning process. This device separates water and sludge from wastewater and recycles the water, while the sludge is incinerated as waste. A green curtain was also created outside the office building windows as a part of environmental activities.

Core Policy >>

### Next Steps

The Eco-Factories & Offices Select program is being expanded through development of more efficient energy use, waste recycling, and other measures in Group factories and offices, reducing the environmental burden of our business activities.

Our goal is for every in-house and Group company to have at least one factory or office certified by fiscal 2015.

## Global Warming Countermeasures

Core Policy >>

### Promoting Global Warming Countermeasures

We are promoting ways to use energy more efficiently and reduce GHG emissions during production and transportation, in both manufacturing and nonmanufacturing divisions, to help prevent global warming.

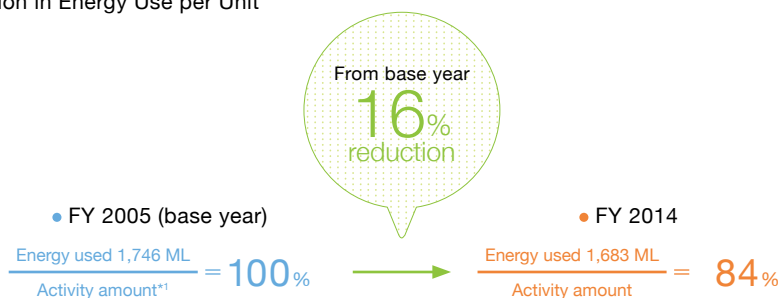
Results >>

### Actions and Achievements

We are working to reduce the energy use per unit as one way to use energy more efficiently. In fiscal 2014, we achieved a reduction of 16% (from fiscal 2005, the base year), surpassing the target of 13%. To achieve further reductions, we are systematically installing high-efficiency equipment and devices, from LED lighting to inverter air conditioners, and increasing the efficiency of our energy usage by improving manufacturing processes. We are also visually displaying energy use data at in-house and Group companies as an incentive to make further improvements.

#### Key Indicators

- Reduction in Energy Use per Unit

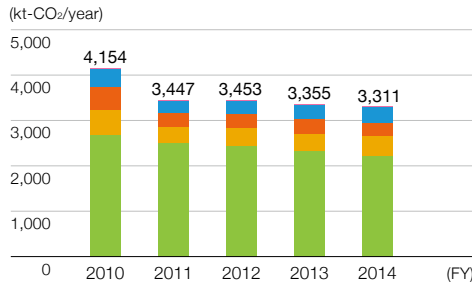


\*1 A value closely related to the emission factor numerators (environmental burden) of energy use from business activities (for example, production quantity, output, building floor space, and number of employees).



Environmentally Conscious Production

CO<sub>2</sub> Emissions



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

\* Emissions are calculated based on the 2005 CO<sub>2</sub> emission coefficients for electric power by country published by the International Energy Agency in *CO<sub>2</sub> Emissions from Fuel Combustion* (2010 edition).

Breakdown by Region (kt-CO<sub>2</sub>/year)

	2010	2011	2012	2013	2014
Europe	8	7	4	4	8
Americas	421	295	316	321	358
China	502	287	315	332	305
Rest of Asia	543	357	381	375	423
Japan	2,680	2,501	2,437	2,323	2,217
Total	4,154	3,447	3,453	3,355	3,311

Key Approaches >>

Saving Energy Through M2M Data Collection Solutions

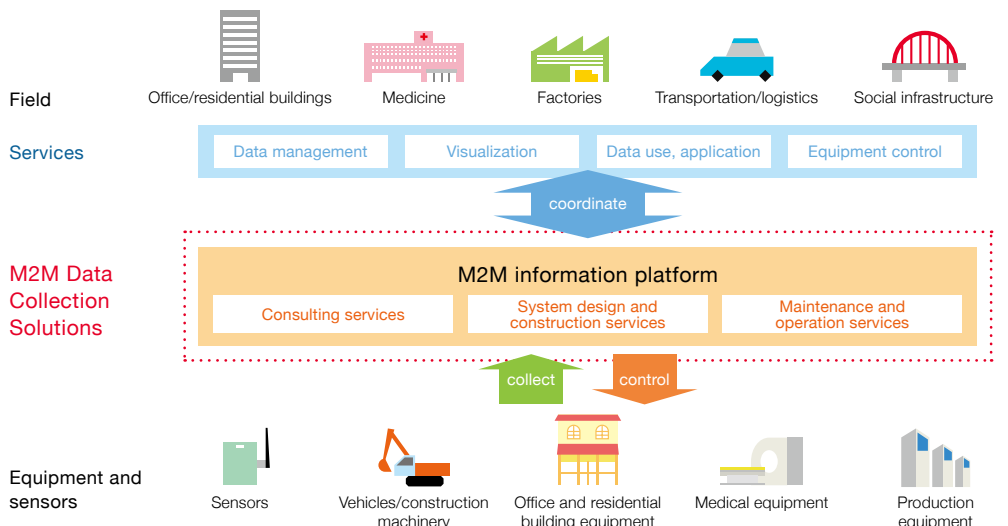
We make use of M2M\*1 data collection solutions provided by Hitachi Information & Telecommunication Engineering Ltd. to increase energy efficiency at our Information & Telecommunication Systems Company offices. The IEEE 1888 is an international communication standard developed through an open process for controlling building energy management systems. Applying this standard lets us seamlessly connect existing machines and sensors with various services, such as for data usage and visualization, and apply them to energy conservation measures throughout entire buildings.

Numerous air-conditioning units are in operation at the Hitachi Omori 2nd Building. The introduction of M2M data collection solutions through installation of environmental sensors made it possible to visualize power consumption and environmental impact without replacing the units. This allowed for integrated management of multiple units at low cost and with minimal installation time. Furthermore, effective use of the central air-conditioning system and standalone units maintained comfortable room environments while achieving energy savings of up to 14%.

Hitachi plans to expand monitoring by machines and equipment beyond its application in office building energy conservation, extending it to a range of uses in factories, transportation, and logistics.

\*1 Machine to machine: systems providing services based on information exchange between devices.

Saving Energy Through M2M Data Collection Solutions



Key Approaches >>



Green Power logo for Green Power Certification.

Key Approaches >>



Efficient loading of products into containers.

Core Policy >>

Core Policy >>

### Introducing Renewable Energy

We are promoting the use of solar, wind power, and other forms of renewable energy. In fiscal 2014, Hitachi produced 3,440 MWh of renewable energy. Hitachi Car Engineering Co., Ltd., which changed its name to Hitachi Automotive Systems Engineering, Ltd., on April 1, 2015, uses electricity from its own small wind turbine to power electric installations to entertain and communicate with area residents and employees. Hitachi Computer Products (America), Inc., proactively uses renewable energy, purchasing 3.992 million kWh (equivalent to 2,567 t-CO<sub>2</sub>) of wind power annually.

We also contracted for Green Power Certifications for 1,000 MWh/year through Japan Natural Energy Company Limited, using these to cover power generated for showrooms and at exhibitions.

### Reducing Transportation Energy Consumption

Reductions in transportation energy consumption per unit are reflected in the individual targets of each in-house and Group company. This allows additional actions to be taken to further reduce energy consumption. 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. CO<sub>2</sub> emissions from transportation inside Japan for the Hitachi Group in fiscal 2014 were 115 kt-CO<sub>2</sub>.

Hitachi Koki Co., Ltd., is taking a range of measures to cut transportation energy usage. These include reducing transportation journeys through shipping and delivery management, implementation of a modal shift in transportation methods, and loading into containers at plants to reduce the number of transport vehicles. In fiscal 2014, CO<sub>2</sub> emissions per unit were reduced by 15.7% compared with fiscal 2006.

### Next Steps

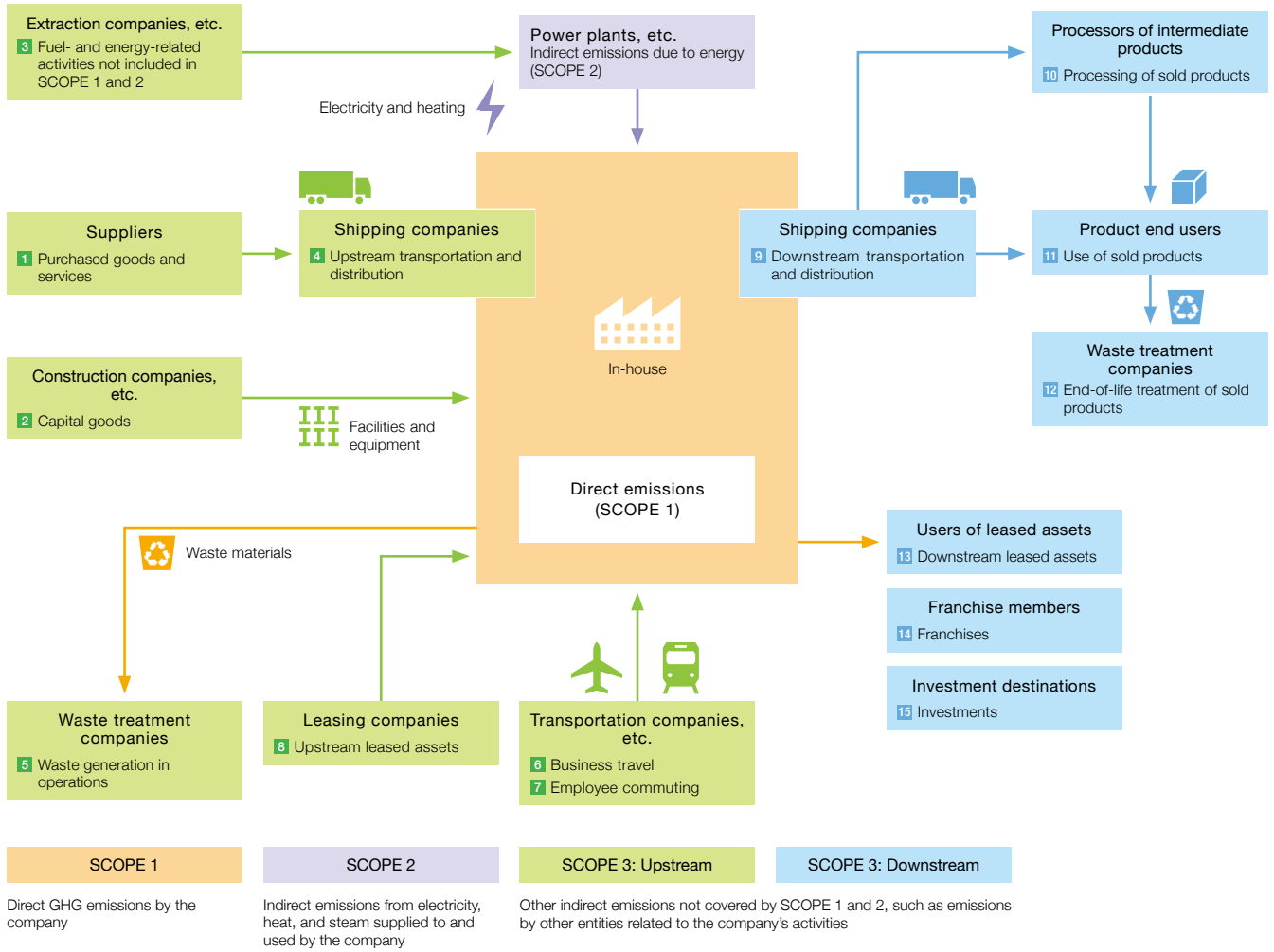
As suppliers of products and services, Hitachi business sites are contributing to the reduction of energy-related emissions of CO<sub>2</sub> and other GHGs by promoting efficient energy usage and consistently maintaining a high level of improvement activities. In pursuit of these targets, Hitachi continually implements a PDCA (plan, do, check, act) cycle and works to reduce GHG emissions.

## Value Chain Initiatives

### Calculation of GHG Emissions Throughout the Value Chain

We calculate greenhouse gas (GHG) emissions throughout the entire value chain to more effectively reduce these emissions. As over 90% of emissions come from use of the products we have sold, we are working to reduce emissions by developing Eco-Products that meet environmentally conscious criteria throughout their life cycle.

Categories of GHG Emissions in the Value Chain



**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

Category	Description	Calculation Results (kt-CO <sub>2</sub> e)
<b>SCOPE 1*1</b>		
Direct emissions	Direct emissions from in-house fuel use and industrial processes	810 (0.3%)
<b>SCOPE 2*2</b>		
Energy-related indirect emissions	Indirect emissions from production of electricity and heat purchased by the company	3,000 (1.1%)
<b>SCOPE 3: Upstream (other indirect emissions)</b>		
<b>1</b> Purchased goods and services	Emissions from the resource extraction stage to the manufacturing stage, including raw materials, parts, supplied products, and sales	9,120 (3.4%)
<b>2</b> 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	1,310 (0.5%)
<b>3</b> 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	220 (0.1%)
<b>4</b> 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	140 (0.1%)
<b>5</b> Waste generated in operations	Emissions from transportation, disposal, and treatment of waste generated in the company's operations	100 (0.0%)
<b>6</b> Business travel	Emissions generated from fuel and electric power used by employees for business travel	80 (0.0%)
<b>7</b> Employee commuting	Emissions generated from fuel and electric power used in employee commuting	80 (0.0%)
<b>8</b> 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
<b>SCOPE 3: Downstream (other indirect emissions)</b>		
<b>9</b> Downstream transportation and distribution	Emissions from transportation, storage, loading and unloading, and retail sales of products	10 (0.0%)
<b>10</b> Processing of sold products	Emissions by downstream companies during processing of intermediate products	N/A*3
<b>11</b> Use of sold products	Emissions from use of products by end users, such as consumers and businesses	251,650 (94.4%)
<b>12</b> End-of-life treatment of sold products	Emissions from transportation, waste disposal, and treatment of products by end users, such as consumers and businesses	160 (0.1%)
<b>13</b> Downstream leased assets	Emissions from operating assets owned by the reporting company as lessor and leased to other entities	30 (0.0%)
<b>14</b> Franchises	Emissions by franchises under SCOPE 1 and 2	N/A
<b>15</b> Investments	Emissions related to management of investments	100 (0.0%)
Total		266,810 (100%)

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

\*1 Includes SF<sub>6</sub>, PFC, HFC, N<sub>2</sub>O, NF<sub>3</sub>, and CH<sub>4</sub>.

\*2 The CO<sub>2</sub> electrical power conversion factor used to calculate emissions uses the 2005 emission coefficients for individual countries published by the International Energy Agency (IEA) in the 2010 edition of *CO<sub>2</sub> Emissions from Fuel Combustion*.

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

## Waste Reduction Initiatives

### Reducing Waste

Waste management includes such issues as landfilling, incineration, transportation of waste material across borders, and handling of hazardous materials. Environmental risks posed to air, water, and soil, as well as to the health of people near disposal and treatment sites, require control measures carried out with a global perspective. Waste reduction is an important part of addressing these issues; Hitachi has set targets for waste and valuables generation in factories and offices around the world.

Results >>

Zero Emission Sites

Actions and Achievements

For fiscal 2014, we set a target of a 21% reduction (from the fiscal 2005 base year) for waste and valuables generated per unit, bettering this by achieving a 25% reduction. Every factory and office is reducing waste through onsite recycling of byproducts and scrap from the production process and efforts to curb use of raw materials related to transport. Under the Zero Emission initiative, which seeks to minimize landfill disposal, 123 facilities achieved their zero emission goal\*1 as of fiscal 2014.

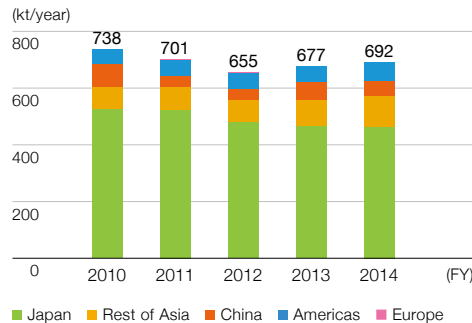
\*1 Defined as a final disposal rate (landfill disposal/waste and valuables) of less than 0.5% in any given year.

Key Indicators

Reduction in Waste and Valuables Generated per Unit



Waste and Valuables Generated



Breakdown by Region (kt/year)

	2010	2011	2012	2013	(FY) 2014
Europe	1	3	1	1	2
Americas	54	55	58	56	67
China	80	40	38	62	54
Rest of Asia	78	80	80	93	106
Japan	525	523	478	465	463
Total	738	701	655	677	692

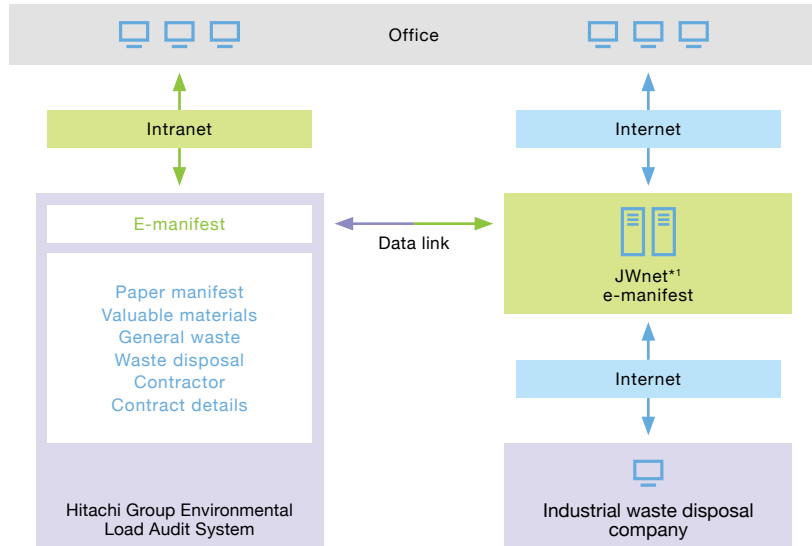
Key Approaches >>

Using IT for Managing Waste

Hitachi has developed a waste management system aimed at more efficient processes and reduced compliance risk. This system enables better waste management through visualization of waste produced at locations from small offices with lower waste volumes to larger business sites and contract operations. It is also being used as a tool for keeping track of waste volume and to share methods for more effective use of resources. From fiscal 2014, it has also been used at business sites outside of Japan to closely manage waste. In Japan, we aim to boost the Hitachi Group e-manifest\*1 registration ratio to at least 90% by fiscal 2015. As of fiscal 2014, 154 sites had introduced e-manifest systems, raising the registration rate to 89%.

\*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.

Key Approaches >>



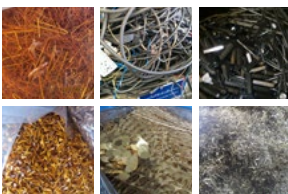
Heat-resistant cast-iron and steel engine components.

Key Approaches >>



The exterior of the Osaka Production Center.

Key Approaches >>



Sorted waste materials from production, ready for reuse.

### Recycling Dust to Reduce Waste

Hitachi Metals, Ltd., manufactures heat-resistant cast-iron and steel automobile engine components. The company discovered at its Kyushu factory that dust collected during the casting process contained 25%–55% active clay material. After considering ways to effectively utilize the dust without affecting product quality, the company was able to reduce around 140 tonnes of waste annually by reusing it in casting sand.

### Reduced Waste Through Production Enhancements

Hitachi Construction Machinery Tierra Co., Ltd., produces the main parts of the Hitachi mini excavator. When the company relocated its Osaka Production Center, it improved the machining and painting processes as well as other production aspects, increasing part quality and reducing scrap. Through these and other measures the company reduced waste by approximately 70% and achieved a zero emission rate of 0.1%, as well as attaining a 100% e-manifest registration rate.

### Boosting Resource Circulation with Better Sorting Practices

Hitachi Automotive Systems Chonburi Ltd. is a Group company in Thailand that manufactures and sells automotive parts. The company promotes circulative use of resources by thoroughly sorting and reusing waste materials from production. The company also recycles coolant for machinery, filtering out water that gets mixed in during production. Thanks to these efforts, the company in fiscal 2014 increased circulative use of waste materials from 38% to 69%.

Key Approaches >>



Used packing materials are separated and compacted.

Key Approaches >>



An onsite inspection at a waste treatment company.

Core Policy >>

### Improving Recycling Rates by Collecting and Sorting Packing Materials

Hitachi Transport System, Ltd., is globally expanding its key business concept of “Smart Logistics” by collecting used packing materials from offices and distribution centers and boosting recycling. The company collects cardboard, plastic stretch film, and other packing materials, separating and compressing these into bundles to be put back into use as paper and plastic resources. In fiscal 2014, Hitachi Transport System recycled around 31,000 tonnes of packing material across the entire Group, achieving a recycling rate of 99%.

### Confirming Proper Waste Disposal Practices in Thailand

Hitachi Chemical Asia (Thailand) Co., Ltd., carries out onsite inspections at subcontracted waste treatment facilities to ensure that waste materials are being disposed or recycled appropriately. In Japan, routine inspections are provided for under the law. As no similar regulations exist in Thailand, however, regular visits are made to contractors to verify proper processing of materials.

### Next Steps

In Japan, Hitachi has significantly reduced waste sent to landfills by reducing the volume of waste generated, in some cases eliminating it entirely, and by promoting recycling.

Worldwide economic and population growth are expected to sharply increase the amount of waste materials produced and intensify the depletion of natural resources. Taking a global perspective, we are committed to reducing waste and finding solutions to issues including landfilling, incineration, transporting waste materials across borders, and handling hazardous materials.

## Reducing Water Use

Core Policy >>

### Water Conservation

Water-related issues are diverse. They include shortages of domestic-use water due to population growth and regional conflict, as well as impact on agricultural crops, land subsidence from overuse of ground water, and ecological destruction from wastewater. As water conservation is an essential aspect of resolving these issues, we have set targets for water conservation, such as by limiting water use during business operations. We are working across the world to achieve these targets.

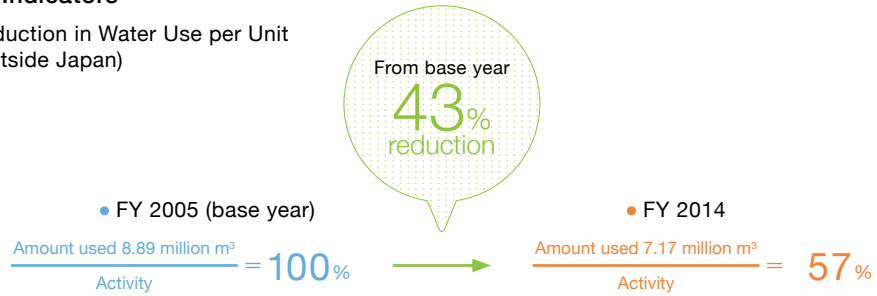
Results >>

### Actions and Achievements

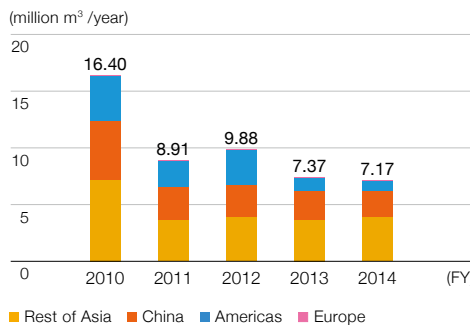
In fiscal 2014, we set a target for our business sites outside Japan of a 28% reduction (over the fiscal 2005 base year) for water use per unit and achieved a 43% reduction. A growing portion of our production takes place outside Japan, and we are promoting efficient use of water through conservation worldwide.

**Key Indicators**

- Reduction in Water Use per Unit (Outside Japan)



- Water Use Outside Japan



**Breakdown by Region (million m<sup>3</sup>/year)**

	2010	2011	2012	2013	(FY) 2014
Europe	0.02	0.03	0.03	0.02	0.02
Americas	4.05	2.35	3.15	1.20	0.98
China	5.16	2.92	2.85	2.50	2.32
Rest of Asia	7.17	3.61	3.85	3.65	3.85
Total	16.40	8.91	9.88	7.37	7.17

Key Approaches >>



A wastewater treatment facility.

Key Approaches >>



A newly installed water pipe.

Key Approaches >>



The company's xeriscape garden.

**Recycling Water During Production**

Hitachi Elevator (China) Co., Ltd., makes elevators and escalators in China. It recycles wastewater from production and reuses it to water plants on factory grounds, wash down roadways, and flush toilets, among other uses, at all five production bases. Wastewater is also collected and treated for reuse in the production processes. The paint line at the Shanghai factory uses wastewater to degrease; the paint line at the Tianjin factory utilizes wastewater in its water curtain system. As a result of these measures, water use in fiscal 2014 was reduced by around 100,000 m<sup>3</sup> at the five production bases.

**Conserving Water by Re-evaluating Piping**

Tata Hitachi Construction Machinery Company Private Limited manufactures and sells construction equipment. As part of water conservation initiatives at its factory in Jamshedpur, India, the company in fiscal 2014 updated the layout of piping inside the facility to reduce water leakage, removed unnecessary pipes, and restricted unidentified draws on water resources. Other efforts were the determination of appropriate amounts of water for watering plants within the factory premises and the installation of automatic sensors in toilets. Through these methods, the company reduced water use by 7%, or 7,500 m<sup>3</sup>, compared to the previous year.

**Reducing Water Use with a Xeriscape Garden**

Hitachi Computer Products (America), Inc., produces and sells ICT products in the Americas. The company introduced a xeriscaping project, a type of environmental landscaping that requires little or no additional water, with a view to conserving water resources. Xeriscaping began in the United States and has quickly become a basic component of environmental landscaping in Western countries. By utilizing native plants to lay out a xeriscape garden at the entrance of the factory grounds, the company was able to reduce water use by around 380 m<sup>3</sup> annually.



Core Policy >>

### Next Steps

Water, as the base for all life on Earth, is an essential and irreplaceable resource. Water resources, which are crucial for a sustainable society, face a wide variety of risks including global warming and pollution, as well as growing demand from worldwide population growth, economic development, and urbanization. We are cooperating with countries and local communities to tackle these issues by working to effectively manage water used in our operations.

## Chemical Substance Management Initiatives

Core Policy >>

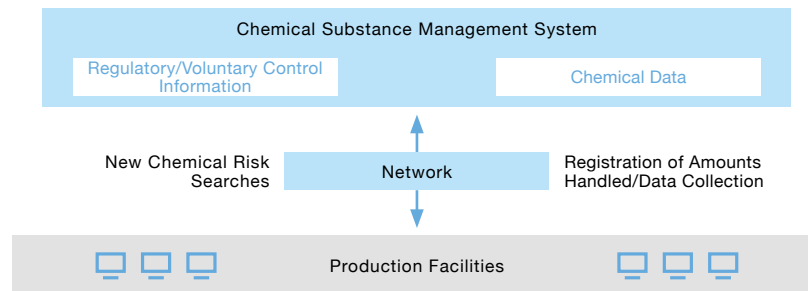
### Managing Chemical Substances

To deal with chemical risk and to comply with laws and regulations, we assess chemical substances used in our business operations and manage risk in three ways: prohibition, reduction, and control. In addition, we reduce risk by educating chemical substance handlers and managers on laws and regulations and on proper risk assessment.

#### The CEGNET Chemical Substance Management System

Since 1998, Hitachi has operated a database for chemical substance management called CEGNET to keep track of the latest laws and regulations and the Company's own voluntary regulations, ensuring the management of newly introduced chemical substances.

Chemical substances used in our operations are also registered with CEGNET. By collecting and aggregating data on the amount of chemical substances handled, emitted, and transferred, we work to reduce our handling of chemicals.



Results >>

### Actions and Achievements

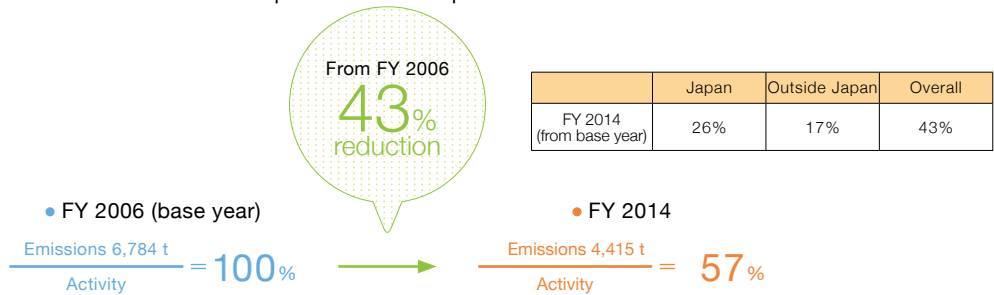
To prevent air pollution, we have cut emissions from 41 volatile organic compounds (VOCs) designated on the basis of a scheme by the Japanese Ministry of the Environment. Initiatives in fiscal 2014 to reduce VOC emissions included switching from paints containing VOCs to water-soluble and powder paints, expanding the use of stainless steel and plated sheet steel chassis, and altering washing processes. We successfully achieved our targets through these initiatives. 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 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 of 10 kilograms or more per year, recognizing the need to control these substances as well.

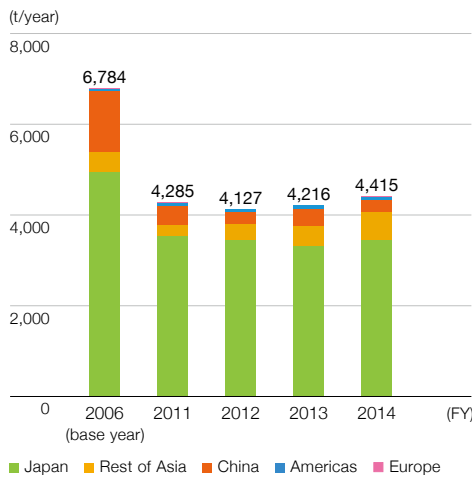
\*1 Emissions of SOx and NOx: Calculated as the product of concentration and exhaust air-flow rate.

### Key Indicators for Chemical Substance Management

#### Reduction in VOC Atmospheric Emissions per Unit



#### Reducing VOC Atmospheric Emissions



#### Breakdown by Region (t/year)

	(base year)	2011	2012	2013	(FY)
	2006				2014
Europe	8	28	6	8	12
Americas	54	62	53	76	66
China	1,339	427	273	372	281
Rest of Asia	438	232	346	447	604
Japan	4,945	3,536	3,449	3,313	3,452
Total	6,784	4,285	4,127	4,216	4,415

#### Key Approaches >>



Coating the frame of a hydraulic excavator.

### Use of High-Solid Coatings to Reduce VOCs

Since fiscal 2006, Hitachi Construction Machinery Co., Ltd.'s Tsuchiura Works has been working to switch to high-solid (low-solvent) coatings for hydraulic excavator components, enabling VOC content to be reduced to 40%–50% of previous levels. Tsuchiura Works has gradually expanded the use of these coatings to more components, including covers, tanks, weights, and frames. In fiscal 2014, VOC emissions were reduced by approximately 270 tonnes compared to conventional coatings.

Key Approaches >>



Loading an elevator hatch for coating.

Key Approaches >>



Disposing of waste materials with low PCB concentrations.

Core Policy >>

### Electrodeposition Coating to Reduce VOCs

In 2014, Hitachi Elevator (China) Co., Ltd., switched from electrostatic spray coating to electrodeposition coating for the first coating of elevator parts including hatches and car tops. This reduced VOC emissions from coatings by 3 tonnes. Hitachi Elevator also changed the waste gas treatment method from water curtains to catalytic combustion and activated carbon adsorption. This improved VOC removal efficiency from 36% to 90% and reduced VOCs in waste gases by 1.7 tonnes.

### Managing Storage of Equipment Containing PCBs

We gather and manage information on storing and handling equipment that uses polychlorinated biphenyls (PCBs) every year, positioning this as one environmental management item of the Hitachi Group. We furthermore promote the efficient and thorough treatment of these units. Waste materials with high PCB concentrations are subjected to a treatment program based on requirements set by the national government of Japan; we are successfully reducing the amount of PCB-containing equipment in storage. Waste materials with low PCB concentrations are processed by treatment companies that have been certified and have the capacity to handle them. In fiscal 2014, waste materials containing PCBs stored at 39 business sites were treated.

### Next Steps

For painting and coating processes that account for a large percentage of VOC atmospheric emissions, we are switching to alternative substances with low VOC content and finding ways to improve the processes. We are aiming for a 40% reduction in VOC atmospheric emissions per unit by fiscal 2015.

## Environmental Compliance

Core Policy >>

### 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 take every possible step to prevent problems or their recurrence and to strengthen controls by sharing information on environmental laws and regulations, as well as examples of infringements, throughout the Group.

Results >>

### Actions and Achievements

In fiscal 2014, we received a worldwide total of 9 notices concerning water quality or waste matter and complaints about noise or odors, all of which were promptly addressed.

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

#### Global Notices and Complaints

	Water quality	Waste matter	Other complaints
Fiscal 2014 cases	3	3	3

To help prevent pollution of soil and groundwater, we are working to complete decontamination of soil and water at business sites where chemical substances have been used or to confirm that they are contamination free. At other business sites, we continue to carry out cleaning and observation activities as needed.

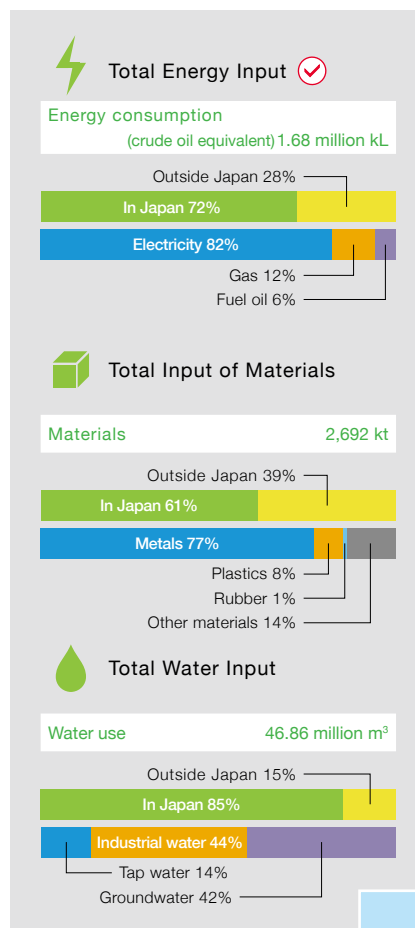
## Environmental Load

Core Policy >>

### Data on Environmental Load from Operations (FY 2014)

The data below shows the resource inputs and the environmental load for Hitachi Group operations in fiscal 2014.

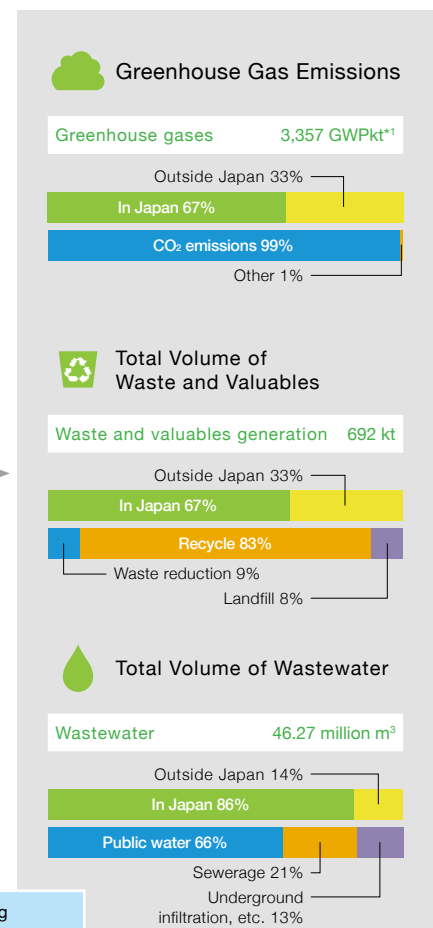
#### • Total Input of Resources



Operations

#### • Total Output of Environmental Load

Products shipped: 3,489 kt (in Japan), 840 kt (outside Japan)



#### Water recycling

In Japan: 28.49 million m<sup>3</sup>  
Outside Japan: 0.7 million m<sup>3</sup>

\*1 Global warming potential: A coefficient derived by conversion into equivalent in tonnes of CO<sub>2</sub>.

## 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) 1.68 million kL

		In Japan	Outside Japan
Electricity		3.9 billion kWh (38,000 TJ)	1.5 billion kWh (15,000 TJ)
Gas	Natural gas	70 million m <sup>3</sup> (2,900 TJ)	50 million m <sup>3</sup> (2,100 TJ)
	LPG, etc.	45,000 t (2,300 TJ)	13,000 t (700 TJ)
Fuel oil (heavy oil, kerosene, etc.)		90,000 kL (3,500 TJ)	5,000 kL (200 TJ)

#### Total Input of Materials

Materials: 2,692 kt

		In Japan	Outside Japan
Metals		1,249 kt	822 kt
Plastics		126 kt	76 kt
Rubber		4 kt	30 kt
Other materials		276 kt	109 kt
Chemicals	PRTR substances* <sup>1</sup> handled	154 kt	38 kt
	Ozone-depleting substances handled	9 t	8,365 t
	Greenhouse gas substances handled	3,877 t	1,201 t

\*1 The 462 chemicals designated in Japan's Pollutant Release and Transfer Register (PRTR) Law.

#### Total Water Input

Water use: 46.86 million m<sup>3</sup>

	In Japan	Outside Japan
Tap water	4.58 million m <sup>3</sup>	1.92 million m <sup>3</sup>
Industrial water	17.41 million m <sup>3</sup>	2.96 million m <sup>3</sup>
Groundwater, etc.	17.70 million m <sup>3</sup>	2.29 million m <sup>3</sup>

## Total Output of Environmental Load

Environmental load output from Hitachi Group operations.

### Greenhouse Gas Emissions

Greenhouse gases: 3,357 GWPkt

		In Japan	Outside Japan
CO <sub>2</sub> emissions		2,219 kt	1,094 kt
Other GHGs	SF <sub>6</sub> (sulfur hexafluoride)	20 GWPkt	0 GWPkt
	PFCs (perfluorocarbons)	2 GWPkt	0 GWPkt
	HFCs (hydrofluorocarbons)	17 GWPkt	4 GWPkt
	N <sub>2</sub> O, NF <sub>3</sub> , CH <sub>4</sub>	1 GWPkt	0 GWPkt

### Total Volume of Waste and Valuables

Waste and valuables generation: 692 kt

		In Japan	Outside Japan
Waste reduction		56 kt	9 kt
Recycling		387 kt	186 kt
	Reuse	4 kt	1 kt
	Materials recycled	370 kt	182 kt
	Thermal recovery	13 kt	3 kt
Landfill		20 kt	34 kt
Chemicals	PRTR substances discharged or transferred	5 kt	0.3 kt
	SO <sub>x</sub> (sulfur oxides)	44 kNm <sup>3</sup>	5 kNm <sup>3</sup>
	NO <sub>x</sub> (nitrogen oxides)	290 kNm <sup>3</sup>	60 kNm <sup>3</sup>
	Ozone-depleting substances emitted	3 t (0 ODP/t <sup>**</sup> )	0 t (0 ODP/t)

\*\*1 ODP (ozone depletion potential): A coefficient derived by conversion into equivalent in tonnes of CFC-11 (trichlorofluoromethane).

### Total Volume of Wastewater

Wastewater: 46.27 million m<sup>3</sup>

		In Japan	Outside Japan
Public water		28.80 million m <sup>3</sup>	1.66 million m <sup>3</sup>
Sewerage		5.47 million m <sup>3</sup>	4.09 million m <sup>3</sup>
Underground infiltration, etc.		5.62 million m <sup>3</sup>	0.63 million m <sup>3</sup>
Water quality	BOD (biochemical oxygen demand)	252 t	105 t
	COD (chemical oxygen demand)	138 t	301 t

## Environmental Accounting

Core Policy >>

### Environmental Accounting

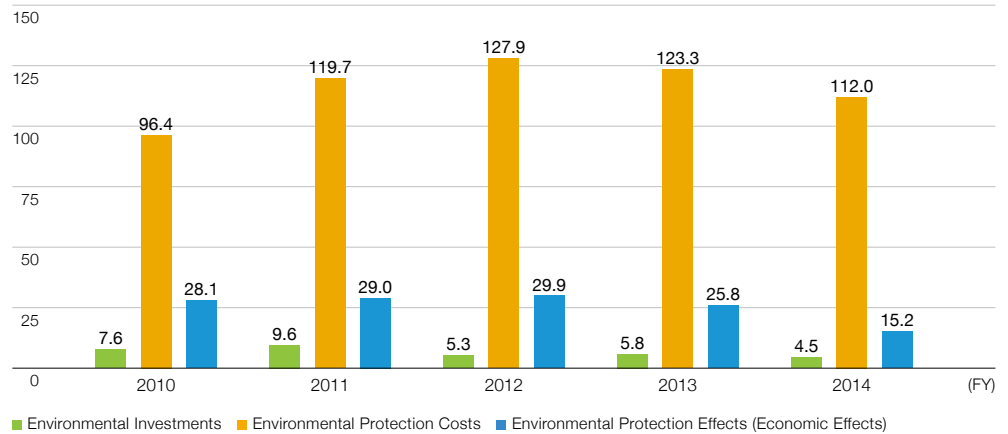
Hitachi has adopted and made public a set of environmental accounting procedures conforming to the Japanese Ministry of the Environment's 2005 Environmental Accounting Guidelines. We have used the results of these procedures to raise the efficiency of our environmental investments and activities, more effectively allocating management resources to our ongoing environmental efforts.

Results >>

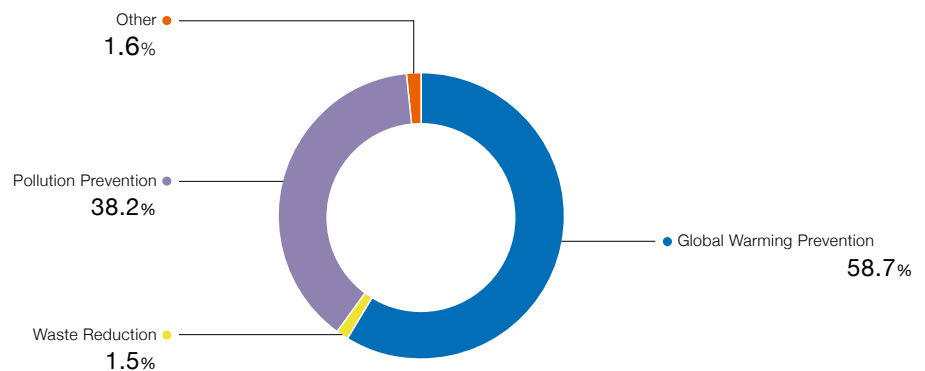
### Achievements

#### Environmental Investments, Environmental Protection Costs, and Economic Effects

(billions of yen)



#### Fiscal 2014 Environmental Investment by Countermeasure



Environmentally Conscious Production

Environmental Investments

		Costs (billions of yen)				
	Description	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
Total investment	Investment in energy-saving equipment and equipment that directly reduces environmental load	7.60	9.61	5.28	5.81	4.46

Environmental Protection Costs

		Costs (billions of yen)				
Item	Description	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
<b>Expenses</b>						
Business area	Maintenance costs for equipment with low environmental load, depreciation, etc.*1	27.98	27.78	31.84	38.63	26.90
Upstream/downstream	Green procurement expenses, recovery and recycling of products and packaging, recycling expenses	1.60	1.43	1.38	1.27	1.09
Administration	Labor costs for environmental management, implementation and maintenance of environmental management system	8.61	8.25	7.67	6.77	6.47
Research and development	R&D to reduce environmental burden caused by products and production processes, product design expenses	57.56	79.81	84.71	75.62	76.12
Social activities	Planting, beautification, and other environmental improvement expenses	0.31	0.45	0.41	0.51	0.36
Environmental remediation	Environmental mitigation costs, contributions, and charges	0.37	1.94	1.90	0.53	1.03
Total		96.44	119.66	127.91	123.34	111.96

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

Environmental Protection Effects

● Economic Effects\*1

		Costs (billions of yen)				
Item	Major FY 2014 Activities	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
Net income effects	Recovering value from waste by sorting and recycling	9.62	13.72	17.85	15.98	7.54
Reduced expenses effects	Installing high-efficiency equipment (lighting, power supply)	18.45	15.27	12.07	9.82	7.65
Total		28.07	28.98	29.92	25.80	15.19

\*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

		Amount Reduced				
Item	Major FY 2014 Activities	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
Reduction in energy used during production	Installing LED lighting, upgrading air-conditioning equipment, etc.	129 million kWh	93 million kWh	107 million kWh	70 million kWh	68 million kWh
Reduction in landfilled waste incurred during production	Promoting sale of waste material, reducing volume of liquid waste, recycling, etc.	3,623 t	4,754 t	3,788 t	2,420 t	3,979 t

\*1 As with depreciation costs, benefits from equipment investments are calculated using the straight-line method over five years.

Efficiency of Environmental Load Reduction\*1

Item	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
Efficiency of energy reduction efforts (million kWh/100 million yen)	2.6	2.0	1.7	1.3	1.2
Efficiency of landfilled waste reduction efforts (t/100 million yen)	121	183	146	95	166.7

\*1 Environmental load reduction divided by reduction costs.



## Preserving Ecosystems

### Hitachi's Approach

**As economic development and urbanization continue on a global scale, biodiversity faces risks from continued environmental degradation, pollution, and overuse of natural resources.**

**Hitachi believes that preservation of ecosystems is vital for sustaining biodiversity and ensuring a vibrant environment for coming generations. This idea forms a pillar of our Environmental Vision and our Group-wide conservation efforts.**

### Our Actions in Fiscal 2014

In fiscal 2014, we continued carrying out a variety of initiatives with our diverse stakeholders to preserve ecosystems.

- Business Assessment on the Preservation of Ecosystems conducted at 203 business sites (excluding the headquarters of each company) in and outside Japan.
- Biodiversity action guidelines established for the electrical and electronics industry by a working group of four Japanese electrical and electronics industry associations, with Hitachi as a member.
- Water management evaluation tool developed for ecosystem-conscious corporations by the Japan Business Initiative for Biodiversity (JBIB) Water and Ecosystems Working Group, with Hitachi as a member; proposals made for water management and collaboration with stakeholders, with a focus on ecosystems preservation and risk management.

### Policies and Frameworks >>

- The Japan Electrical Manufacturers' Association
- Japan Electronics and Information Technology Industries Association
- Communications and Information Network Association of Japan
- Japan Business Machine and Information System Industries Association
- Japan Business Initiative for Biodiversity (JBIB)

### Preserving Ecosystems

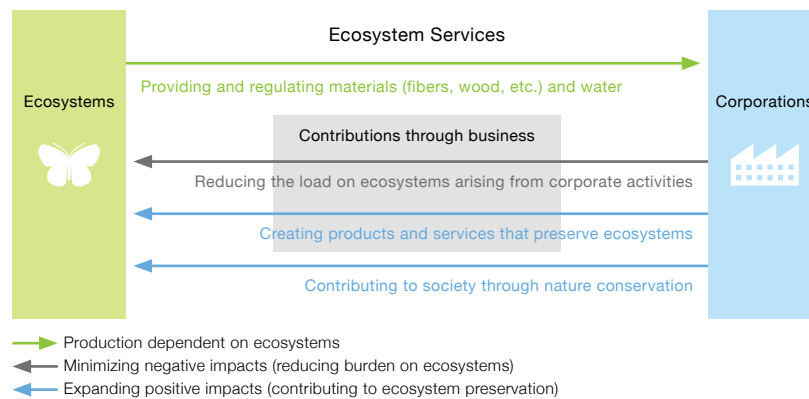
We have made the preservation of ecosystems a pillar of our Environmental Vision. An important aim of our Environmental Action Plan for 2013 to 2015 is carrying out the Business Assessment on the Preservation of Ecosystems. We are also active outside the Company, such as participating in the biodiversity working group of four Japanese electrical and electronic industry associations\*<sup>1</sup> and the Japan Business Initiative for Biodiversity (JBIB). We continue to raise awareness and knowledge within Hitachi and to promote ecosystem preservation throughout the entire Group while laying the groundwork for environmental programs through activities outside the Company.

\*<sup>1</sup> The Japan Electrical Manufacturers' Association (JEMA), Japan Electronics and Information Technology Industries Association (JEITA), Communications and Information Network Association of Japan (CIAJ), and Japan Business Machine and Information System Industries Association (JBMA).

## Corporate Relationship with Ecosystems

Corporations depend on “ecosystem services,” including the natural supply of materials like fibers and wood, and the ability of ecosystems to maintain the quality and quantity of air, water, and soil. Contributing to ecosystem preservation through both business and social activities enables companies to continue receiving these benefits and to restore ecosystems. Through its business activities, Hitachi is promoting designs and production methods that reduce the impact on ecosystems throughout the product life cycle (material procurement, production, distribution, use, collection and disassembly, and appropriate disposal and recycling). We are also increasing the number of products and services for direct preservation of ecosystems, such as water purification and air pollution prevention measures. We view chemical substance management as part of ecosystem preservation and continually ensure that it is carried out correctly. To contribute to society, we encourage employee volunteer programs, such as tree planting and ecological surveys of rare plants and animals, as well as other programs that preserve ecosystems.

### Corporations and Ecosystems



## Encouraging Action to Preserve Ecosystems

The *Hitachi Group Guide to Preservation of Ecosystems* is a guidebook for outlining the relationship between corporate activities and ecosystems, introducing trends and examples of initiatives being taken around the world, and making recommendations.

To deepen employee understanding, in fiscal 2014 we carried out the *Business Assessment on the Preservation of Ecosystems* at 203 factories and offices (excluding the headquarters of each company) in and outside Japan. This is a self-assessment sheet covering the relationship between operations and ecosystems. Through these assessments we encourage actions that preserve ecosystems, taking in broad perspectives including design, procurement, manufacturing, transportation, and product use. We also aim to stimulate thinking about the development of new products and services related to ecosystem preservation. With regard to contributions to society through nature conservation, we are developing a deeper appreciation of ecosystem preservation by studying the impact on and benefits to local ecosystems.

We will improve each Group company's initiatives through this assessment program and implementation of action plans from fiscal 2016 onward.

Key Approaches >>

The WBCSD's Business Ecosystems Training (BET) materials

The biodiversity WG of 4 Japanese electrical and electronic industry associations (Japanese)

Key Approaches >>

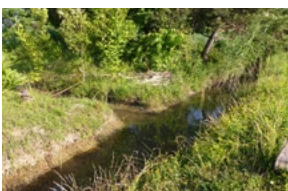
Japan Business Initiative for Biodiversity (JBIB)

Preserving Ecosystems

Key Approaches >>



The biotope shortly after it was constructed.



The biotope as of May 2015.

Developing Learning Materials for Employees

In February 2012, the World Business Council for Sustainable Development (WBCSD) developed and released Business Ecosystems Training (BET) materials. Hitachi prepared Japanese-language versions of all modules, as well as instructor manuals, and made them available on the Company website.

In fiscal 2013–14, the biodiversity working group of four Japanese electrical and electronic industry associations developed the educational tool *Let's Study Biodiversity (LSB)*. This tool demonstrates the relationship between the environmental preservation activities implemented by companies in these industries and the global Aichi Biodiversity Targets. In fiscal 2014, the working group conducted a pilot project that provided training using the *LSB* to environmental managers of Hitachi Metals Group companies. In March 2015 it established biodiversity action guidelines for the electrical and electronics industry. In addition, the Hitachi, Ltd. environmental manager conducted an *LSB* seminar at the Mito Works.

Ecosystem-Conscious Water Management

The Japan Business Initiative for Biodiversity (JBIB) is an organization that aims to help preserve ecosystems through joint research conducted by a diverse range of companies. In pursuit of that goal, the JBIB convenes various working groups to engage in biodiversity-related activities including voluntary research, development of tools, their application in the workplace, and information sharing.

Hitachi has been taking part in the Water and Ecosystems Working Group. In 2013, the group issued its *Corporate Water Management Guide to Conserve Biodiversity*. This was followed in 2015 by development of the *Evaluation Tool for Corporate Water Management to Conserve Biodiversity*. This is a tool for examining and making proposals for water management across the value chain, the river basin on which a factory depends, and at company sites, as well as for collaboration with stakeholders, with a particular focus on ecosystems preservation and risk management. The working group plans to release the evaluation tool to JBIB members and seek their input on it while also carrying out case studies and seeking to make the tool even more useful. The hope is for even more people to make use of it as a means of expanding the scope of water management to contribute to the preservation of ecosystems.

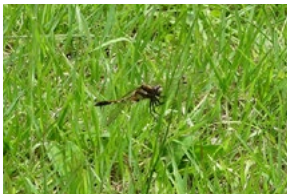
Building an Onsite Biotope (Japan)

Hitachi Construction Machinery Tierra Co., Ltd., located near Lake Biwa in Shiga Prefecture, carries out a wide variety of environmental initiatives, including those to preserve ecosystems.

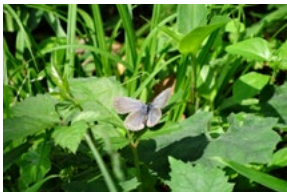
As part of its grounds management, the company regularly updates a map it created in 2013 detailing the ecosystems on its premises and informs employees about different animals found there. Recently sighted varieties of land and water fauna include Japanese hares, lake prawns, and native species of crayfish and killifish. In 2014, the company conducted a broad survey of wildlife on the grounds.

Hitachi Construction Machinery  
Tierra Co., Ltd. CSR Environmental  
Activities (Japanese)

Key Approaches >>



A ko-oni yanma (*Sieboldius albardae*) dragonfly.



A pale grass blue butterfly.

Key Approaches >>



Participants removing invasive species.

The company has also begun developing a biotope by planting trees along an embankment created with topsoil removed during expansion of a parking area. Roughly 30 trees were planted along the 700 m<sup>2</sup> embankment, including bayberry and other species whose sap attracts stag and rhinoceros beetles and serves as winter food for birds including Japanese white-eyes and Japanese bush warblers. In this way the company is seeking to create a forested area over a 10–20 year timespan.

### Helping Survey Wildlife near Kokubunji Station (Japan)

The grounds of the Central Research Laboratory, Hitachi, Ltd., were chosen for a wildlife survey as part of the redevelopment of the north side of Kokubunji Station in western Tokyo. From June 2014 to January 2015, Information & Telecommunication Systems Company joined the surveys conducted by Sumitomo Realty & Development Co., Ltd., and Takenaka Corporation, which were held three times each for insects and bird life, respectively.

The surveys utilized Hitachi's voice SNS "talkfield," a smartphone application allowing users to post and share voice messages, to instantly register locations and pictures of wildlife as well as share information via the cloud. The system's search function also allows survey results to be reviewed easily. The survey also provided an opportunity to test Hitachi's "Keitai Kaisaku," a web-based ASP service for creating and sharing documents via mobile devices. The results of the tests of these systems will be used to develop the next generation of ICT platforms supporting ecosystem preservation.

The grounds of the Central Research Laboratory are home to a forest boasting 27,000 trees from 120 species, including sawtooth oaks, zelkovas, and Himalayan cedars that are over 100 years old. A pond has also been created by diverting spring water. Hitachi intends to preserve the grounds as an example of the natural habitat of the Musashino area in western Tokyo.

### Removing Invasive Species (China)

In June 2014, Hitachi Financial Equipment System (Shen Zhen) Co., Ltd., took action to preserve the ecosystem of nearby Lianhuashan Park by removing invasive species that were found living there.

Thirteen employees joined a group of around 50 participants from three Shen Zhen companies to remove a significant amount of *Mikania micrantha*, an invasive species of vine that damages or kills native plants by robbing them of valuable sunlight and water. The company intends to continue its efforts while working to raise employee awareness of the need for ecosystem preservation.

Key Approaches >>



The International Coastal Clean-Up campaign.



Mahogany sapling planting.

## Nature Conservation Activities Around Subic Bay

Subic Bay, located about 100 kilometers north of Manila Bay in the Philippines, has unspoiled environs. But at the same time, a number of companies are operating in the free economic zone and the area is being developed as a resort. Situated in this area, Hitachi Terminals Mechatronics Philippines Corporation (HTMP) is taking various actions continuously with the cooperation of the Subic Bay Metropolitan Authority (SBMA) to preserve the diversity of nature.

Firstly, in order to learn from nature and to grasp its status, employees have participated in twice-yearly events since 2011 to count the number of giant fruit bats, which live in the undisturbed forests and play an important part in the forest ecosystem of the Subic Bay area.

As an action to preserve the beauty of the nature and its ecosystems, the company has since 2012 been participating in the International Coastal Clean-Up (organized by SBMA in the Subic Bay area), an annual event led by an American NGO, Ocean Conservancy, held every September around the world.

Furthermore, to grow the forests, the company took part in a tree-planting activity in August 2014. In the activity, a total of 300 mahogany seedlings, a local species that tolerates a wide range of soil types, were planted in a grassland area of the Subic Bay Freeport Zone.

These activities to preserve the forests and beautiful coasts, however, can be continued for a long time only with positive support of the local communities. Thus, to raise local awareness of the environment, the company has been providing environmental education for primary school children (average age 11-12) in the nearby city of Olongapo since fiscal 2010.

HTMP believes that the combination of various activities will have positive impacts both for the community, including employees, and for the ecosystems in the long run, and intends to continue such efforts.

## Environmental Communication

### Hitachi's Approach

**To build a sustainable society, it is vital for a company to provide information to stakeholders on its activities to reduce the burden on and conserve the environment while also gathering feedback from a wide range of stakeholders and seeking to deepen mutual understanding.**

**Hitachi is making a concerted effort to provide such information on environmental activities, at the same time striving to improve those activities by promoting mutual communication. In addition, we aim to raise environmental awareness throughout society with this broad-based communication.**

### Our Actions in Fiscal 2014

In fiscal 2014, we employed a variety of methods to diffuse environmental information, including setting up events for direct dialogue with stakeholders. We also promoted environmental communication to deepen our relationships with stakeholders in and outside Japan.

- Hitachi was selected as one of the companies on the 2014 Climate Performance Leadership Index compiled by the CDP,\*1 a nonprofit organization.
- The *Hitachi Group Sustainability Report 2014* won the Prize for Excellence in Environmental Reporting at the 18th Environmental Communication Awards held by the Japanese Ministry of the Environment and the Global Environmental Forum.
- Hitachi held a special exhibition at the Hitachi Innovation Forum to display information on its Social Innovation Business activities aimed at addressing societal issues.

\*1 The CDP is an international NPO based in London that provides a global system that can be used to gauge, disclose, manage, and share key environmental information on companies and cities. On behalf of 767 investors, representing US\$92 trillion in assets, the CDP sends a survey on climate change to corporations and then evaluates the results. In 2013, the organization shortened its name from the Carbon Disclosure Project to CDP.

Core Policy >>

### Promoting Environmental Communication

Hitachi is devoted to further improving its environmental activities by sharing information with its diverse stakeholders on issues facing the environment, various aspects of those issues, and the Company's performance in addressing them, with an eye to deepening mutual communication.

Key Approaches >>

### Information Reporting and Third-Party Evaluation

We have published reports every year on our environmental protection initiatives, their results, and our plans. The *Hitachi Group Environmental Sustainability Report* was issued each year in Japanese starting in fiscal 1998. In fiscal 2011, this report was combined with the *Hitachi Group CSR Report* as the *Hitachi Group Sustainability Report*, in response to the global need for a sustainability report.

In fiscal 2014, the *Hitachi Group Sustainability Report 2014* was awarded the Prize for Excellence in Environmental Reporting at the 18th Environmental Communication Awards, presented by the Japanese Ministry of the Environment and the Global Environmental Forum. This marks the third consecutive year for the report to garner an award, following the Sustainability Report Award received in fiscal 2012 and a Prize for Excellence won in fiscal 2013. Moreover, our efforts to curb greenhouse gas emissions and mitigate the risk of climate change have won high praise from the nonprofit organization CDP, which selected Hitachi for its Climate Performance Leadership Index 2014 (CPLI). In fiscal 2014, Hitachi won high praise from other outside organizations for its environmentally conscious products. Hitachi Appliances Inc. won the Grand Prize for Excellence in Energy Efficiency and Conservation for its room air conditioners and Infrastructure Systems Company, Hitachi, Ltd., for its energy-saving spot cooling system for data centers. Details on awards received in fiscal 2014 are available on our website.

CSR/Environmental reports published by Hitachi Group companies

Fiscal 2014 awards for Hitachi Group companies

Key Approaches >>



Environmental Activities

Key Approaches >>



The special exhibits zone at the Hitachi Innovation Forum.

Key Approaches >>

Environmental Communication

### Sharing Information on Our Website

In addition to the *Sustainability Report*, the Environmental Activities section of the Hitachi website provides details about the main environmental services and activities of the Hitachi Group. Hitachi businesses at the forefront of environmentally conscious initiatives are showcased on the Eco-Factories & Offices section of the website, where 19 organizations were newly added in fiscal 2014.

### Dissemination of Information Through Exhibitions and Forums

Hitachi values the opportunity for direct dialogue with stakeholders and participates in a number of environment-related exhibitions. At the Hitachi Innovation Forum held in October 2014 in Japan, a special exhibition was presented on the theme of Hitachi's Social Innovation Business activities aimed at addressing societal issues. The exhibition presented a range of Hitachi innovations that address issues confronting society, including global warming and other environmental challenges. Outside Japan, we took part in the International Greentech & Eco Products Exhibition & Conference Malaysia (IGEM) in October 2014, where we presented Hitachi's environmental conservation technologies and solutions. In addition, we also provided opportunities for discussions with various stakeholders on environmental issues. At the Hitachi-sponsored sixth Eco-Engineering Forum,\*1 held in Washington DC in June 2014, lectures and panel discussions were held on the event's main focus, "The New Eco-System of Information: Harnessing the Potential of Big Data."

\*1 Eco-Engineering Forum: An event jointly sponsored by the American Association for the Advancement of Science and the Brookings Institution.

### Environmental Communication

Hitachi promotes environmental communications, holds a variety of social contribution activities on environmental themes, and works to deepen exchanges with local stakeholders. In fiscal 2014, we carried out environmental education and tree planting, as well as cleanup activities, in areas around the world where we do business.



Volunteers gather to clean the banks of the Tone River.

### Cleaning the Banks of the Tone River (Japan)

Every year the Gunma Works of Hitachi Automotive Systems, Ltd., helps clean up the riverbank along the Tone River near the city of Isesaki. The event is held on the Sunday immediately before or after May 30, which has been designated “No-Garbage Day” in Japan. The activity, launched in 2004, was held for the tenth time in 2014, with 310 employees and family members participating along with volunteers from other local companies, for a total of 450 participants. A roughly 3-kilometer area along the river, stretching from Goryo Bridge to Bando Bridge, was cleaned up, resulting in the collection of 1.3 tonnes of garbage. This cleaning effort was recognized by the Ministry of Land, Infrastructure, Transport, and Tourism and was granted a certificate of appreciation in 2009.



Participants in the Horqin Desert tree-planting project.

### Planting Trees in the Horqin Desert (China)

For the past 10 years, starting in 2004, Hitachi Construction Machinery (Shanghai) Co., Ltd., has been involved in a project to plant trees in a 100,000 m<sup>2</sup> area of the Horqin Desert. Volunteers for this “Hitachi Construction Machinery Forest” project, which is being carried out in cooperation with local residents, have planted over 10,000 trees in the area, including poplars and sea buckthorn trees, and overseen their growth. This has revived plant life, which in turn has brought wild rabbits and other small animals to this habitat. The second 10-year phase of the project began in 2014, with plans calling for the company and its dealers in China to collectively plant trees and other vegetation across 130,000 m<sup>2</sup> of the desert.



The Environmental Conservation Workshop in China.

### Promoting Environmental Education (China)

Hitachi Air-conditioning & Refrigerating Products (Guangzhou) Co., Ltd., held an event in December 2014 to raise environmental preservation awareness among company employees and their family members. At the event, called the Environmental Conservation Workshop, participating children used microscopes they built themselves to observe the cellular structure of the roots, stems, and other parts of plants. This view of the relationship between plants and the environment on a microscopic level brought environmental issues to life for the participants, while also underscoring the vital importance of preserving the natural environment. The children had the chance to visit the production facility, including its wastewater treatment facility, to see where their parents work and learned more about the company’s environmental conservation efforts.



A scene from the European Cleanup Day.

### Participation in Forest Cleanup Activity (Europe)

In cooperation with the village of Vacarisses, Spain, Hitachi Air Conditioning Products Europe (HAPE) participated in the European Cleanup Day by helping to tidy up the forest surrounding the community. Eighteen people participated in the activity, including 11 from HAPE, collecting a total of 6 kilograms of garbage, 2 kilograms of used containers, 3.5 kilograms of used bottles and other glassware, and 1.6 kilograms of waste paper. In addition, as part of the activity, a biologist from a center for hikers in Vacarisses gave a talk on local flora, and a HAPE staff member with a degree in geology spoke about the area’s geology. HAPE, which was taking part in this activity for the first time, is considering further participation in the future.



## Environmental Engagement

### Engagement Highlight

#### Hitachi Global Lights-Off Campaign



Turning off the LED and neon lights on the Tsutenkaku signboard in Osaka as part of the Hitachi Global Lights-Off Campaign.

Hitachi Global Lights-Off Campaign 

Hitachi has adopted a policy of turning off lighting at offices on the summer solstice (usually June 20 or 21) and on July 7, the Tanabata festival in Japan. Hitachi also participates in Earth Hour, the major global environmental campaign hosted by the World Wide Fund for Nature (WWF). On March 28, 2015, Hitachi turned off its Tsutenkaku LED neon signboard in Osaka, as well as switching off lights at other signboards and offices worldwide, including in Bangkok, Dubai, Hong Kong, Shanghai, and Sydney. Hitachi extended its effort by also turning off interior and exterior lighting at production sites and office lights during the five days prior to the event. In total, 90 Group companies at 234 locations in 23 countries participated in the effort. Moving forward, Hitachi will continue to promote this activity as a part of its awareness-raising initiatives to curb global warming.

### In Focus

#### Creating Value by Reducing Environmental Burden

To better position environmental strategy within the Hitachi business strategy, we have formulated an Environmental Action Plan that corresponds to the Mid-term Management Plan of the Hitachi Group. We are making steady progress in our environmental activities by implementing this action plan while steadily making improvements to it.

We set the concrete objective for fiscal 2015 of having environmentally conscious “Eco-Products” make up 90% of our overall sales. Toward that end, we are expanding the Eco-Product range in line with the development plans for each product and service, in addition to striving to enhance the value of our products and services by reducing the burden they place on the environment. This helps in the end to grow our business as well.

To reduce the environmental burden of our business activities, we also present factories and offices that show remarkable consideration for the environment and outstanding results in this area with our Eco-Factory & Office Select certification. Hitachi aims to continue promoting environmentally conscious production through these energy-efficient suppliers of products and services.

In fiscal 2015, we will work to further promote environmental efforts by formulating the next Environmental Action Plan, which will correspond to the Mid-term Management Plan to be decided in fiscal 2016.



Hitachi Eco Education Classroom Program in China

## Our Ongoing CSR Activities:



# SOCIAL

Hitachi's corporate activities are supported by a wide range of stakeholders, including suppliers, employees, customers, shareholders and investors, and local community members. As a corporation that conducts business around the globe, we are striving to contribute to a sustainable society in collaboration with our stakeholders in each region based on our constant awareness of the expectations of society toward us and of the responsibilities we bear.

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## Respect for Human Rights

### Hitachi's Approach

**As our value chain expands to a global scale, human rights risks have increased worldwide in relation to working environments, business practices in each region, and supplier relations that are different from region to region. Moreover, corporations are expected to address human rights issues in accordance with international standards such as the UN Guiding Principles on Business and Human Rights.**

**In carrying out our business, Hitachi recognizes human rights as a key issue related to risk management. On the basis of this awareness, we will respect the human rights of all stakeholders, including our employees and communities in every country and region where we operate, and those throughout supply chains.**

**Toward that end, we are engaged in various initiatives under the Hitachi Group Human Rights Policy, such as our human rights training for employees and the development of a guidance document on human rights due diligence.**

### Our Actions in Fiscal 2014

Hitachi has added the perspective of Business and Human Rights to its existing policies related to human rights, developing a guidance document on human rights due diligence that explains procedures to embed human rights into everyday business practices. We are also working to deepen employee awareness of the issues through efforts that include President and COO Toshiaki Higashihara delivering a topical message on Human Rights Day and the convening of study groups to explore issues related to human rights. Additionally, we are working to improve the response to human rights risks in China and other Asian countries.

- Development of a guidance document for implementing human rights due diligence, in collaboration with the nonprofit organization Shift.
- Holding of study meetings to promote a better understanding of LGBT issues, in collaboration with the nonprofit organization Nijihiro Diversity.
- Meetings with 9 Group companies in the Philippines, 15 Group companies in Indonesia, and 26 Group companies in Thailand to explain Hitachi's human rights initiatives and the potential risks in their countries related to human rights.

Core Policy >>

### 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\*<sup>1</sup> in line with the UN Guiding Principles on Business and Human Rights,\*<sup>2</sup> providing appropriate education to employees, adhering to national 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 a guidance document on human rights due diligence that explains procedures for everyday business practices. Moving forward, we

are committed to continuing activities based on our human rights policies to respect the human rights of stakeholders, not only our employees but also others linked to our operations, products, and services.

\*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 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: 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).

### 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, the CSR Division, 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 deliberations is shared with all employees through company and business site committees, led by company and division executives.

We also conduct regular group training and seminars and use videos to educate employees in each business unit. In order to bring a global perspective to the human rights initiatives of the Hitachi Group as a whole, we incorporate the views of CSR team members from our six operating bases\*1 and also consider regional issues when developing educational materials to raise awareness of human rights issues and consider human rights due diligence.

\*1 Our six operating bases cover the Americas, Europe, Japan, China, India, and Southeast Asia.

#### Hitachi, Ltd. Framework for Promoting Respect for Human Rights



### Human Rights Message from Hitachi, Ltd. President and COO

In 2014 on Human Rights Day, which takes place every year on December 10 to commemorate the adoption of the Universal Declaration of Human Rights, Hitachi President and COO Toshiaki Higashihara issued a human rights message. As well as explaining Hitachi's policies and initiatives related to human rights, the message addressed the importance of respecting human rights of all stakeholders related to our business, including those of our employees, business partners, and customers. This message went via e-mail to all of the roughly 35,000 Hitachi, Ltd. employees and regional chief executives or representatives in each region, as well as managing directors or presidents of regional supervising companies outside of Japan. The message was also sent via the Hitachi Group's intranet and shared with employees of Group companies through their CSR departments.

Key Approaches >>

### Human Rights Due Diligence Initiatives

In our Hitachi Group Human Rights Policy, we pledged to continue to develop structures for human rights due diligence. Toward that end, in fiscal 2013 some business units implemented pilot programs for human rights due diligence to identify key issues that need to be clarified for implementation of the due diligence throughout the Hitachi Group, while also analyzing and evaluating human rights risks in six of the ASEAN countries. Based on the results of these pilot programs, in fiscal 2014 we developed a guidance document for implementing human rights due diligence in collaboration with the nonprofit organization Shift.

Key Approaches >>

### Raising Awareness About Sexual Minorities (LGBT)

As a part of our corporate strategy, we promote diversity and inclusion and pledge to respect and benefit from individuality, viewing differences in sexual orientation as a reflection of that individuality. As human capital becomes more diverse, we are striving for all of our workforce to understand and respect coworkers who are sexual minorities, such as lesbian, gay, bisexual, or transgender (LGBT).

In December 2014, Maki Muraki, the nonprofit organization Nijiuro Diversity's leader,\*<sup>1</sup> gave a presentation to staff in charge of human capital. Furthermore, during Human Rights Week that same month, study meetings were held for personnel in charge of human capital at Hitachi, Ltd.'s business sites, as well as at Group companies in Japan, in order to promote correct understanding of LGBT issues. These meetings highlighted the need to promote a good working environment where LGBT employees do not have to conceal their sexual orientation.

\*<sup>1</sup> "Nijiuro" means "rainbow" in Japanese.

Diversity and Inclusion 

### Soliciting Human Rights Awareness Slogans

Every year Hitachi, Ltd. solicits human rights awareness slogans during Human Rights Week (December 4 to 10 in Japan) as a way of drawing attention to the importance of human rights. In fiscal 2014, a total of 6,089 slogans were gathered (for a participation rate\*<sup>1</sup> of 14.5%). Based on the judging process, six of these slogans were awarded the prize for excellence; there were also 12 other prizewinning slogans and 20 honorable mentions. During Human Rights Week, prizewinners were awarded at their business sites. The top Hitachi slogans were also entered in a competition held by the Industrial Federation for Human Rights, Tokyo, where some of them garnered prizes for excellence and honorable mention in competition against the 527,977 other entries.

\*<sup>1</sup> Percentage of submissions = submissions divided by number of employees.



Key Approaches >>

Key Approaches >>

**Human Rights Initiatives in Asia**

During fiscal 2013, Hitachi Asia Ltd. implemented a human rights due diligence pilot program to clarify potential human rights risks in Southeast Asia by creating a risk map. In fiscal 2014, at the Hitachi-Kai\*<sup>1</sup> meeting attended by local representatives from 9 Philippine companies, 15 Indonesian companies, and 26 Thai companies, an explanation was given of potential human rights risks in each country according to the results of the pilot program and of Hitachi's human rights initiatives. Future plans to deal with such risks were also outlined. Feedback from participants noted that the explanations covered a wide range of issues, from specific examples to hypothetical situations, providing a valuable resource when considering their own business risks. Participants also expressed interest in learning from shared cases where it is difficult for a company to come up with appropriate responses.

\*<sup>1</sup> Hitachi-Kai is an event that brings together representatives of local Hitachi Group companies to deepen awareness about Group business policies and to exchange information about their respective business situations.

Key Approaches >>

**Hitachi's Initiatives at Peking University's Human Rights Seminar**



A scene from the seminar.

In October 2014, Hitachi representatives participated in a seminar\*<sup>1</sup> at Peking University on the topic of corporate responsibility in the era of the UN Guiding Principles on Business and Human Rights. This gathering was aimed at enhancing knowledge and capabilities related to the guiding principles of Chinese corporations and also to raise the level of leadership. At the seminar we introduced Hitachi's human rights initiatives. The event also included presentations by other foreign corporations in China on their own initiatives, as well as reports on human rights issues Chinese companies have faced when expanding overseas and the solutions they have devised to deal with such situations. The scope of the seminar went beyond the perspective of foreign companies or Chinese corporations alone to discuss the state of human rights and to confirm a number of issues, such as the human rights risks particular to conducting business in China and the stance a company should take within the community.

\*<sup>1</sup> The seminar was organized by the Global Compact Network China, Peking University, the Global Business Initiative on Human Rights (a consulting firm that aims to enhance human rights awareness in the era of business globalization), the Institute for Human Rights and Business (an organization that provides a global framework for business and human rights standards), and Tracttwo (a consulting firm specializing in the social responsibility and sustainable development of corporations).

**Kashiwa Reysol's Participation in the Stop Child Labour Campaign**



Fan Appreciation Day for soccer team Kashiwa Reysol.

It is said that today about 168 million children are engaged in child labor worldwide, and some of them are working in football-related industries. In 2014, the professional football team Kashiwa Reysol, operated by Hitachi Kashiwa Reysol, assented to the Stop Child Labour Campaign that was started by the Child Labour Network (CL-Net). Aligned with the International Labour Organization's anti-child-labor promotion, the CL-Net deployed the Red Card Action throughout Japan, under which members of Kashiwa Reysol and their fans stood up against child labor by holding up the campaign's red cards in the stadium in July 2014.

Kashiwa Reysol was the first team in the Japan Professional Football League (J. League) to participate in this global initiative.

## Supply Chain Management

### Hitachi's Approach

**Growth in procurement from supply chains in emerging markets has increased the impact of corporate activities on the economy, environment, and societies of countries and regions worldwide. It has also brought to light a number of problems, including the lack of proper labor legislation in some emerging countries.**

**As with human rights, Hitachi places procurement activities high on the agenda for managing global risks. We respect basic human and labor rights in our procurement activities and ensure consistent activities across the supply chain by sharing guidelines and communicating openly with all of our suppliers—the codrivers of our operations.**

**We conduct CSR monitoring and audits with our suppliers to gauge how well they understand Hitachi's CSR initiatives. We have also created procurement BCPs to help us respond to natural disasters and other threats.**

### Our Actions in Fiscal 2014

Hitachi conducts its procurement activities based on the Hitachi Guidelines for Procurement Activities, which are shared within the Group. We share these and other guidelines with our growing global network of suppliers, whom we ask to carry out CSR Monitoring (self-checks), and take remedial action as needed. In addition, we have procurement business continuity plans (BCPs) in place globally to minimize the impact of natural disasters and other contingencies.

- To ensure that suppliers are fully informed, we distribute the *Hitachi Group Supply Chain CSR Deployment Guidebook* to about 23,000 suppliers.
- We have asked about 200 companies outside Japan to conduct CSR Monitoring (self-checks) and carried out audits of 20 suppliers.
- Group companies in Japan are taking measures to improve procurement BCPs.

Core Policy >>

### 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 as well as all forms of child and forced labor.

To help suppliers, as the codrivers of our operations, to understand Hitachi's supply chain management philosophy, we have distributed the *Hitachi Group Supply Chain CSR Deployment Guidebook*, revised in 2009, which is based on the *Supply Chain CSR Deployment Guidebook* issued by JEITA.\*<sup>1</sup> The guidebook is given out to around 23,000 suppliers of our Group companies.

\*1 JEITA (Japan Electronics and Information Technology Industries Association): An industrial association for electronic technologies, electronic machinery, and information technologies.

### 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 forced and compulsory 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



Frameworks >>

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. We established a CSR/Ecological Procurement Promotion Center within the Hitachi headquarters in fiscal 2011. We have also established the Hitachi Group CSR Green Procurement Committee, which includes committee members from in-house companies and key Group companies. This completes a framework that will enable our CSR supply chain management and green procurement philosophy and initiatives to be shared throughout the Group.

**Number of Hitachi Group suppliers  
(as of December 2014):** **26,000** companies  
(about 60 countries)

Policies and Frameworks >>

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 throughout 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 certifications. There are also requirements for reducing the environmental impact of products supplied to Hitachi, such as conserving resources and energy in production, recycling, managing chemical substances, and fully disclosing related information.

There is a global trend toward tighter regulations on chemical substances. In fiscal 2013, we reviewed our categories for controlled chemical substances in our Green Procurement Guidelines to comply with the stipulations on restricted substances, authorized substances, and SVHCs (substances of very high concern) 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 controlled substances list, and (3) adopting the industry association list. The previous guidelines were revised to version 7.0 and distributed through in-house and Group companies 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<sup>\*1</sup>/AIS<sup>\*2</sup> reporting templates published by the Joint Article Management Promotion Consortium.<sup>\*3</sup> We also encourage them to use information transmission systems and to minimize the amount of labor.

\*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."

## Response to the Conflict Minerals Issue

The *Request to Our Suppliers*, based on the Conflict Minerals Procurement Policy that we released in September 2013, has been put up on our website as a clear statement of our position.

### Hitachi Group Conflict Minerals Procurement Policy

The Hitachi Group is committed to responsible procurement practices to mitigate the risk of sourcing conflict minerals (tantalum, tin, tungsten, and gold) that can directly or indirectly finance armed groups abetting human rights violations in the Democratic Republic of the Congo (DRC) and adjoining countries. The Hitachi Group Procurement Division strives to establish a sustainable supply chain that eliminates procurement of materials and/or parts using conflict minerals. Our efforts are to continue procurement of minerals from responsible sources in the region and are not intended to implement a ban on procurement of minerals from the DRC and adjoining countries.

### Request to Our Suppliers

To do so, it is important to enhance supply chain transparency and to strengthen responsible procurement of materials and parts. Therefore, we expect our suppliers to agree to our Conflict Minerals Procurement Policy and to cooperate with us in our efforts to ensure procurement of conflict-free minerals. In accordance with the Dodd-Frank Act\*<sup>1</sup> and the OECD Guidelines for Multinational Enterprises,\*<sup>2</sup> companies are required to conduct a reasonable country of origin inquiry and to exercise due diligence covering the entire supply chain to determine whether final products include conflict minerals which benefit armed groups.

The Hitachi Group will examine its supply chain through a collaborative industrywide approach by utilizing the tool developed by EICC-GeSI.\*<sup>3</sup> We expect our suppliers to adhere to our Conflict Minerals Procurement Policy and to cooperate with our supply chain investigation.

As improved processes are introduced to eliminate conflict minerals from the supply chain, we will ask our suppliers to comply with such programs once they are developed, proven, and established (i.e., expansion of the Conflict-Free Smelter\*<sup>4</sup> list, which is under implementation by EICC-GeSI). The Hitachi Group will continue to engage in industry efforts to develop methods to build a stable, conflict-mineral-free supply chain.

\*1 Dodd-Frank Act: The Dodd-Frank Wall Street Reform and Consumer Protection Act, signed into federal law by President Barack Obama on July 21, 2010.

\*2 OECD Guidelines for Multinational Enterprises: Government recommendations for multinational corporations operating in or from the Organisation for Economic Co-operation and Development (OECD) countries to adhere to their guidelines.

\*3 EICC-GeSI: Nonprofit organization of members in the information and communications technology (ICT) industry.

\*4 Conflict-Free Smelter: A smelter or refinery that does not handle conflict minerals.

Policies and Frameworks >>

**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.

By fiscal 2012, our 15 international procurement offices had grown to 25. To expand the pool of suppliers in emerging markets, we set up the China Asia Pacific Procurement Headquarters, Hitachi East Asia Ltd., in fiscal 2012 and built a global supply database in fiscal 2013. In fiscal 2014, moreover, we launched a new global procurement scheme using professional functions within the Group (Hitachi High-Technologies Corporation, Hitachi Capital Corporation, and Hitachi Transport System, Ltd.) to reinforce our responsiveness to CSR risks, a growing concern as the supply chain expands globally.

Key Approaches >>

**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. We collect and analyze the results and take any necessary remedial action. Since fiscal 2011, we have expanded the scope to include suppliers in China and the rest of Asia. In fiscal 2014, we asked 200 suppliers outside Japan to conduct CSR Monitoring (self-checks).

**Self-Check Results** ✓

FY	Suppliers in Japan	Suppliers outside Japan	Total
2009	132	0	132
2011	0	102	102
2012	57	41	98
2013	55	45	100
2014	0	200	200
Total	244	388	632

Key Approaches >>

### Implementation of CSR Audits

Since July 2012, we have been auditing suppliers in China and the rest of Asia from among the suppliers providing CSR Monitoring (self-check) results. In fiscal 2014, we conducted CSR audits of 20 suppliers, all of them in China. ✓ For these audits, we engage JACO and DNV,\*1 the BSI,\*2 and Intertek Certification,\*3 experienced CSR auditing companies. 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 EICC-recognized auditor checks suppliers' performances on labor and human rights, health and safety, the environment, and ethics. In fiscal 2014, audit results revealed no major infringements at the 20 companies, but made note of some small areas needing improvement, such as overtime work exceeding stipulated limits (18 companies), failure to conduct periodic inspections of machinery and equipment (16), and insufficient management of hazardous waste (10). We have asked these suppliers to submit improvement action plans and will be working with and advising them until they complete the planned improvements.

- \*1 Japan Auditing and Certification Organization for Environment and Quality (JACO) and Det Norske Veritas (DNV): JACO is a Japanese certification institution that provides a range of auditing services. For audits outside Japan, JACO develops and carries out joint audits with DNV, a third-party certification institution that provides certification and other services. DNV, with 140 years of experience, is known as a risk management leader.
- \*2 British Standards Institution (BSI): An independent organization that offers specialized business services. Founded in 1901 as the Engineering Standards Committee, it is the world's oldest institute for national standards.
- \*3 Intertek Certification: With a presence in 40 countries across the globe, the Intertek Group provides a wide array of certification services in every industrial field.

Key Approaches >>

### 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 key Group and in-house companies in Japan have created procurement business continuity plans (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 2014, Group companies in Japan took the same steps to improve procurement BCPs. The initiative will expand to Group companies outside Japan in fiscal 2015, contributing to the continuation of Hitachi's global operations.

Key Approaches >>

### Increasing Green Procurement of Office Supplies

We are improving our green procurement rate—the ratio of environmentally conscious products procured 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 2014, our green procurement rate reached 89%.

## Diversity and Inclusion

### Hitachi's Approach

**The globalization of markets and labor environments has increased the diversity of our stakeholders, as is evident from aspects like the product and service needs of our customers and the shifting work values of our employees. With strong commitment by senior managers, we are promoting diversity-oriented measures as a management strategy across Hitachi as part of efforts to boost our competitiveness and secure talented employees to respond to this growing stakeholder diversity.**

**We aim to enhance our diversity and inclusion, for instance by introducing key performance indicators (KPIs) to advance women in the workplace, and to create a management system that takes full advantage of the skills of each member of our multifaceted workforce.**

### Our Actions in Fiscal 2014

Entering the third stage of our diversity management roadmap, we have broadened the scope to include gender, age, nationality, disabilities, and lesbian, gay, bisexual, and transgender (LGBT) status. With regard to promoting women in the workforce, we are engaged in direct dialogue with female employees as part of efforts to fulfill our dual KPIs of appointing female executives and increasing the number of female managers in Japan to 1,000. We are also pursuing time- and location-free work as part of efforts to promote work-life management, while also advancing policies to reduce long overtime work hours. The Hitachi Group is working hard to employ people with disabilities, holding special hiring fairs and study meetings for Group companies to share information.

- Support for career advancement of women through such efforts as the Hitachi Group Women Leaders' Meeting and Hitachi Group Career Seminar for Young Women; achievement of a ratio of 3.7% of Hitachi, Ltd.'s management positions filled by women.
- Promotion of time- and location-free work, such as by establishing satellite offices and simplifying work-from-home procedures, as part of efforts to improve work-life management.
- Employment ratio of people with disabilities of 2.03% (as of June 2014), topping Japan's legally mandated ratio.

## Diversity Management

### Diversity Statement

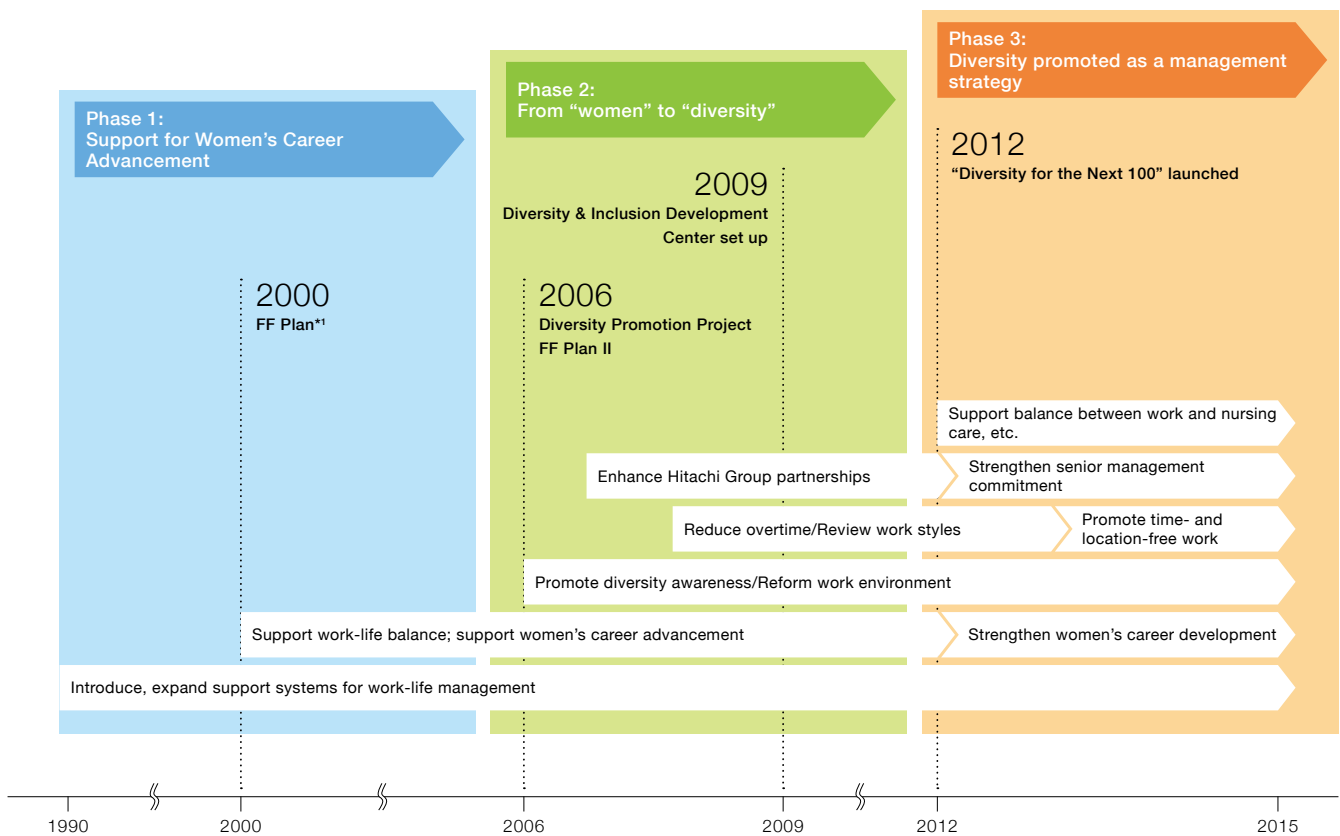
Diversity is the wellspring of our innovation and our growth engine. Hitachi regards personal differences—namely, gender, nationality, work history, age, sexual orientation, and philosophy—as facets of people's individuality. By respecting our employees' individualities and positioning them as an advantage,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

Core Policy >>

## Diversity Management Initiative: "Diversity for the Next 100"

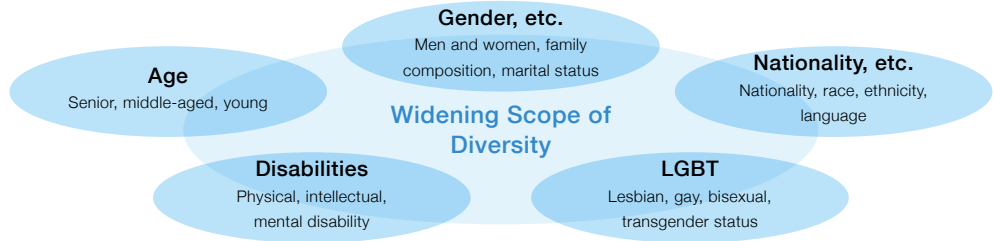
Since the 1990s, we have been at the social forefront, supporting women and other members of our multifaceted workforce. This includes setting up systems to help balance work with child and nursing care. Entering the third stage of our diversity management roadmap, we are embracing diversity as a management 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.

### Roadmap for Developing Diversity Management



\*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.

Expanding the Scope of Diversity Management



Deepening Diversity Management

Frameworks >>

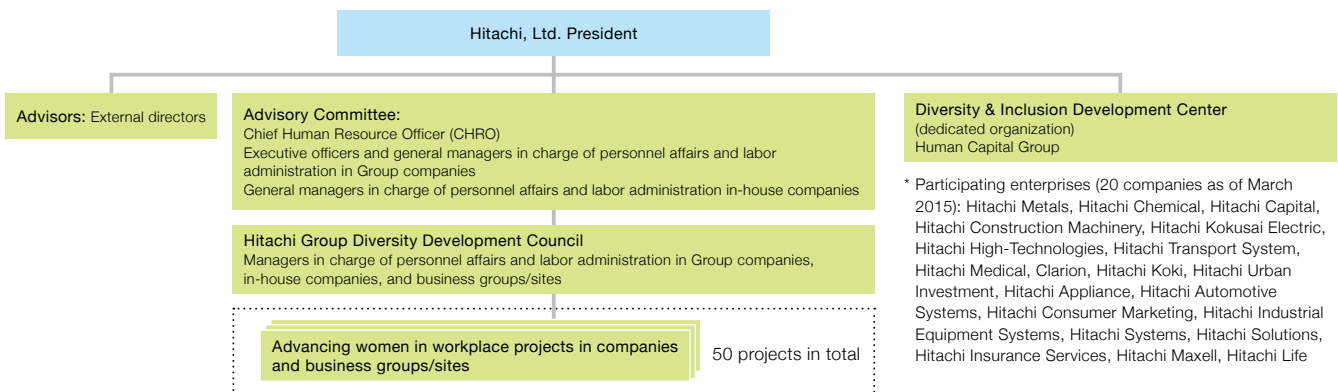
Development Structure of Diversity Management

The Diversity Promotion 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.

Hitachi, Ltd. and 20 Group companies jointly operate the Advisory Committee and the Diversity Development Council to accelerate awareness across Hitachi as a whole. 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 projects to become organizations that develop the role of women in the workplace and that implement and 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



\* Participating enterprises (20 companies as of March 2015): Hitachi Metals, Hitachi Chemical, Hitachi Capital, Hitachi Construction Machinery, Hitachi Kokusai Electric, Hitachi High-Technologies, Hitachi Transport System, Hitachi Medical, Clarion, Hitachi Koki, Hitachi Urban Investment, Hitachi Appliance, Hitachi Automotive Systems, Hitachi Consumer Marketing, Hitachi Industrial Equipment Systems, Hitachi Systems, Hitachi Solutions, Hitachi Insurance Services, Hitachi Maxell, Hitachi Life

Key Approaches >>

**Diversity Workshops and Management Training**

Since fiscal 2010, Hitachi's unique diversity workshops have been using the World Café approach\*1 to bring together employees, including senior executives and young employees, to freely exchange opinions on diversity and work-life management.

It is necessary for the workplace as a whole to develop a better understanding of diversity and put work-life management into practice. Changing the mindsets of managers is a particularly critical task. Our diversity workshop approach gives managers the opportunity to reflect on their management styles and consider how to optimize their employees' potential to achieve top results for the organization as a whole.

Since fiscal 2013, in-house companies and Group companies have been using a workshop handbook created in-house to hold their own workshops, raising the awareness of individuals, and reform the work environment.

\*1 World Café: An approach to discussion bringing participants together in a forum for open, creative talks, allowing them to share situations and cultural insight across organizations or communities to create new knowledge.

**Developing Women's Careers**

Core Policy >>

**KPI of Developing Women's Careers**

Hitachi has created two key performance indicators (KPIs), announced externally in fiscal 2013, to enable as many female employees as possible to take up leadership positions and to participate in management decision making. These KPIs signal our commitment both internally and to the world to further advance women in the workplace and to improve our diversity management.

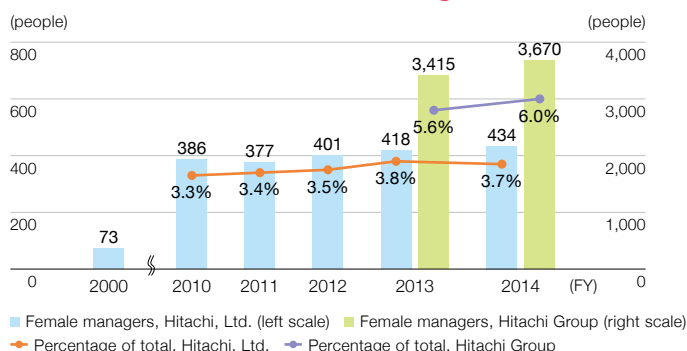
In addition to reinforcing existing programs, we will use the Hitachi Group Women's Career Success Survey to highlight progress with new initiatives and outstanding issues in each business unit and to set numerical targets for each unit, strengthening our management commitment. We will also boost women's individual ambitions and morale through programs such as the Hitachi Group Women Leaders' Meeting, which targets female employees at the general manager level and above. We intend to create an environment where as many women as possible are able to optimize their potential in management positions.

**Goals for Hitachi, Ltd. (KPIs)**

- Appoint female executives by fiscal 2015 by promoting from within. (The CSR and Environmental Strategy Division chief appointed as a corporate officer in April 2015).
- Increase the number of female managers in Japan to 1,000 by fiscal 2020 (2.5 times more than at the end of fiscal 2012).

**Key Indicators**

- Number and Ratio of Female Managers ✓





Key Approaches >>

**Women's Career Success Survey**

Since fiscal 2013, a survey of women's career success has been conducted annually in 30 in-house and Group companies. We use an external institution's survey framework to quantify the status of these companies according to four indexes: female management appointments, work-life balance, gender equality, and advancement of women in the workplace. Group rankings are accompanied by comparisons with other companies in the same industry to appropriately understand the results from the wide range of businesses surveyed. To date the survey has revealed both progress and some outstanding issues. Participating companies use the results to formulate measures, including creating key performance indicators (KPIs) to accelerate female employees' advancement in the workplace.

Key Approaches >>

**Women Leaders' Meeting**



Hitachi Group Women Leaders' Meeting.

The annual Hitachi Group Women Leaders' Meeting provides career enhancement opportunities for female employees at the general manager level and above working at Hitachi Group companies in Japan and serves to strengthen the network of women leaders. The inaugural meeting in fiscal 2013 was attended by 113 women leaders. Speakers included then President Hiroaki Nakanishi, then Chairman Takashi Kawamura, and Yukari Tominaga, the Hitachi Group's first female executive officer. Participants engaged in group discussion on such themes as boosting female employees' own awareness and changing the mindsets of people in the workplace, with each group presenting recommendations to executives.

The fiscal 2014 meeting was held on August 4 and had 125 participants. It kicked off with a speech by President and COO Toshiaki Higashihara on the theme of what it means to be a leader, followed by a discussion with participants on topics including cultivating human capital development and leadership. Input from participants at the 2013 meeting led to the establishment of the Hitachi Group Career Seminar for Young Women. Following presentation of a progress report, there was also an introduction of independent activities led by women leaders.

Key Approaches >>

**Career Seminar for Young Women**



Hitachi Group Career Seminar for Young Women.

Started in fiscal 2014, the Hitachi Group Career Seminar for Young Women advises employees thinking about their own careers early in life, helping them to dispel vague concerns about the future and to maintain a balance between work and life events. The goal is for women themselves to actively carve out their own careers.

The seminar consisted of a lecture about the environment surrounding working women and a panel discussion hosted by senior female employees. It also provided methods for understanding how to think about careers and participants engaged in group discussions focusing on their own medium- to long-term career plans. The majority of the roughly 300 participants at the seminar were in their third or fourth year in career-stream positions.

Key Approaches >>



Participants during group work focusing on future career development.

Key Approaches >>



Participants at the "Bring the Family: On the Frontline of Science and Observing" symposium.

Key Approaches >>



A session during the second WIN summit.

### Building Regional Women's Networks

This initiative looks to support female employees in each region of Japan in directing their careers by providing opportunities beyond the usual context of work to interact with role models and peers at companies across the Hitachi Group.

In fiscal 2014, events were held for employees in Ibaraki Prefecture and the Chubu region that included panel discussions by senior female employees and group work focusing on future career development. Participants also shared thoughts with the executive in charge of human capital.

### Career Events for Science-Oriented Female Students

Hitachi participates in career events for junior and senior high school students designed to inform female students from an early stage of the enjoyment and appeal that work has for women. In fiscal 2013, then Chairman Takashi Kawamura spoke to junior and senior high school students and their parents at a symposium at the University of Tokyo entitled "Bring the Family: On the Frontline of Science and Observing." In his presentation he stressed that women will be a vital force for stimulating the Japanese economy, sharing with women the appeal of working in science. A female scientist from Hitachi also related to the audience different aspects highlighting the interesting nature of her job.

We also host field days at the Hitachi Research Laboratory and the Central Research Laboratory with the goal of persuading female high school students of the advantages of working in science. This is accomplished by giving them the opportunity to observe research work firsthand and to take part in roundtable meetings with Hitachi employees who majored in science.

### European Initiatives on Women in the Workplace

As part of efforts to foster diversity and inclusion, Hitachi Group companies in Europe have begun two key initiatives aimed at providing career development support to women. In 2013, the Women's Interactive Network (WIN) was launched through the efforts of different Group companies. "Webinars" presenting the findings of Project 28-40, a survey of the working lives of women, were also developed to further raise awareness and understanding toward overcoming unconscious biases.

In November 2014, many employees from European Group companies attended the second WIN summit. Held under the theme of emboldening women, the summit featured a broad program including a session where Nicky Moffat, the highest ranked woman in the British army, gave participants career advice. During the event, Diversity & Inclusion Development Center head Naohiko Tamiya addressed the importance of cooperation among all Group companies in promoting diversity and inclusion and Chief Executive for EMEA/CIS Klaus Dieter Rennert stressed how greater diversity is essential to boosting Hitachi's competitiveness.

A pilot mentoring program involving six groups from seven Group companies was also initiated. Each group brought together women in managerial positions or involved in corresponding duties to discuss over a six-month period topics and issues related to career development. The results of the program are to be used to advance and broaden diversity and inclusion.

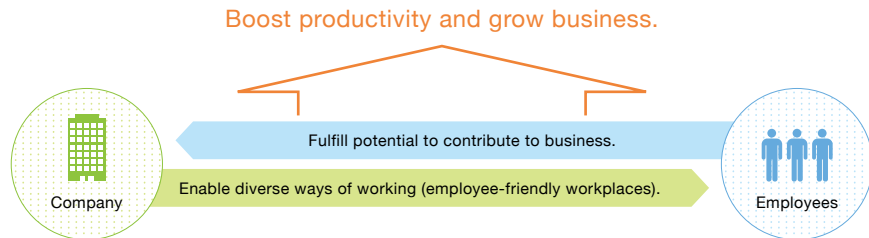
## Work-Life Management

Core Policy >>

### Hitachi's Work-Life Management Approach

Our diversity and inclusion management initiatives are designed to enable all employees to reach their full potential, as well as to enhance our organizational capabilities and to create synergies that will boost productivity and grow our business. This requires building a work environment that embraces human resource diversity and promotes work style 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.

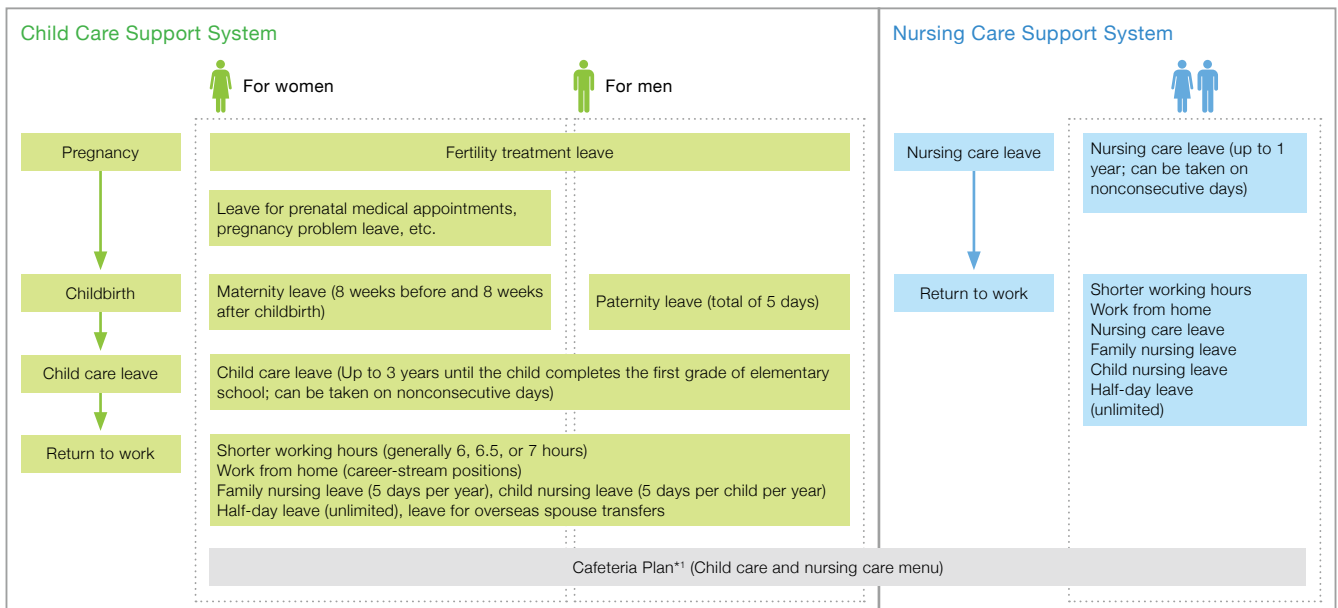


Key Approaches >>

### 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.

#### Work-Life Management Support System (Example of Hitachi, Ltd.)



\*1 Flextime and discretionary labor systems are also available. The Cafeteria Plan is a system in which employees can select the support that they need, when they need it, according to their "Cafeteria Points."

Key Approaches >>



Excursion (sweet potato digging).



Christmas party.

In-House Child care Centers

Genki Club

In April 2013, the Genki Club daycare center celebrated its tenth anniversary. This in-house facility was set up to help Hitachi's employees living and working around the Totsuka area in Yokohama to balance work and child care. The center opened with 14 children; as of March 2015 this has grown to over 70, with the center becoming one of the few large in-house daycare facilities in Japan. The Hitachi Workers Union Soft Branch operates the center along with Hitachi, Ltd., Group companies, labor unions, and other organizations that work together to provide support.

Genki Club

Established	April 2003
Location	292 Yoshida-cho, Totsuka-ku, Yokohama-shi, Kanagawa, Japan (Yokohama Office, Hitachi, Ltd.)
Capacity	Approximately 70 children
Ages eligible	Infants aged several months to 6 years (children who have not yet reached elementary school age)
Operating hours	7:30-20:00



"Genki Club" Logo

Sakura Hiroba (Hitachi Chemical Group)

Hitachi Chemical Co., Ltd., has a range of programs that ensure an employee-friendly work environment. These include a program launched in fiscal 2006, and renamed the Diversity Development Project in fiscal 2008, that encourages women in the workplace, as well as the establishment in fiscal 2007 of a special section aimed at developing diversity. In addition, Hitachi Chemical has also created a nearby in-house nursery to help employees balance work and child rearing. Featuring a large play area with playground equipment, the nursery's flexible child care options are designed to meet the full range of employee needs, including monthly care and drop-ins.

Sakura Hiroba (Hitachi Chemical Group)

Established	April 2008
Location	2-27-22 Higashi-cho, Hitachi-shi, Ibaraki, Japan (near Yamazaki Division, Hitachi Chemical)
Capacity	20 children (can enroll a maximum of 30)
Ages eligible	Infants aged several months to children up to 6 years old who have not yet entered elementary school (children of Hitachi Chemical Group employees who commute to the city of Hitachi)
Operating hours	7:30-20:00

Key Approaches >>



A Pre-maternity Leave and Return-to-Work Support Seminar.

Key Approaches >>

Key Approaches >>

### Initiation of Pre-maternity Leave and Return-to-Work Support Seminars

At Hitachi, with more employees balancing work and child care, since fiscal 2012 we have been running Pre-maternity Leave and Return-to-Work Support Seminars approximately three times every six months. These address such issues as putting careers on hold for childbirth and child care and concerns about balancing work with child care. Employees attend seminars with their managers so that both can share attitudes and approaches when returning to work.

The goal is to ensure a woman's smooth return to work as well as understanding and support from her managers and from colleagues. Participation in the seminars is growing yearly, with around 350 people from various companies in the Hitachi Group taking part in fiscal 2014.

### Boosting Productivity and Efficiency by Reducing Working Hours

Hitachi is revising working styles, seeking to increase productivity through reduction of working hours. Efforts include presenting reports on actual situations of long working hours and periodic follow-ups at meetings for senior managers of HR, establishing days where no overtime will be conducted, and sharing and discussing examples of positive work styles. In addition, each site has its own unique approach to encourage employees to inform their colleagues of the time to leave the office, post calendars to plan their vacations, take a paid holiday each month, and secure their "Thinking Time" during which they concentrate on their duties.

IT support has also arranged for the times PCs are turned on and off to be recorded, so that both managers and employees can check their working hours in real time. Communication is being enhanced to improve work efficiency, such as by helping employees establish priority for their various tasks. The introduction of secure PCs and techniques for effectively using travel time have also allowed employees to fully utilize time they are at work but away from their desks. In addition, Hitachi, Ltd. and labor unions are collaborating to achieve 100% use of Planned Annual Paid Vacation and Special Incentive Leave.

### Time- and Location-Free Work

Hitachi has systems and processes that allow employees to choose flexible and diverse work styles unrestricted by time or location. This allows our diverse staff to produce results more efficiently. In addition to discretionary work, flextime, and work from home, these initiatives include satellite offices, simplified work-from-home procedures and applications, distribution of mobile tools such as smartphones, and a time- and location-free work page on our intranet providing information on diverse work styles.

Key Approaches >>



The WLB-up! Month mascot.

Work-Life Balance-up! Month

Since fiscal 2010, we have held a Group-wide Work-Life Balance-up! (WLB-up!) Month each November to inform employees of our work-life balance management approach. The goal of the program is to improve the quality of employees' work and personal lives by boosting awareness of work-life management, developing a better review of work styles, and promoting understanding of the programs and tools needed for work-life management.

Group-wide activities include messages from top management, work style review declarations in workplaces from managers, surveys of work-life management, a weekly e-mail newsletter sent to all employees, and WLB-up! Month posters. Individual workplaces also operate their own programs, including WLB-up! meetings, the active use of video and web conferencing to share information, and campaigns encouraging employees to utilize annual leave.

Employing People with Disabilities

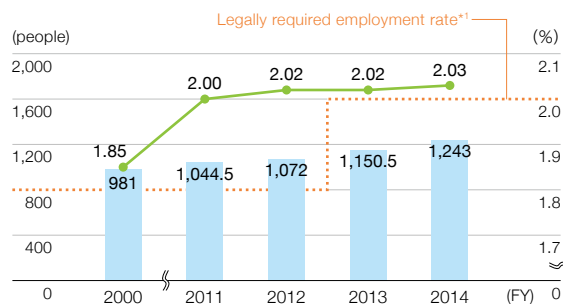
Core Policy >>

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 special hiring fairs and study meetings for Group companies to share information. As a result, as of June 2014 the employment ratio of people with disabilities was 2.03% at Hitachi, Ltd. and 2.07% for the entire Group in Japan. Both of these figures topped Japan's legally required employment rate of 2.0%. 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.) ✓



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

\*1 Up to fiscal 2012, the legally required employment rate was 1.8%.  
 Notes: Data compiled in June of each year. Employees with severe disabilities are counted twice.

Key Approaches >>



Employees of special subsidiary Hitachi You and I Co., Ltd. operate shredders in a Hitachi, Ltd. mailroom.



Employees working at the Ibaraki Sheltered Workshop.

Key Approaches >>

WEB Promoting the Employment of People with Mental Disabilities (Ministry of Health, Labor, and Welfare) (Japanese only)

Special Subsidiary Initiative

As of June 2014, the five special subsidiaries\*<sup>1</sup> within the Hitachi Group employ 254 people with disabilities. These employees work at the parent company and affiliated companies performing such tasks as collecting and delivering mail, cleaning, and providing clerical assistance, as well as staffing cafeterias and tearooms.

\*<sup>1</sup> If an enterprise forms a subsidiary that gives special consideration to employing people with disabilities in order to promote and stabilize the employment of these people, and where certain requirements are met, people employed at the subsidiary are recognized as being employed at the parent company and can be included in calculations of the parent company's employment rate.

Hitachi Group Special Subsidiaries (as of June 2014) ✓

Special subsidiary	Parent company	No. of people with disabilities	Main tasks
Hitachi You and I Co., Ltd.	Hitachi, Ltd.	119	Cleaning, mail, shredding, cafeteria work, clerical assistance
Hallow	Hitachi Metals, Ltd.	45	Machining, checking, aluminum wheel grinding, mail
Hitachi High-Tech Support Corporation	Hitachi High-Technologies Corporation	28	Mail collection and delivery, business card creation, travel expense calculations, bookbinding
Builcare Staff Co., Ltd.	Hitachi Building Systems Co., Ltd.	57	Digitizing of documents, office work assistance, cleaning, shredding
UJKC Social Enterprise Co., Ltd.	Hitachi Automotive Systems Steering, Ltd.	5	Auto parts assembly

To create jobs for people with disabilities in Hitachi's home of Ibaraki Prefecture, local plants and offices as well as Group companies outsource work for around 80 people to the Ibaraki Sheltered Workshop.\*<sup>2</sup>

\*<sup>2</sup> Ibaraki Sheltered Workshop was established in 1978 under an agreement with Ibaraki Prefecture, the social welfare corporation Jiritsuhoushikai, and Hitachi, Ltd. to provide work, guidance, and health supervision for the physically disabled who are able to work but are prevented from working at other companies because of limited onsite facilities or structures or long commutes.

Promoting Employment and Understanding for People with Mental Disabilities

In 2009, Hitachi, Ltd. was selected to participate in a model program of the Ministry of Health, Labor, and Welfare aimed at promoting employment for people with mental disabilities. Since that time, we have applied the knowledge and know-how gained in this program toward boosting such employment across the entire Hitachi Group in Japan. As of June 2014, there are 274 people with mental disabilities employed at Group companies.

Hitachi, Ltd. has worked to bring attention to and promote understanding of these employees by holding workshops providing information on ways to support them. At the same time, we have provided employees with training necessary to help them manage their disabilities and keep them working. These Hitachi and Group company initiatives have received widespread attention through prefectural labor bureau seminars and annual meetings of the Japan Psychiatric Medical Conference.

We will continue to develop model examples of employing people with mental disabilities and will communicate this information to society.

## Employee Health, Safety, and Welfare

### Hitachi's Approach

**Employment trends and work patterns are shifting as the Japanese population continues to age and urbanize and as companies rapidly globalize, affecting the overall health and safety of employees in new and complex ways. Hitachi holds the health and safety of employees as a top priority. We consider it our duty to give our workers an environment where they can go about their duties safely and with peace of mind. We take a Group-wide approach to preventing accidents that includes sharing the Hitachi Group Health and Safety Policy globally, using a system that tracks information on health and safety management from all Group companies in Japan, and establishing key performance indicators (KPIs) for occupational accident rates.**

### Our Actions in Fiscal 2014

Ensuring the health and safety of all employees is a basic principle shared by all Hitachi Group companies around the world. We are engaged in improving the level of health and safety through Group-wide initiatives that include accurate tracking of safety conditions, using standardized methods for reporting and collecting information on accidents, as well as implementation of safety standards and other policies. In Japan, we are introducing measures to comply with new laws and regulations.

In response to the diverse needs of employees, we continue to engage in such welfare initiatives as the “cafeteria plan” program and the defined contribution and defined benefits pension plans.

- Occupational accident rate (fatality or work-time loss of more than one day) across the Hitachi Group in Japan of 0.27.\*1
- Participation by around 120 executive officers and division chiefs in charge of safety at Hitachi Group companies in Japan in the Hitachi Group Special Safety Conference headed by President and COO Toshiaki Higashihara, as part of efforts to prevent work-related accidents.

\*1 Occupational accident rate = (total lost-time injury cases ÷ total working hours) × 1 million.

### Occupational Health and Safety

Core Policy >>

### 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 Hitachi Group companies all 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 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

Frameworks >>

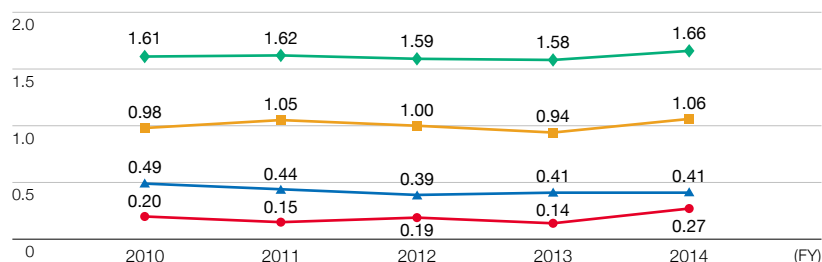
## Framework for Promoting Health and Safety

Hitachi is promoting a range of Group-wide occupational health and safety activities. These include preventing workplace accidents by setting and applying minimum safety standards to be observed by Group manufacturers around the globe and by taking into consideration the specific conditions at each company. We respond quickly when an accident occurs and use incidents to make improvements and boost the level of health and safety management.

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. We are also working to comply with new regulatory requirements regarding the Stress Check System and chemical risk assessment system in Japan, which are slated to go into effect in fiscal 2015 and 2016, respectively.

### Key Indicators

#### Occupational Accident Rates



Notes: Occupational accidents are defined as those involving fatality or work-time loss of more than one day. Hitachi Group figures are for 90 Group companies in Japan, including Hitachi, Ltd. (to 2011); for 175 Group companies in Japan, including Hitachi, Ltd. (2012); for 195 Group companies in Japan, including Hitachi, Ltd. (2013); and for 251 Group companies in Japan, including Hitachi, Ltd. (2014).

In response to an increase in work-related accidents in fiscal 2014, Hitachi President and COO Toshiaki Higashihara in February 2015 led the Hitachi Group Special Safety Conference, which included around 120 executive officers and division chiefs in charge of safety at Hitachi Group companies in Japan. During the meeting participants considered ways to bolster safety and preventive measures, such as by introducing new initiatives for fiscal 2015, examining Hitachi Group policies, and providing examples of successful efforts to date. These were then used by Group companies to establish plans for preventing workplace accidents.

#### Global Group Safety Figures for Fiscal 2014

Area	Occurrence rate*1
Outside Japan	2.51
In Japan	0.53
Global	1.23

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

Core Policy >>

#### Cooperating to Improve Health and Safety

Hitachi is dedicated to improving health and safety levels through employee-management cooperation. This includes signing a collective agreement with the Hitachi Workers Union on the promotion of, among other things, health and safety mechanisms, a health and safety commission, education and training programs, and health checks for employees.

Key Approaches >>

#### 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 Research Presentation Meeting for Hitachi health and safety officers. The 58th gathering, held in November 2014, attracted around 150 participants, who shared newfound knowledge from case studies and heard special lectures from outside experts on ways to improve health and safety activities at companies. Around 70 occupational healthcare workers, including physicians and nurses, participated in the 14th Hitachi Group Industrial Health Conference in January 2015. Participants presented research results, shared information on methods for improving occupational health programs at business sites, and discussed training approaches for relevant healthcare workers.

Key Approaches >>

### 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. One such company is the Information and Telecommunication System Company of the Hitachi Telecommunications and Network Systems Division. The company, based in Totsuka Ward, Yokohama City, has as of January 2014 extended its record of accident-free work-time hours to 150 million. By not recording a single work-time accident for approximately 37 years, it stands as the Group's top health and safety performer.

Key Approaches >>

### Fatigue and Stress Checkup System



The Fatigue and Stress Checkup System.

Hitachi Systems, Ltd. has initiated efforts to support employees returning to work after mental illness by using the Fatigue and Stress Checkup System. This system makes it easier for employees to track their fatigue levels, thus allowing better self-care for their mental and physical health. This system was developed through an industry-university partnership in fiscal 2012 to care for the mental health of local residents and local government employees affected by the Great East Japan Earthquake. This cloud-based system capitalizes on research into fatigue technologies and utilizes an instrument that measures autonomic nervous system responses to detect the early signs of fatigue and stress.

## Employee Welfare

Policies and Frameworks >>

### Improving Employee Welfare

Hitachi, Ltd. has designed programs to support employees' self-reliance and independence. These 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, and consolation payments. In fiscal 2000, a new "cafeteria plan" program was introduced, enabling employees to select the benefits they receive.

Under the initiative employees are able to tailor a plan to their individual lifestyles and needs by choosing from a list of options, such as skills development, child care, nursing care, health promotion, and donations. Employees use "cafeteria points" to select the type of support they need when they need it.

The Hitachi Group has fundamentally revamped its retirement and pension plans to reflect the diversification of postretirement lifestyles, changes in the employment system, and revisions to the legal system. Defined contribution and defined benefit pension plans have been introduced across the Group to provide support for employees' diverse life-planning needs. 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. With the defined benefit pension plan, we increased the number of benefit options in response to employees' varied needs.

## Global Human Capital Development

### Hitachi's Approach

**As the role of corporations expands with respect to global social issues like the environment, poverty, and human rights, Hitachi seeks to address the needs and values of its diverse array of stakeholders, including central and local governmental bodies, local communities, and customers, with the goal of developing the Social Innovation Business around the globe.**

**In order to secure the human resources needed to deal with those issues, we are seeking to globalize its human capital by recruiting and training employees from a variety of countries, while also building up an array of facilities around the world so that our diverse employees can demonstrate their full potential and continually develop themselves.**

### Our Actions in Fiscal 2014

Hitachi has built the Global Human Capital Database to enable visualization of worldwide human capital throughout the Group, while also introducing a global grading system as a common platform for Group-wide job evaluations. We have also introduced and expanded our performance management system to continually improve and develop both our business and the individual skills of our employees. On top of this, we have introduced common global hiring systems as a way to secure talented personnel, boost efficiency, and reduce hiring costs.

- In fiscal 2015, we hired around 60 foreign nationals who had graduated from universities inside and outside Japan, as well as around 20 Japanese nationals who earned degrees at universities outside Japan.
- A process was implemented to send results from the Hitachi Insights survey of global employees directly to managers.
- In fiscal 2013, employees in Hitachi, Ltd. and 20 Group companies in Japan received an average of 37.9 hours of training per person, and 85,300 yen per person was invested for education.

Core Policy >>

### Advancing Global Human Capital

Our Group-wide global human capital management strategy optimizes both human resources and organizational performance in pursuit of Hitachi's goal of becoming a major global player.

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 entire 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 operational business goals and individual skills of both sides, with the aim of mutual sustained improvement and growth. This system will be expanded to include more companies. With an eye to supporting the advancement of employees as our global operations expand, we are introducing common global hiring systems to secure talented personnel, boost efficiency, and reduce hiring costs.

## Global Recruiting and Globalizing Human Capital

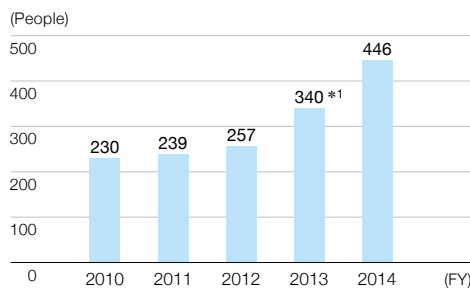
As a means of opening up global markets, we have been accelerating the globalization of human capital in Japan through three initiatives: (1) recruiting personnel in Japan who can promote global operations, (2) providing more young Japanese employees with experience outside Japan, and (3) comprehensively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

We are committed to securing the right personnel for business globalization, and toward that end we are opening up employment opportunities and strengthening management diversity. 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 for employing global business personnel is to attract people who are eager to build their foreign language skills and relish the challenge of working in different cultures, social settings, and work environments.

We also recruit new employees to ensure diversity in and outside Japan. In fiscal 2015, we recruited around 60 non-Japanese from universities in Japan and elsewhere, and around 20 Japanese graduates from universities outside Japan.

### Key Indicators

#### • Non-Japanese Employees (Hitachi, Ltd.) ✓



\*1 The *Hitachi Group Sustainability Report 2014* (p. 155) listed the fiscal 2013 number of non-Japanese employees as 244, rather than the correct number, 340.

### Providing Young Employees with Global Experience

Hitachi maintains broad programs to systematically cultivate and secure people who can succeed in global business. To develop the careers of people who can understand and adapt to local cultures and lifestyles, we have offered a program for younger employees to live outside Japan. We have sent around 3,700 young Group employees over the four years beginning with fiscal 2011, allowing them to take part in more than 80 programs, including understanding other cultures, language studies, local field studies, and internships, as well as opportunities to work with local people to resolve social issues. We plan to continue these programs in fiscal 2015.

### Globalizing Management Training

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

We launched the Global Advanced Program for Leadership Development (GAP-L) in 2012 to develop leaders for our Asian operations. In fiscal 2013, 23 participants from around the world took part in the program in Singapore. Another 25 people participated in the Global Leadership Acceleration Program for Key Positions (GAP-K), which targets management candidates, in Delhi, India, and other locations. These programs focus on global business expansion by creating customer value and the requisite leadership skills, moving us closer to our goal of becoming a major global player. In the GAP-K program in particular, participants learn and discuss strategies for global business expansion with a special emphasis on emerging markets.

In fiscal 2014, the GAP-L program had 21 participants, while 22 took part in GAP-K. We also initiated standard training courses for general managers and new managers for roughly 2,000 people across our global Group operations. As global human capital management evolves to realize Hitachi's management strategies, we will globalize our management development programs and continue to cultivate leaders to guide us toward further growth.

Core Policy >>

### 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 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 needed to think and act for themselves, we also are providing support to create a framework for the organization to benefit from 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.

Core Policy >>

### Future Initiatives for Career Development

In pursuit of becoming a major global player, we are prioritizing individual and organizational performance. 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 understanding between employees and their organizations based on programs encouraging individual employees to take greater control of developing their own careers. In these ways, we provide the resources and tools that enable a wide range of people to work together with enthusiasm.

Key Approaches >>

### Conducting a Global Employee Survey

In 2013, we conducted our first global employee survey, Hitachi Insights, as a way of measuring employee engagement.\*<sup>1</sup> In September 2014, the survey was administered for the second time. Around 190,000 employees worldwide were sent the survey in one of 13 different languages, and roughly 160,000 responses were received.

Overall, among the 13 categories, Hitachi scored well in “pride in your company” and “your supervisor’s management,” suggesting that employees are proud of Hitachi and its drive to become a major global player underpinned by sustainable growth. A poor score for “resources and support” indicates that we can do better on the level of staffing as well as information and resource tools.

Compared to the first survey, there were improvements in all of the categories, which seems to demonstrate that forward-looking changes were made in each organization within Hitachi based on studying the results of the survey and implementing improvements. Looking forward, we intend to continue making improvements while thoroughly adhering to the PDCA (plan, do, check, act) cycle.

In fiscal 2014, we also introduced a process whereby the survey results are directly sent to section and department heads. These managers can use the results to ascertain the situations for their respective teams and to improve engagement with the team through communication with the members. The range of employees who will receive this direct communication is being expanded in 2015, and we will also be providing assistance to the section and department heads for actions they wish to take based on the survey output, with an eye to further raising the level of engagement throughout Hitachi.

\*<sup>1</sup> 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.

Key Approaches >>

### Career Development in the Workplace

Because we regard the workplace as the center of career development, our career development support emphasizes growth in daily work. Hitachi’s Global Performance Management (GPM) uses performance planning, with employees and their supervisors discussing and agreeing on short-term work goals. We also use career consultations for gaining mutual understanding of medium- to long-term career plans, as well as training and skills development to boost individual employees’ engagement and motivation and to advance their careers in the workplace. Repeating the GPM cycle improves individual performance and further increases motivation and creativity. This in turn spurs individual growth and improves organizational results.

Hitachi administers the Career Counseling Center to provide work-related advice to employees as part of our career development support. Trained counselors at the center engage in dialogue to help employees proactively address their own concerns related to their careers and relations with colleagues. Some of those concerns include the desire to find a career path that suits their aptitudes and values or to find a way to better balance work with their private lives. The counselors at the center are also required to regularly participate in a training program following a US-certified career counseling curriculum in order to raise the quality of their counseling.

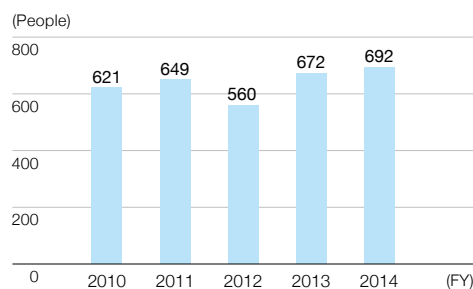
## Promoting Career Development Workshops

Together with workplace career development, we provide direct support for individual career development through education and workshops that encourage employee awareness of their “internal careers”—in other words, their reasons for working and the significance they place on it. These programs are geared to individuals’ career development and stages, covering everyone from young employees to more senior workers. The Hitachi Career Development Workshop (H-CDW), launched in fiscal 2002 as an initiative across Group companies in Japan, is a key program that targets middle-aged employees who have work experience and who play a central role in the workplace.

In fiscal 2014, Hitachi began recommending that all employees promoted to supervisory positions attend the H-CDW, with the aim of giving them the opportunity to participate in the workshop at an earlier stage in their careers. 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.

Hitachi is providing career development support to middle-aged employees through Life Plan Training, made available to employees 50 years or older (or managerial employees from the age of 45), as well as the Life Plan Briefing for employees who have reached the age of around 58. Life Plan Training is aimed at encouraging employees to think for themselves about how they can take actions and make preparations for their career and life plans, rather than waiting until they reach retirement age. Toward that end, the training provides various knowledge that is useful when considering styles of working and living, as well as information on company support systems. For the Life Plan Briefing, prior to selecting their “life plan” regarding working styles after retiring at age 60, participants receive an explanation about an array of working styles and life environments for the elderly, while also taking part in workshops to consider those future working styles.

### ● Participants in Career Development Workshops (Hitachi Group in Japan)





## Quality Assurance Activities

### Hitachi's Approach

**Hitachi understands that even a single product defect could pose a significant business risk, given society's increasing awareness of safety and security issues and the growing global reach of businesses, and reflects this in company management. The entire Hitachi Group contributes to quality assurance as part of the tradition of *monozukuri* craftsmanship from the customer's perspective. These contributions cover all processes from research and development through to after-sales service. Moreover, we promote activities to improve quality assurance centered in the areas of organization and management, technologies, and human resources. Regarding the latter in particular, we provide training for engineers in Japan and work to develop human capital outside Japan.**

### Our Actions in Fiscal 2014

In fiscal 2014, under the Hitachi Group QF (Quality First) Innovation Movement launched in fiscal 2010, we continued our initiatives to ensure product safety, compliance with laws and regulations, human resource development, and quality improvements. To develop the quality assurance skills of employees around the globe, in particular, we are increasing training opportunities in China and the rest of Asia, as well as other countries and regions.

- More than 70,000 Hitachi engineers went through an e-learning program that drew on the results of analyses of past product accidents.
- We provide reliability training courses in China and Thailand.

### Quality Assurance Activities

Based on the Corporate Credo of contributing to society through the development of superior, original technology and products, Hitachi has engaged in *monozukuri* craftsmanship with quality and reliability as top priorities since its founding. To advance product reliability, our quality assurance activities cover all processes from product planning and development through to design, manufacturing, delivery, and after-sales service. Moreover, we are undertaking activities across the Group to improve quality assurance centered in the areas of organization and management, technologies, and human resources.

Under the 2015 Mid-term Management Plan, Hitachi is currently working to secure a leading market position as a major global player. With higher quality standards than ever, we are enhancing our products from the customer's perspective and improving quality management processes. Since fiscal 2010, we have promoted the Hitachi Group QF (Quality First) Innovation Movement to ensure product safety, compliance with laws and regulations, human resource development, and quality improvements. We also concentrate on quality improvements in China and the rest of Asia, as well as other countries and regions.

### Ochibo Hiroi: Identifying Root Causes of Product Accidents and Preventing Recurrence

Meaning “gleaning” in English, *ochibo hiroi* identifies the root causes of product accidents and recurrence prevention measures. The quality assurance executive officer works with related divisions to delve deeply into the technical causes as well as the procedures and the organizational and psychological factors that led to the accident, thereby identifying root causes and developing measures to prevent recurrence.

### Intensive Risk Assessment

Hitachi is committed to quality and reliability, delivering safe products and services by combining expertise and technologies from such varied areas as planning, research, design, manufacturing, quality assurance, and maintenance. The safety of our customers' life, health, and property are the top priorities in product development. Therefore, we verify safety at every step, from development and production to sales, and conduct risk assessments from a wide perspective in collaboration with related manufacturing plants and research laboratories.

### Complying with Technical Laws

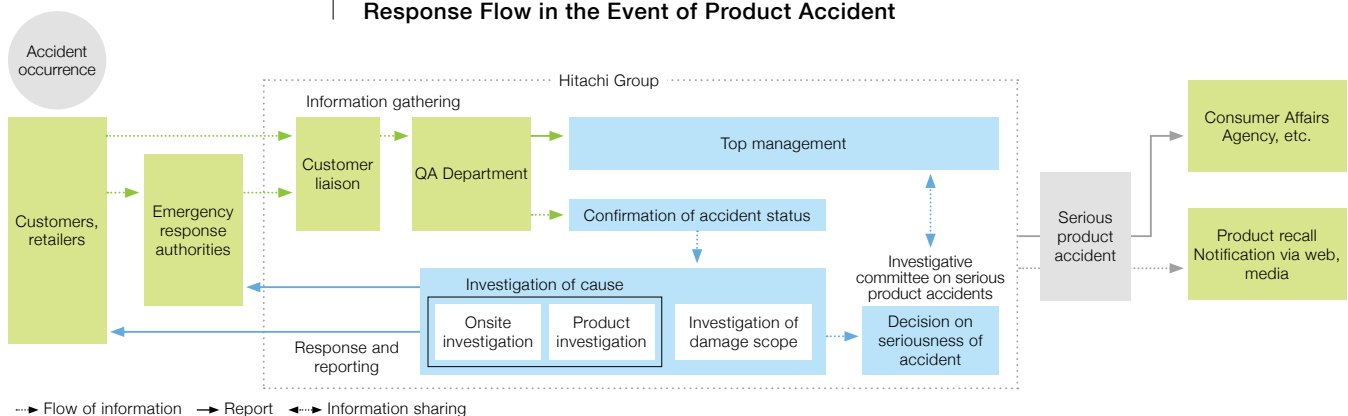
To supply our customers with products that they can use with confidence, we comply with all product safety and technical laws, including those covering environmental consciousness and safety labels. We distribute information on product regulations worldwide, along with amendment trends and enforcement dates, among Hitachi Group companies. We have also created compliance guidelines to share within the entire Group. The guidelines focus, among other things, on clarifying product-specific laws (product-specific laws map); on regulatory compliance activities and continuous improvement of processes, based on our compliance management system, designed to satisfy the 2008 ISO 9001 standards; and on compliance education, as well as raising compliance awareness.

Policies and Frameworks >>

## Handling Product Accidents

If there is a product accident, the division responsible acts swiftly to resolve the problem from the customer's perspective, coordinating with other Hitachi business units as needed. For an especially serious accident, we report to government agencies, as we are legally required to do, and publish the incident information on our website and through other channels. At the same time, we quickly submit a status report to top management, ensuring fast and appropriate remedial action not just at the company directly involved but all companies across the Group.

### Response Flow in the Event of Product Accident



Key Approaches >>

### Quality and Reliability Education

Our training programs for all technical and skill levels at divisions working in design and quality assurance cover reliability (basic and advanced) and product safety. In fiscal 2011, we reinforced our *monozukuri* practices by beginning an e-learning program for the more than 120,000 Hitachi engineers around the world. Since fiscal 2012, we have operated another e-learning program that draws on the results of analyses of past product accidents to identify weaknesses that our engineers must be able to ascertain, understand, and overcome in their daily work. Over 70,000 engineers have gone through the program.

Quality assurance (QA) training centers at our manufacturing sites help to increase production, quality assurance, and maintenance skills through their own specialized technical courses.

Key Approaches >>

### QA Systems in China and Throughout Asia

As production volume has been increasing in China and other Asian nations, we are reinforcing systems and training to improve product quality from these locations. For example, we host conferences for QA managers in China and Thailand to improve quality awareness and to share information and best practices.

To develop employees' QA skills and to improve their quality awareness and inspection techniques, we provide reliability training courses at three levels in Beijing, Shanghai, and Guangzhou in China and in Bangkok, Thailand: the Basic Reliability Course,<sup>\*1</sup> Intermediate Reliability Course,<sup>\*2</sup> and Advanced Reliability Course. In the Advanced Reliability Course, managers hold group discussions on past product accidents to identify the root causes, including the process-related, organizational, and psychological factors. The goals are to boost problem identification and problem-solving skills.

\*1 Basic Reliability Course: Deepens understanding of such basic issues as Hitachi's *monozukuri* craftsmanship, quality management, and labor safety.

\*2 Intermediate Reliability Course: Improves understanding of more practical issues in, for example, Hitachi *monozukuri* craftsmanship, ISO 9001 certification, defect elimination, design for reliability, and purchasing and vendor management.

Key Approaches >>

### Ensuring Home Appliance Safety

We are reducing consumer appliance accidents to near zero levels in line with Hitachi's Customer Satisfaction (CS) Management Guidelines, which set avoidance of all product accidents as the baseline. For example, since fiscal 1987 we have been testing worst-case scenarios, such as deliberately setting a fire inside a product to confirm that the fire will not spread outside it. Since fiscal 2006, we have also been conducting product safety risk assessments at the development stage, creating "accidents" that might be caused by misuse.

Of the fires in electrical products that occurred in Japan during fiscal 2014, room air conditioner accidents (including outside units) were the most common, accounting for 64 incidents.<sup>\*1</sup> No Hitachi air conditioners were involved in these accidents, reflecting the strength of the Hitachi Group QF Innovation Movement. 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.

\*1 According to the Ministry of Economy, Trade, and Industry's "Fiscal 2013 Report on Status of Product Safety Policy Initiatives" (June 30, 2014).

## Customer Satisfaction

### Hitachi's Approach

**For the company to grow sustainably, it is vital to respond to diversifying customer needs and values, as well as to contribute to a society where everyone—including the young and old, as well as those with disabilities—can live conveniently and comfortably. As a company that offers a broad range of products and services from home appliances to social infrastructure, Hitachi believes that it is important to engage in corporate activities with the people at large in mind, not just the corporate customers and individual consumers with whom it directly conducts business.**

**To improve customer satisfaction (CS), we have created Customer Satisfaction Management Guidelines. We share customers' voices obtained through direct dialogue across the whole Group, reflecting them in our management, product, and solution strategies. Furthermore, we incorporate the views of product users and experts into our universal design (UD) approach.**

### Our Actions in Fiscal 2014

Hitachi makes ongoing efforts across the Group to boost CS by building closer relations with customers, primarily through staff in the sales and marketing division. In fiscal 2014, we held the Hitachi Innovation Forum and various other lectures and seminars as opportunities for direct dialogue with customers. Our website provides comprehensive customer support, and we capitalize on the feedback we receive to improve our business operations, products, and services. We have also continued to promote UD with the end goal of a society where everyone can live conveniently and comfortably.

- In fiscal 2014, 85 Hitachi Group company employees took the Web Inquiry Responsiveness Improvement Course to learn how to better handle inquiries, bringing the total number of participants to 649 since the course began in 2009.
- The Electric Home Appliances Customer Satisfaction Division received approximately 2.3 million instances of customer feedback in fiscal 2014.
- We conduct semiannual customer service evaluation surveys at some 90 service centers in Japan.

## Customer Satisfaction Activities

Core Policy >>

### CS Improvement Activities

Using the Customer Satisfaction Management Guidelines, one of the pillars of our business management, we continue 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

Frameworks >>

### 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, and Kansai area operations hold executive seminars for local customers. Through direct dialogue with customers participating in our seminars and lectures, we incorporate their expectations for Hitachi and their opinions into product strategies.

We also hold the Hitachi Innovation Forum, which includes lectures, business sessions, seminars, and exhibits showcasing new businesses and initiatives targeting social innovation. Project leaders explain details to customers to deepen their understanding of Hitachi's business. We use feedback from this forum to improve our operations.

Our R&D Technology Community program provides opportunities for creation through collaboration with customers. Project leaders invite customers to their research labs to see exhibits of products and systems currently being developed.

Frameworks >>

### 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 2014, 85 Hitachi Group company employees took the course (bringing the cumulative total to 649 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.

Frameworks >>

### Improving Customer Satisfaction in Electric Home Appliances

The Electric Home Appliances Customer Satisfaction Division has enabled the expansion of Hitachi's business from electronic and electric equipment to the environment business by drawing up a vision for environmental value creation, actively promoting various service areas.

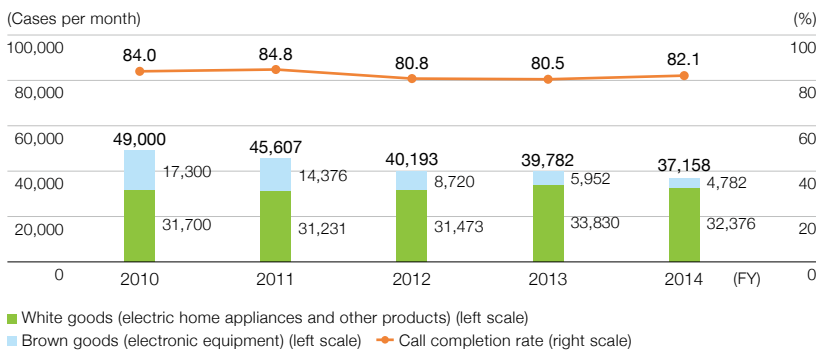
Our call center and website handle about 2.3 million customer inquiries, repair requests, and complaints about washing machines, LCD TVs, and other appliances per year.\*1 We have undertaken a number of initiatives to better respond to inquiries and to reflect customer feedback in our *monozukuri* craftsmanship, 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.

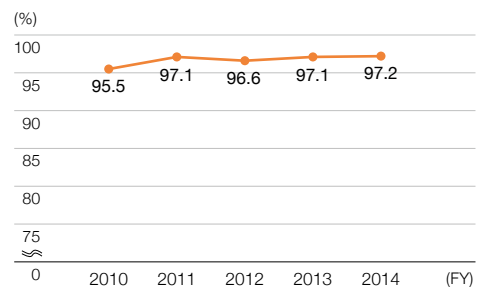
With the expansion of Hitachi's markets outside Japan, sales offices have been opened in eight countries in Asia and the Middle and Near East. We are also working on unifying management of operations outside Japan.

\*1 Beginning in fiscal 2013, technical inquiries from suppliers and parts orders are excluded from these statistics.

#### Customer Contact Cases, Call Completion Rate (12-Month Average)

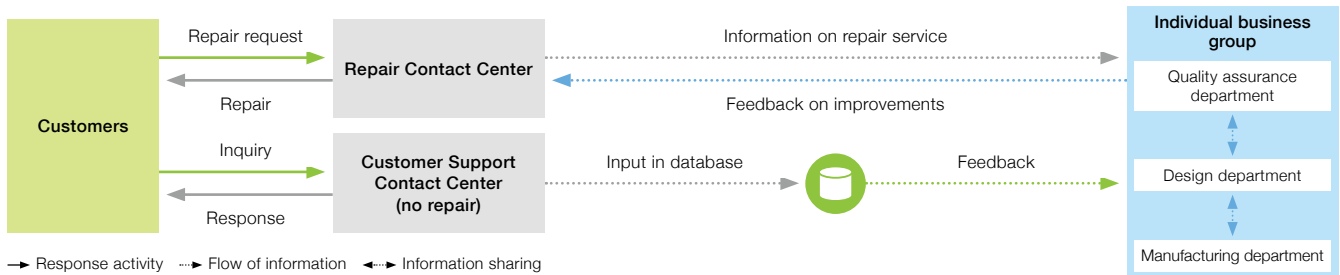


#### Results of Evaluation Survey for Customer Repair Services (Customer Satisfaction)



Notes: Evaluation survey for 2014 carried out in June–July 2014 (35,400 respondents; 37.8% response rate) and December 2014–February 2015 (28,800 respondents; 39.0% response rate).

#### Flow of Customer Service



## Universal Design

### Policies and Frameworks >>

### Promoting 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 lifecycle. 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 the lifecycle 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.

### Key Approaches >>

### Increasing UD Products in Digital and Home Appliances



Instruction DVD.

We define people as customers as soon as a product interests them, and therefore make a point of considering UD concepts in all stages, from presales to disposal. Key attributes are usability, features, harmony with the environment, safety, and maintenance. Our intention is to provide products that suit the physical capabilities and lifestyles of all customers and are appreciated for a long time.

Our UD focus extends beyond products to include product manuals. For example, to allow the visually impaired to use our products safely and easily, we are working with the NPO Kanagawa Information, Employment, and Welfare Network for the Visually Impaired (View-Net Kanagawa) to make our manuals available as audio text files.

The entire manual, including photographs, diagrams, and tables, is converted into a text file that can be played aloud using text-to-speech software (a screen reader for the visually impaired) and made available online. The text files are created based on feedback from visually impaired people who have operated and verified product use while listening to the instructions.

We have also launched a range of measures to improve the accessibility of increasingly complex electronic consumer appliances for the elderly and disabled. DVDs providing clear explanations on product use are included with products, while some products have Japanese Braille labeling on their buttons.



Verifying audio text files for product operation.

Key Approaches >>

Bringing UD to Public Equipment and Systems

Public equipment and systems are used by a large number of people, including children, either individually or collectively, in public spaces like government buildings, stations, railways, and hospitals. Product design must address not only ease of use but also security, privacy, and safety.

For example, our automated teller machines (ATMs) include considerations and ideas based on a human-centric approach aimed at producing a machine that a range of people can operate in the same way with ease and without any particular concern. The arched guide frame leads hands naturally toward the card, bankbook, and cash slots. The open space below the user panel has been substantially deepened to improve wheelchair access.

The screen interface, designed to be easier to use regardless of differences in color vision, has received Color Universal Design certification\*1 from the NPO Color Universal Design Organization (CUDO).

\*1 CUDO Color Universal Design certification: Granted where the color schemes used in products and facilities, etc., are tested and found to be consistent with CUDO standards for color UD, the concept of designing products and facilities for universal ease of use, regardless of people's differences in color perception. The aim of the CUDO certification system is to contribute to the public good by creating a society that accommodates individuals' differences.



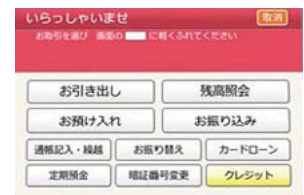
AKe-S next-generation ATM.



An arched guide frame leads hands naturally toward the slots.



An inset front face below provides better wheelchair access.



A display screen accommodating color vision differences.

Key Approaches >>

Increasing UD Products in Web and Information Systems



Screenshot of the Assistance for Color Generation tool.

Web and information systems are essential for gathering information and communicating. For users with disabilities who have difficulty accessing information, it is particularly important to make systems accessible, usable, and secure. Hitachi promotes UD that ensures accessibility in our Web and information systems by using the international Web Content Accessibility Guidelines (WCAG) 2.0.\*1 Examples include screens and layouts that are easy to read, compatibility with screen readers that read content out loud, and a feature that allows people to alter font size and color.

The Assistance for Color Generation by CSS3 (CSS3 Generator) tool uses CSS3,\*2 enabling the rendering of gradation, shadows, glow effects, font bordering, rounded corners, and other effects that allow more people to create Web pages efficiently without factoring in colors or using images. This tool makes it easy to choose colors that can be differentiated regardless of color vision. Hitachi has made this tool available for free so that it can be used by screen designers and systems developers.

\*1 WCAG 2.0: Guidelines created by the World Wide Web Consortium (W3C) that form the basis of the Japanese Industrial Standard on information communications and Web content. The International Organization for Standardization (ISO) adopted these guidelines as an ISO/IEC 40500:2012 standard on October 12, 2012.

\*2 CSS3 (CSS Level 3): An additional specification for the W3C's Cascading Style Sheets (CSS), a language for describing the rendering of HTML and XML documents.



## Communication with Shareholders and Investors

### Hitachi's Approach

**Dialogue between corporations and investors is increasingly dynamic. To promote sustainable corporate growth and to enhance corporate value over the medium to long term, the Japanese government formulated Japan's Stewardship Code in 2014 and the Corporate Governance Code in 2015, the former laying down a set of principles for investors and the latter for corporations.**

**In addition to disclosing our management strategies, financial information, and other information in a fair and appropriate manner based on our disclosure policy, we communicate with our shareholders and investors through one-on-one meetings, investor relations (IR) events, and the annual general meeting of shareholders. With an eye to pursuing Hitachi's sustainable growth, moreover, we disclose non-financial information to enhance the transparency of our business activities and ensure that the company is evaluated from a long-term perspective.**

### Our Actions in Fiscal 2014

Hitachi engages in a wide range of IR activities, including business strategy meetings for institutional investors and analysts, tours of plants and research laboratories, and one-on-one meetings. In fiscal 2014, we held briefings on our progress with the 2015 Mid-term Management Plan and hosted an IR event presenting the business strategies of key businesses under the Plan.

- Hosted Hitachi IR Day 2014, where senior management explained their business strategies and management policies.
- Conducted approximately 740 one-on-one meetings with institutional investors and analysts worldwide.

Core Policy >>

### Ensuring Information Disclosure

We communicate with shareholders and investors based on our disclosure policy. We disclose not only information required by laws or regulations, but also information that promotes deeper stakeholder understanding of our management policies and business activities.

## Disclosure Policy

### 1 Basic Policy

Hitachi's Mission is to contribute to society through the development of superior, original technology and products. With this in mind, Hitachi seeks to maintain and develop trust relationships with its stakeholders, including shareholders and other investors, customers, business partners, employees, and regional communities. It will fulfill its responsibility to stakeholders by disclosing information in a fair and highly transparent manner and by conducting various communication activities.

### 2 Information Disclosure Standards

Hitachi discloses information as appropriate in a fair and highly transparent manner, in compliance with the law and/or regulations of the stock exchanges on which the Company is listed. Hitachi discloses not only information required by law and/or regulation, but also management and financial information it regards as useful in deepening stakeholder understanding of Hitachi management policy and business activities. Hitachi also discloses non-financial information regarding the social and environmental impact of its activities. Hitachi's stance on disclosure recognizes that society regards the above information as important.

### 3 Disclosure Methods

Hitachi uses appropriate means to disclose the information required by law and/or regulations of the stock exchanges on which the Company is listed. The Company also posts this information on its website immediately after it is disclosed. Hitachi also discloses information not required by law and/or regulations by distributing news releases, holding press conferences and presentations, posting information on its website, and conducting other disclosure activities in an appropriate, precise, and timely manner.

### 4 Quiet Period

Hitachi stipulates a quiet period of a certain length prior to earnings announcements to prevent information leaks and to maintain disclosure fairness. During this period, Hitachi refrains from answering inquiries about business performance and related matters.

### 5 Forward-Looking Statements

In its disclosures, Hitachi may make statements that constitute forward-looking statements that reflect management's views with respect to certain future events and financial performance at the time of disclosure and include any statement that does not directly relate to any historical or current fact. Such statements are based on information available at the time of disclosure and are subject to various risks and uncertainties. Certain forward-looking statements are based upon assumptions of future events which may not prove to be accurate. Hitachi discloses the factors that could cause actual results to differ materially from those projected or implied in forward-looking statements.

Core Policy >>

## Fundamental Policy Against Takeovers

The Group invests a great deal of business resources in fundamental research and in the development of market-leading products and businesses that will bear fruit in the future, and realizing the benefits from these management policies requires that they be continued for a set period of time. For this purpose, the Company keeps its shareholders and investors well informed of not just the business results for each period but also of the Company's business policies for creating value in the future.

The Company does not deny the significance of the vitalization of business activities and performance that can be brought about through a change in management control, but it recognizes the necessity of determining the impact on company value and the interests of all shareholders of the buying activities and buyout proposals of parties attempting to acquire a large share of stock of the Company or a Group company by duly examining the business description, future business plans, past investment activities, and other necessary aspects of such a party.

There is no party that is currently attempting to acquire a large share of the Company's stocks nor is there a specific threat, neither does the Company intend to implement specified so-called anti-takeover measures in advance of the appearance of such a party, but the Company does understand that it is one of the natural duties bestowed upon it by the shareholders and investors to continuously monitor the state of trading of the Company's stock and then to immediately take what the Company deems to be the best action in the event of the appearance of a party attempting to purchase a large share of the Company's stock. In particular, together with outside experts, the Company will evaluate the buyout proposal of the party and hold negotiations with the buyer, and if the Company deems that said buyout will not maintain the Company's value and is not in the best interest of the shareholders, then the Company will quickly determine the necessity, content, etc., of specific countermeasures and prepare to implement them. The same response will also be taken in the event a party attempts to acquire a large percentage of the shares of a Group company.

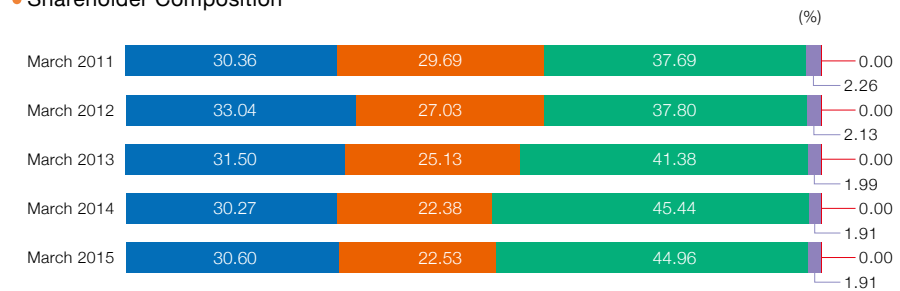
Key Approaches >>

### Promoting Dialogue Through the General Meeting of Shareholders

At the Ordinary General Meeting of Shareholders, we provide audiovisual reports designed to give shareholders a thorough understanding of our situation. After the general meeting of shareholders, we disclose management policy explanations from our president for shareholders and investors via our website. To give stakeholders ample time to consider our proposals, we post notices of annual general meetings of shareholders earlier than legally required on our website, as well as delivering them to shareholders by postal mail. Supplementary information on the proposals is also made available on our website.

Report on the 146th  
Business Term

#### Shareholder Composition



■ Financial institutions and securities companies ■ Individuals and others  
■ Foreign investors ■ Other institutions ■ National and local governments  
Source: Report on the 146th Business Term.

Key Approaches >>

## Promoting a Proactive IR Approach

Our investor relations (IR) activities include business strategy meetings for institutional investors and analysts, tours of plants and R&D facilities, participation in brokerage-sponsored investor meetings, and one-on-one meetings with investors and analysts.

In fiscal 2014, we held quarterly financial results briefings and corporate strategy meetings on our progress with the 2015 Mid-term Management Plan. Following on from fiscal 2013, we hosted Hitachi IR Day 2014, where senior management explained their business strategies and management policies under the Plan. Feedback from institutional investors and analysts was positive. Their comments included, “I was able to really see that the Hitachi Group aspires to being a global company,” and “It was a productive day in that we were able to hear about the essence of Hitachi’s business strategies and direction in a short period of time.”

We also held a tour of Kasado Works to deepen understanding of our railway systems business, in addition to conducting approximately 740 one-on-one meetings with institutional investors and analysts worldwide. Senior managers visit institutional investors in North America, Europe, and Asia twice a year to explain management policies and business directions. We are doing our best to share IR feedback in-house and reflect this in management and operations.

We are committed to timely disclosure, and we post briefing materials and business performance as well as stock price trend charts on our IR website.

IR Library 

### Disclosure Tools

- Financial results
- Annual securities/quarterly reports in accordance with the Financial Instruments and Exchange Act of Japan
- Annual reports
- *Hitachi Group Sustainability Report*

## Social Contribution Activities

### Hitachi's Approach

**Modern society faces a wide range of societal issues, including the environment, poverty, and human rights infringement, and it requires the power of society as a whole to solve these issues. As business activities are becoming increasingly globalized, we believe that an important role for a company is not only to contribute to society through its business activities but also to get involved as a community member in the local communities where it does its business.**

**We promote activities in the key areas on which our policy on social contribution activities focuses: human development, the environment, and community support. Through our technologies and know-how, we also seek to contribute to solving societal issues together with other organizations, including municipalities and NPOs.**

### Our Actions in Fiscal 2014

In fiscal 2014, we revised our policy on social contribution activities based on our own CSR management framework. Many of our employees proactively organized and participated in community-oriented events and activities in various places worldwide where Hitachi has operations.

On April 1, 2015, the five foundations in Japan long supported by Hitachi merged into a new foundation, the Hitachi Global Foundation, to further develop their activities together.

- Provided 2,327 million yen in funding for social contribution activities.
- Launch of the Hitachi Global Foundation.

Core Policy >>

### Revision of Policy on Social Contribution Activities

In fiscal 2014, we revised our policy on social contribution activities based on our own CSR management framework. With the new Group-wide policy on social contribution activities, we will proactively promote our activities. The engine of our various businesses including social innovation is not only driven 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 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 2014, the total funding of the social contribution activities implemented worldwide by Hitachi and the five foundations in Japan was approximately 2,327 million yen.

## Policy on Social Contribution Activities and Statement

### Policy on Social Contribution Activities

Hitachi 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

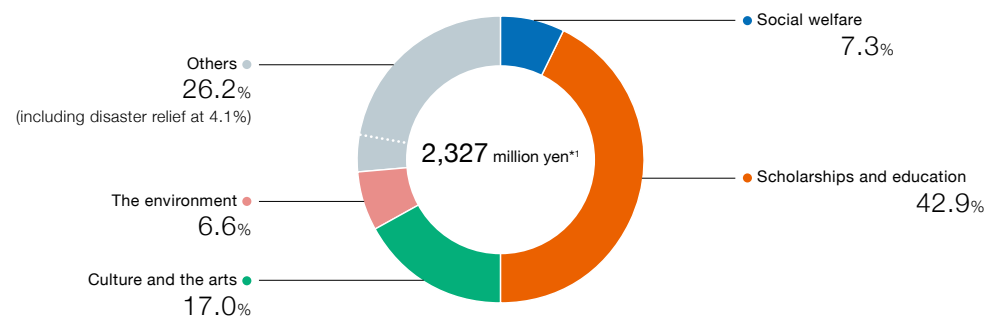
“Nurturing People, Connecting to the Future”

The statement was set down to succinctly express and convey the meaning of the policy to as many people as possible.

Social Contribution Activity 

### Key Indicators

#### Breakdown of Funding for Social Contribution Activities



\*1 Japan: Hitachi, Ltd., 137 Group companies (including variable interest entities), and five foundations.  
Outside Japan: 199 Group companies.

Policies and Frameworks 

## Launch of the Hitachi Global Foundation

On April 1, 2015, five foundations in Japan long supported by Hitachi, namely, the Odaira Memorial Hitachi Education Foundation, the Kurata Memorial Hitachi Science and Technology Foundation, the Hitachi Environment Foundation, the Hitachi Scholarship Foundation, and the Hitachi Mirai Foundation, merged into a new single foundation called the Hitachi Global Foundation. The aim of this launch is for the Hitachi Global Foundation to develop the activities respectively undertaken by each of the five foundations to further meet societal needs.

While inheriting the philosophies of the five foundations, the Hitachi Global Foundation plans to promote activities in three key areas: (1) human development, (2) promotion of academic research, science and technology, and environmental preservation, and (3) support of local communities, utilizing Hitachi's experience and know-how.

Key Approaches >>

## Social Contribution Activities in Japan

### Supporting Young People's Curiosity at the Ibaraki Children's University

Hitachi Research Laboratory, Hitachi, Ltd., has been dispatching researchers to serve as instructors at the Ibaraki Children's University, a program run by the North Ibaraki Lifelong Learning Center. The company is providing support by having these instructors give upper-grade elementary school students easy-to-understand explanations of highly specialized technologies and know-how. Ibaraki Children's University was launched in fiscal 2014 by Ibaraki Prefecture as a consortium that expands children's intellectual horizons by sparking their curiosity and answering their questions. Instructors include university professors and company researchers. The aim is to give participating students comprehensive knowledge through their studies, thereby fostering their creative power and helping them develop the ability to solve problems themselves.

In November 2014, a course titled "Learning About New Technologies that Will Open Up the Future" was offered at the Omika site of the Hitachi Research Laboratory. Six Hitachi employees participated, including one as course instructor. The employees provided the roughly 80 students gathered for the course with instruction on the topics of radiation and nuclear power generation, as well as related technologies. Elementary school participants in Ibaraki Children's University praised the course for explaining these topics in a way that was fun and easy to understand. Plans call for this activity to continue for three years.

### The Black Jack Seminar: Deepening Understanding of Medical Work

Since 2013, Hitachi General Hospital and Johnson & Johnson K.K. have teamed up to offer the annual Black Jack Seminar that provides junior high school students in Hitachi City with hands-on experience related to the work of medical professionals. The aim is to raise the students' interest in medicine by giving them the chance to manipulate the actual medical equipment used for surgery. The lack of medical staff at hospitals has been identified as a major issue facing Japan's medical field, and the role of the seminar is to convey to students the importance of the profession so that area students will have more knowledge to draw on when later deciding their own career paths.

At the seminar held at Hitachi General Hospital in August 2014, 36 junior high school students received training in suture techniques, ultrasound scalpel operation, and the use of laparoscopes, as well as the chance to conduct simulated surgeries, tour the operating room, and learn about first-aid techniques.

Feedback from participating students included the comments that the seminar provided "a valuable experience that can't be gained in daily life" and that it was an "opportunity to think about my future."

### Supporting the Visually Impaired with Matching Gifts

Since 1993, Hitachi Building Systems Co., Ltd. (HBS) has been providing donations to support the effort to train guide dogs. The company introduced a matching-gift system in 1997 under which it has been providing donations every year to 11 support organizations\*1 for the visually impaired in Japan. The matching-gift system deducts 100 yen from the monthly paychecks of employees who endorse the program and matches that donation with another 100 yen from the company. Around half of the workforce has joined this system, which provides a framework for building up donations.

HBS sets aside time every April during new-employee orientation to teach about the company's social contribution activities, including a workshop on issues related to the visually impaired. During fiscal 2014, 253 new employees at HBS and its affiliated companies



The Black Jack Seminar held at Hitachi General Hospital.



Holding a workshop for new employees on issues related to the visually impaired.

participated in a lecture conducted by staff from a guide dog training center and users of guide dogs. The participants wore eye patches and walked around while being escorted by the dogs or using white canes. Through this experience the employees, who had not had many opportunities during their student days to learn more about what life is like for the visually impaired, were able to gain a deeper understanding of the company's social contribution activities and of issues facing the visually impaired. Plans call for these activities to continue in 2015 as a way to provide support to people with visual impairments.

\*1 The 11 support organizations for the visually impaired are the Japan Braille Library and the 10 guide dog training centers certified by the National Public Safety Commission.

### Wind Power Information at Eco Carnival '14 in Shibata

In September 2014, Hitachi, Ltd. and Hitachi Capital Corp. participated in the Eco Carnival '14 in Shibata event at the Aeon Shopping Mall in Shibata, Niigata Prefecture. The event, which is hosted every year by the cities of Shibata and Tainai, showcases the environmental activities of businesses, governmental bodies, and schools in the area to the public. The two companies began participating in the event as a result of their joint project with Hitachi Wind Power Ltd. to create the Nakajo Wind Power Station in Tainai. The power station was set up on the grounds of Hitachi Industrial Equipment Systems Co., Ltd., and became operational in March of that year.

The Hitachi booth at the event included a model of the wind power plant, panels explaining the wind power system specifications, and photographs from the facility under construction, as well as a quiz for kids visiting the event. Around a hundred children took the quiz as a fun way to learn more about wind power.

### Efforts to Foster Future Scientists

We are engaged in a diverse array of initiatives aimed at fostering future scientists that draw on the resources of each company within the Hitachi Group.

### Hitachi Science Seminar

Since fiscal 2011, the Hitachi Science Seminar program has been encouraging children's interest in science. In hands-on programs, Hitachi Group companies involve children in science experiments and projects in an enjoyable way, sharing with the next generation the skills and know-how developed through our long *monozukuri* tradition. The seminar courses cover a wide range of topics, from materials familiar to children in their daily lives to technologies and products that are vital to the world today.

In fiscal 2014, Hitachi Group companies held seven Hitachi Science Seminars at the Science Museum in Tokyo. The seminars drew 135 elementary and junior high school students. The Hitachi organizations involved in running the seminars included the Central Research Laboratory of Hitachi, Ltd., Infrastructure Systems Company, and Hitachi Chemical Co., Ltd. For its seminar, Hitachi Chemical invited Kazuhiro Miyamoto, a teacher at Kaisei Academy, a junior and senior high school in Tokyo, to conduct experiments that included creating bath powder from citric acid and baking powder and making a super ball by adding salt to laundry starch containing polyvinyl alcohol. In the sphere of biology, guest instructor Tatsuo Motokawa, professor emeritus at the Tokyo Institute of Technology, presented a seminar on fun ways to learn about the biological mechanisms of living creatures. Hitachi will continue to draw on the technologies and strengths of Group companies for educational support programs that address diverse themes to foster children's curiosity.



Announcing environmental activities at the Eco Carnival '14 in Shibata.



A scene from the hands-on program, Hitachi Science Seminar.





Participants in the “Discovering the Mysteries of Water Creatures” event at Sumida Aquarium.

### Workshops with Sumida Aquarium to Nurture Students’ Scientific Minds

Hitachi Chemical Co., Ltd. has teamed up with Sumida Aquarium in Tokyo since 2013 to hold a series of small-group workshops titled “Discovering the Mysteries of Water Creatures.” In fiscal 2014, nine workshops were held, with around 60 elementary school students participating.

Observers note that elementary school teachers in Japan tend to have backgrounds in the humanities, rather than science, so there are few teachers able to teach science and conduct experiments in a proactive, creative way. This lack of teachers specializing in science is thought to be one of the reasons that interest in science has been declining among Japanese children. The workshop series was brought about by the collaboration between Hitachi Chemical, which has experience in planning and conducting science-related programs, and Sumida Aquarium, which is interested in offering programs that can spark participants’ interest in science. The workshops give children an opportunity to encounter science outside of school, in the hope that these events will spark their interest and lead some of them to later pursue a scientific career. We plan to continue these kinds of efforts to nurture children’s scientific minds and understanding of the value of life.



A scene from the *monozukuri* workshop conducted by the Hitachi Science Club.

### Supporting Science and Math Education in Hitachi City

The city of Hitachi’s educational objectives are to foster an interest in science and to cultivate the creativity and originality of children on an international stage. Hitachi, Ltd. approves of these objectives, and in fiscal 2009 concluded a basic agreement to work with the city on programs that enrich science and mathematics education. The Hitachi Science Club, an NPO established by former employees of Hitachi, is involved in this effort to improve education in science and mathematics. In fiscal 2014, the club conducted six different programs.

The club dispatches volunteers called Rika-shitsu no Ojisan (Mr. Science) to teach an experiment-based course two times a week to elementary school students in Hitachi City, offering them a fun way to learn about science. Another program is the Super Science and Math Academy held on school holidays, providing high-level instruction to junior high school students with a strong interest in science and mathematics. A particularly popular aspect of the program is the *monozukuri* workshops, where students and former Hitachi engineers build devices like water-powered rockets made from plastic bottles, windmills, and propeller-driven cars.

These initiatives are based on the view that children naturally tend to be familiar with nature and science, but are moving away from science because of a lack of first-hand opportunities. This makes it important for them to be exposed to science while in elementary school in order to foster their scientific dreams.



Harvesting rice as part of the Hitachi Volunteer Seminar activities.

### Hitachi Volunteer Seminars: The First Step in Social Contribution

Since 2002, Hitachi, Ltd. has been holding Hitachi Volunteer Seminars for Group employees and their families for them to experience volunteering and regularly participate in volunteer activities. In fiscal 2014, 148 people participated in the five workshops, which included information about rice planting and harvesting in the town of Moteji in Tochigi Prefecture and about volunteer work at the Setagaya Museum of Art.

The seminars were designed around three main points: (1) ease of participation, (2) small size for deeper interaction with the instructors, and (3) content that leads participants to actually engage in volunteer work. In collaboration with the Tokyo Voluntary Action Center, the seminars introduced a variety of activities that suit the social contribution activities policies of Hitachi, which are centered on education, the environment, and community support. To let as many Hitachi employees as possible participate despite their busy schedules, the seminars were scheduled on the evenings of no-overtime days or on holidays so that family members could also participate.

Feedback from employees who participated in the seminars included the following comments: "I'm interested in volunteer work, but until now I haven't had an opportunity to get involved. I'm really grateful for this chance"; "Since I don't have any volunteer experience I was worried that I wouldn't be of much help, but participating in the seminar made me more aware of the situation for farmers in Japan today. This has changed my outlook."

As of the workshop in September 2014, a total of 50 seminars have been held since the program was launched. The program will be extended to fiscal 2015 and beyond as a way for participants to learn new things while experiencing volunteer work, encouraging them to take the first step toward getting involved in volunteer work.

### Special Sales Event to Support the Disabled and Contribute to Local Communities

Hitachi, Ltd. and its Group companies have invited NPOs involved in a wide range of activities to use company facilities to sell products or put up displays about their activities. These NPOs include international organizations that handle fair-trade products and organizations involved in social-welfare activities. Purchasing the products offered by these NPOs is an easy way for Hitachi employees to get involved in social contribution activities, as the sales sustain the organizations' activities. These direct sales on Hitachi premises also assist the livelihoods of disabled persons in the area by boosting their income, while deepening employees' understanding of those with disabilities.

### "Buy and Help Society! Bazaar" Events

At its head offices in Tokyo's Marunouchi and Akihabara districts, Hitachi, Ltd. held a total of seven "Buy and Help Society! Bazaar" events from fiscal 2010 to 2014. Starting in 2012, we invited NPOs active in the recovery effort in Japan's Tohoku region following the earthquake and tsunami of the previous year to visit our head offices for recovery-themed events. These efforts have included the sale of special products from the disaster area and of candy and other products created at social welfare centers, as well as the diffusion of information about the organizations' activities via the Hitachi intranet and e-mail newsletters. We plan to continue to provide this sort of support in the future.



Hitachi employees buy products made in areas affected by the 2011 earthquake at a "Buy and Help Society! Bazaar" event.



Event in Tokyo's Toshima Ward to sell goods from Tohoku to assist disaster recovery efforts there.

### Charity Concert and Sales to Promote Disaster Recovery

In November 2014, three Hitachi companies—Hitachi Plant Construction, Ltd., Hitachi Plant Services Co., Ltd., and Hitachi Plant Mechanics Co., Ltd.— jointly hosted a charity concert and sales event to promote disaster recovery in Tohoku. The event was held at the Sunshine City complex in Tokyo's Toshima Ward. In the Sunshine City fountain plaza, students from the Tokyo College of Music, which is located in the area, gave a musical performance, and artists with connections to northeast Japan displayed their works. Elderly residents of a social welfare facility in Toshima Ward were also invited to the event. This community-rooted undertaking was a huge success thanks in part to the roughly 30 employees from the three Hitachi companies who volunteered to coordinate it. This charity concert has been held since 2012.



"1 Day Shop" event to sell products made by disabled from the training facilities.

### Special Sales Event for Products Made at Facilities for the Disabled

Since 2009, Hitachi Solutions, Ltd. has held "1 Day Shop," a special event set up for sales of products created at facilities for the disabled. The aim of the sales event is to support disabled persons who are producing goods at welfare facilities in Tokyo. In fiscal 2014, vendors from 13 facilities attended the event, offering shoppers a variety of products, such as tasty handmade cookies, pound cakes, and *karinto* snacks, as well as leather goods, wooden toys, and accessories.

### Putting IT to Use for Society

As part of Hitachi's social innovation business, the Digital Imaging Systems (DIS) Project has been launched by Hitachi, Ltd.'s internal company, Information and Telecommunications Systems Company. The key concept is to convey beauty and inspiration to people in a way that transcends time and place. This involves using the power of IT to digitize cultural assets for future generations. The DIS Project uses its unique divisional shooting and image processing procedure to capture artworks in high quality. Currently this technology is being used in Florence, Italy, to digitize masterpieces including *Annunciation* by Leonardo da Vinci. Other projects include digitization of the Picture Scroll of the Tale of Genji, one of Japan's national treasures, as well as digital restorations of the lost screen paintings at the Ninomaru Palace of Nijo Castle and of the lost dragon painting on the ceiling at Togakushi Shrine, the latter of which had been completely destroyed by fire.

In addition, beginning in 2012, we provided IT-based support to the Goshogawara Agriculture and Forestry High School, a prefectural school in Aomori Prefecture that is fostering human resources to revive the local area and contributing to so-called "sixth industry" initiatives for agriculture. By connecting producers (the students) and consumers in Goshogawara with IT, this project aims to enhance the ability of both sides to share information, as well as to promote community-based activities. A facility called My Farm Center has been established to connect producers and consumers, and practical testing of the initiatives is now underway. When My Farm Center was launched, Hitachi, Ltd. provided support including explanations of how the center's systems worked and how to input data. Thanks to this program, Hitachi is also now involved in Goshogawara initiatives to train human resources and promote the local economy.



Digital life-size representations of *The Birth of Venus* by Sandro Botticelli, and many other Italian masterpieces, are exhibited at the DIS Digital Museum.

Key Approaches >>



Students enjoying the lesson at Hitachi Hope Elementary School.



The affected elementary school supported by Hitachi.

Key Approaches >>



Volunteers of Kokusai Electric Korea repairing housing.

**Social Contribution Activities in China**

**Hitachi Eco Education Classroom Program in China**

Hitachi (China) Ltd. has been implementing the Hitachi Eco Education Classroom Program since fiscal 2012, targeting elementary schools in the areas where Hitachi Group companies are located in China. The program involves Hitachi employees volunteering to visit and give lessons on the environment to schoolchildren. The aim of the program is to raise awareness of the need for environmental conservation among the pupils, as environmental issues are becoming severe in China today. In fiscal 2014, 16 lessons were held and around 1,200 children participated.

In the lessons, pupils used an optical microscope to examine plants to better understand the mechanism of photosynthesis and enjoyed a play on environmental protection by Hitachi volunteers. The lessons helped the pupils gain practical knowledge of water conservation and trash sorting while they also had fun with a quiz. It was a good program to raise the pupils' environmental awareness and a great opportunity for the schools to get connected to society, according to teachers from the schools where the lessons were carried out.

**Disaster Relief for Victims of the Yunnan Earthquake**

Hitachi, Ltd. and Hitachi (China) Ltd. donated 1 million yuan (approximately 16.5 million yen) through the China Development Research Foundation in December 2014 for Yunnan Province, China, and those affected by the earthquake that occurred in August of that year. The donation fund is to be used to rebuild the Xitu Elementary School in Huize County of Yunnan, which was damaged by the disaster. The school officials and local residents expressed thanks and noted that they would have the school reconstructed with the donation from Hitachi. The new school building is to be completed by around the summer of 2015 and children will be able to go back to school in the fall.

**Social Contribution Activities in the Asia-Pacific**

**Helping to Rebuild Homes in South Korea**

In April 2014, employees of Kokusai Electric Korea Co., Ltd., an overseas Group company of Hitachi Kokusai Electric Inc., teamed up with a volunteer organization to visit some homes of physically challenged persons in Anseong City, Gyeonggi-do, South Korea, to repair houses that were in danger of collapsing. The residents of the houses expressed great appreciation for this effort, in which 24 employees participated. This experience helped the participants realize the importance of volunteer activities and become more motivated to take part in other volunteer projects in the future.

In addition, 44 employees of Kokusai Electric Korea volunteered to participate in a blood donation campaign to assist children suffering from a cardiac disease. In South Korea, blood donors receive a donation certificate that exempts them from the cost of a blood transfusion, should it be necessary. As gratuitous transfers are allowed, all the volunteer blood donors transferred their certificates to children in need of blood transfusions due to the cardiac disease.



An employee of Hitachi Power Tools Australia offering instruction to trainees.

### Providing Unemployed People with Construction Skills

In 2013, Hitachi Power Tools Australia Pty. Ltd. began a partnership with the Government of Australia and Skill Hire, a company that provides unemployment solutions and technical training to apprentices and trainees. This partnership aims to train unemployed people in Western Australia in tradesman power tool skills for the construction industry. Hitachi Power Tools Australia has been providing Skill Hire's training center with innovative trade tools and equipment, and company employees have offered technical assistance on how to use them.

In 2014, 1,000 trainees participated in the joint training in this highly valued program. Some of them will even start their own businesses after the training. Through this initiative, Hitachi Power Tools Australia has been able to address a local societal need with a partnership model bringing together the private and governmental sectors. The company is committed to growing the program beyond Western Australia and ensuring long-lasting sustainability for the partnership.



The "Project Green" logo.

### Promoting Recycling of Decommissioned Projectors

Hitachi Australia Pty. Ltd. launched "Project Green" in May 2013 as a way of promoting recycling of decommissioned projectors in the education sector. Up to 97% of projector components and materials, such as plastic, metal, and glass, are recyclable. To encourage schools to recycle their old projectors, Hitachi Australia offers cash back when new Hitachi projectors are purchased. In 2014, the project was expanded and executed across all of Australia. So far, over 50 schools have participated in the project, and roughly 680 kilograms of projector parts have been recycled. Hitachi Australia aims to reach the target of 1,000 kilograms of recycled parts for fiscal 2015.

### Donating Pediatric Equipment via Charity

Hitachi Construction Machinery (Australia) Pty. Ltd. began a partnership in 2012 with the Humpty Dumpty Foundation, an organization that provides life-saving medical equipment to pediatric wards in the country. The aim of this effort is to carry out activities that help "put kids back together." In 2014, Hitachi Construction Machinery (Australia) donated over 20 pieces of equipment across six states of Australia, which represents a total value of over AU\$98,000.

The company also participated in charity events such as the Balmoral Burn hill-running race for the foundation. The foundation states that the continued support by Hitachi has been of immeasurable value to the life-saving activities it conducts in Australia.

Additionally, 75 employees of Hitachi Group companies in Australia participated as "Team Hitachi" in the August 2014 "City2Surf." This 14-kilometer road-running charity event in Sydney attracts over 80,000 participants every year, making it the world's largest charity race. The Hitachi runners raised a total of AU\$21,000, all of which was donated for three pieces of medical equipment for child patients through the Humpty Dumpty Foundation. Team Hitachi has run in the race for six consecutive years since 2009.



Medical equipment donated to a pediatrics hospital in Australia.

Key Approaches >>



Participants in the employability training.



The vehicle used for free cancer screening for women.



Students designing a new product with the UD concept.

## Social Contribution Activities in India and the ASEAN Region

### Employability Program for Indian Students

The Confederation of Indian Industry (CII), of which Hitachi Data Systems India Pvt. Ltd. is a pivotal member, launched an employability training program for affirmative action in 2014 for students from scheduled caste or tribe communities in India's Karnataka State. Although the caste system was legally abolished in the 1950s, the communities are still suffering socially and financially, which constricts their members' job opportunities.

In the first year of the program, the program provided 15 deserving university students from the communities concerned with training in design engineering, including practical skills using CAD/CAM. In addition to Hitachi Data Systems India's contribution to the program design and execution, Hitachi Data Systems Corporation in the United States and other member companies of the CII donated US\$2,000 for the training costs. As of the end of April 2015, three students have received job offers and two students are shortlisted in one company's hiring process.

Hitachi Data Systems India and the CII continue to raise awareness among potential hiring companies to recruit the group of trained engineering students. The CII will continue the program in fiscal 2015, and is planning to expand the program to between 100 and 500 students.

### Teaming Up to Provide Free Breast Cancer Screening in India

In India, corporation laws were revised in 2014 to require companies to donate 2% of their pretax earnings to CSR activities. In response, Hitachi India Pvt. Ltd. partnered with ROKO Cancer,<sup>\*1</sup> an NGO that has been active in promoting cancer screening, to offer free breast cancer screening at 31 locations in and around Delhi. The vehicle used for the screening featured the Hitachi corporate logo; its color was pink to match the pink ribbons that have become the international symbol of breast-cancer awareness. The doctors and other staff performing the checks were mainly women, so that those receiving the screenings could feel at ease. Hitachi India Pvt. Ltd. was presented as the sponsor of this initiative at the free screening held at a temple in New Delhi on January 20, 2015, and many people expressed their appreciation for this effort.

\*1 ROKO Cancer: An organization involved in providing free cancer screenings; the word "roko" in the name means "stop."

### Universal Design Educational Program in Malaysia

In 2011, the Malaysia office of Hitachi Asia Ltd. began the Universal Design (UD) Educational Program for public junior high school students in Malaysia. The program involves volunteers from Hitachi Group companies who visit schools and provide workshops to introduce UD. The program was started in Japan in 2005, and now is conducted in the United States and United Kingdom, as well as in Japan and Malaysia. The aim of the program is to teach students about the importance of designing products that could make life easier for all users, regardless of age, gender, cultural background, or physical conditions.

In October 2014, eight volunteers gave a lecture on UD to 71 students. The students were divided into groups and asked to design new products based on the UD principles. The feedback from the students was positive, with some saying that they hoped to participate in future classes of the program and that they would tell their friends and family members about UD. Hitachi Asia's Malaysia office plans to continue the program to nurture the youth for a better society.



Students studying in the specialized course.

### Supporting Degree Studies on Heavy Equipment Engineering in Indonesia

PT Hexindo Adiperkasa Tbk (Hexindo), a Group company of Hitachi Construction Machinery in Indonesia, has been teaming up with Gadjah Mada University (UGM) since 2012 to provide a degree program on heavy equipment engineering. After taking a basic course in the first year, the students take a specialized course taught by UGM professors and Hexindo lecturers in the second year. From the third year, the students have the opportunity to participate in on-the-job training at Hexindo's project sites and they obtain a diploma in heavy equipment engineering upon graduation.

A total of 30 students enrolled in the program in its first year and 60 in the second and third years, respectively. In 2014, some of the program students were accepted by Hexindo as trainees for a year. Hexindo plans to continue to nurture young engineers in the country with UGM.



Pupils of the school that received the donation.

### Educational Support Program in Thailand

In December 2014, 12 employees of Hitachi Capital (Thailand) Co., Ltd. visited and donated educational aids to a suburban school outside of Bangkok that has 89 pupils ranging from pre-kindergarten to elementary school ages. The donation included 13 used PCs, four cartons of stationery supplies, books, drinks, and snacks, in addition to a 25,000 baht monetary donation from both the company and its employees. During their visit, the employees toured the school and had lunch with the students.

Started in 2014, the program aims to enhance the educational level of Thai students in rural areas. The teachers expressed their gratitude for the donation as well as their hope for further assistance, such as encyclopedias and books for the school library. The company intends to hold a social contribution activity each year with focus on educational support or environmental conservation.

Key Approaches >>

## Social Contribution Activities in the Americas

### Hitachi Food Drive in North America

Hitachi Group companies in North America held their 15th Food Drive in July 2014. The annual drive, launched in 1999, aims to respond to local needs related to hunger in communities where Hitachi has offices. In 2014, the Food Drive was conducted at 53 sites located in 27 states and Washington DC, and involved the participation of 8,153 employees from 23 Hitachi Group companies. As a result of the Drive, local food banks, soup kitchens, and other organizations tackling hunger received over 20 tonnes (more than 44,000 pounds) of food and monetary donations of approximately US\$125,000. Since 2000, Hitachi has collected over 260 tonnes (nearly 580,000 pounds) of food and donated approximately US\$800,000 in the fight against hunger. Representatives from the Food Bank for Westchester, one of the local organizations that receives donations from Hitachi's Food Drive, say that they always look forward to the donations from Hitachi's Drive since it takes place in the summer, when the need for the Food Bank's services is higher. Plans call for the Food Drive in North America to continue in fiscal 2015.



Employees from Hitachi America, Ltd. in Tarrytown, NY, packing some of the food they collected.



Elementary school students taking part in an experiment in the workshop.

### Hitachi Celebrates Science for Kids

For the fourth year in a row, the Hitachi Southern California Regional Community Action Committee (SCRCAC) sponsored “Hitachi Celebrates Science” Day at the Boys and Girls Clubs of San Pedro. Held in April 2014, the SCRCAC partnered with the California Science Center and Hitachi Consulting to provide science workshops to underprivileged children throughout the Los Angeles area. More than 140 elementary school students aged 6 to 11 attended this event.

Under the guidance of instructors from the California Science Center and the Hitachi Chemical Research Center, the children engaged in various experiments related to the nanotechnology theme. Many of the students look forward to this event every year. SCRCAC’s hope is to continue this event for years to come and to encourage the youth of today to pursue careers in science and technology.



Happy children receive gifts for the holidays.

### Holiday Gift Donations by Hitachi Group Companies in North America

Every year in November and December, Hitachi Group companies in North America share holiday joy with disadvantaged children and adults in their communities. The companies participate in various programs and many of their employees are involved with gift donations.

For example, Hitachi Metals America, LLC partners with the NPO New York Cares to make “winter wishes” of children and seniors come true. In 2014, the NPO collected over 40,000 letters from schoolchildren and adults that included their “winter wishes” gift requests. Employees from Hitachi Metals America took responsibility for fulfilling 40 of the wishes. A total of 27 employees purchased presents for 20 fifth-graders and 20 seniors who live in a nursing home. They also delivered the gifts to the students and seniors in person. Hitachi Metals America is eager to involve a greater number of employees in this program in 2015.

Other Hitachi Group companies in North America took part in similar activities. Hitachi Computer Products (America), Inc. and Hitachi Metals Automotive Components USA, LLC, respectively, worked with their local organizations to collect gifts through the Angel Tree Gift program. About 15 employees from Hitachi High Technologies America, Inc. volunteered to make over 250 boxes of food and wrapped gifts for local children and the elderly. All who received or gave gifts were very happy with these activities, and Hitachi Group companies plan to continue this effort in 2015 and beyond.



Key Approaches >>



Participants in the 27th speech contest.



Hitachi Europe employees selling cakes.



Hitachi's pink excavator for raising donations.



The 2014 engineers receiving a completion certificate at the final presentation.

## Social Contribution Activities in EMEA/CIS

### Supporting the Japanese Speech Contest

The Moscow Office of Hitachi, Ltd. supported the 27th Moscow International Students Japanese Speech Contest in October 2014. This annual speech contest targets university students studying Japanese in Russia and the CIS countries. The Moscow Office has been supporting the speech contest every year since 2010. The Japanese ambassador to Russia expressed his appreciation for this support, which the Moscow Office plans to continue in 2015.

### Organizing Charity Events for Macmillan Cancer Support

In 2014, the Fundraising Committee of Hitachi Europe Ltd. held various charity events every three months beginning in June to raise donations for Macmillan Cancer Support, an organization that assists cancer patients and their family members. The fun and engaging events ranged from a table-tennis tournament, cake-baking contest, and Christmas activities to a lecture by nurses on breast cancer. In June, GBP2,490 was raised by employees from not only Hitachi Europe but also Hitachi High Technologies and Hitachi Air Conditioning in the Maidenhead area in the United Kingdom.

The fourth event, where participants enjoyed a fun evening with a quiz and an employee raffle, was held in May 2015, and raised about GBP430, bringing the annual fundraising and company matched giving total to over GBP11,300. The donations will help the charity provide nursing care and support for people living with cancer. Hitachi Europe in the United Kingdom plans to continue support for local charitable organizations, and in 2015 will hold an employee vote to determine which charity to support.

### Pink Hitachi Excavator Raising Breast Cancer Donations

Hitachi Construction Machinery (UK) Ltd. and Hitachi Capital (UK) PLC enabled a customer to support an important health charity through their business. Cosham Plant, an equipment rental company located in Hampshire, the United Kingdom, commissioned a bright pink version of a Hitachi Construction Machinery excavator in November 2014 to fundraise for Breast Cancer Care, a cancer patient support charity. Pink was chosen because it is the internationally recognized color associated with breast cancer awareness.

The target is for the excavator to raise GBP100,000 through its rental by the end of 2018, after which it will be sold, with the proceeds from the sale added to the total amount raised.

### South African Engineers Participate in Training in Japan

Since fiscal 2009, Hitachi, Ltd. has teamed up with South Africa's Department of Science and Technology to provide young South African engineers with an opportunity to participate in technical training on power in Japan. Every year, two or three engineers are selected for the three-month training course, including on-the-job training at Hitachi's various factories and relevant site visits in Japan. In fiscal 2014, two engineers participated and learned about Hitachi's smart grid technologies and power transmission and distribution. So far 15 engineers have participated, and they have said that the program gave them a better idea of the basic and advanced technologies related to power in Japan as well as Hitachi's operations. In fiscal 2015, the theme of the program will be changed from power to water treatment.

## Engagement with Society

### Engagement Highlight

#### Human Capital Executive Visits Female Employees



Workplace visit by our human capital executive.

Since fiscal 2013, our executive in charge of human capital has been visiting female employees around Japan to directly communicate Hitachi's positions on diversity and women's career success. This has produced vigorous discussion on issues like developing better work-life management and reviewing work styles. To date, our executive has visited Hokkaido, Ibaraki, Kanagawa, Tokyo, and Aichi Prefectures, and he will continue to work his way around the country for more direct exchanges of views with female employees.

#### Improving the Environment with a Chinese NGO

In fiscal 2014, the Hitachi Group began working with the IPE,<sup>\*1</sup> a Chinese nongovernmental organization focused on environmental issues. With the help of the IPE, we urge suppliers in China whose operations may be polluting the environment to improve their environmental performance. Following interviews with these suppliers, the Group companies being supplied, the Procurement Departments of the Hitachi head and Shanghai offices, and the Environment Department of the Beijing office have worked together to take appropriate measures and provide support in consultation with the IPE. We will continue to monitor our suppliers and take necessary measures, receiving updated lists from the IPE every six months, to help improve China's environment.

<sup>\*1</sup> Institute of Public and Environmental Affairs (IPE): An environmental nonprofit organization founded by Ma Jun to "eliminate businesses that pollute the environment in China." It obtains data on corporations that are potentially harming the environment from the environmental authorities and releases the data on its website.

### In Focus

#### Building Trust and Strengthening Global Human Capital

Establishing trust with such diverse stakeholders as governments, local authorities, regional communities, and nongovernmental organizations enables Hitachi to respond to the changing global society and is the base of all CSR activities. At the same time, as a global company, it is imperative that Hitachi uphold the rights of all stakeholders.

We integrate diversity into our use of human capital and work to enhance recruitment and development of global human capital. We also conduct a global employee survey, Hitachi Insights, to assess employee engagement. In fiscal 2015, we broadened the range of sharing of survey results to include managers. By helping managers apply these results toward concrete actions, we are improving engagement across the Group.

In May 2013, we adopted the Hitachi Group Human Rights Policy to supplement the Hitachi Group Codes of Conduct, drawn up in fiscal 2010. These serve as the base for ongoing activities to respect the human rights of all stakeholders, including Hitachi Group employees as well as everyone involved in Hitachi business activities, products, and services.



146th Annual General Meeting of Shareholders (Hitachi, Ltd.)



## Our Ongoing CSR Activities:

# GOVERNANCE

**Effective corporate governance is essential to cultivating stakeholders' trust and maximizing company value. In addition to establishing a highly transparent system of business operations, Hitachi is working to ensure that every employee carries out compliance according to a strict moral code and to implement effective risk management across the entire Group.**

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## Corporate Governance

### Hitachi's Approach

**In many overseas markets, there are recognized corporate governance codes that have been established to prevent corporate corruption and protect the rights of shareholders. The Japanese government applied a corporate governance code to all companies listed on the Tokyo Stock Exchange in June 2015 with the aim of bolstering sustained growth and improving corporate value over the medium and long terms.**

**Hitachi is pursuing corporate governance as a vital aspect of business operations, with the goal of bolstering value, realizing transparent and efficient management, and establishing a relationship of trust that meets stakeholder expectations. Hitachi, Ltd. and its eight major listed subsidiaries have adopted the committee system to realize a highly transparent governance system. Through our J-SOX Committee and other efforts, we maintain and evaluate the effectiveness of our internal control over financial reporting.**

### Our Actions in Fiscal 2014

Hitachi is working to implement a Group-wide system of governance covering each aspect of its global operations. As part of these efforts we reorganized the Hitachi Group into six areas of focus with the goal of boosting overall governance. We are also working to transition to an “autonomous decentralized global management” structure in which each region leads its business autonomously to accelerate proper decision making and effectively use management resources.

- Combined the Power System Group and the Infrastructure System Group under a new management structure to form the Power and Infrastructure Systems Group.
- Began implementing a shift to an “autonomous decentralized global management” structure by appointing Group representatives in the four global regions of the Americas, China, Asia-Pacific, and EMEA/CIS.

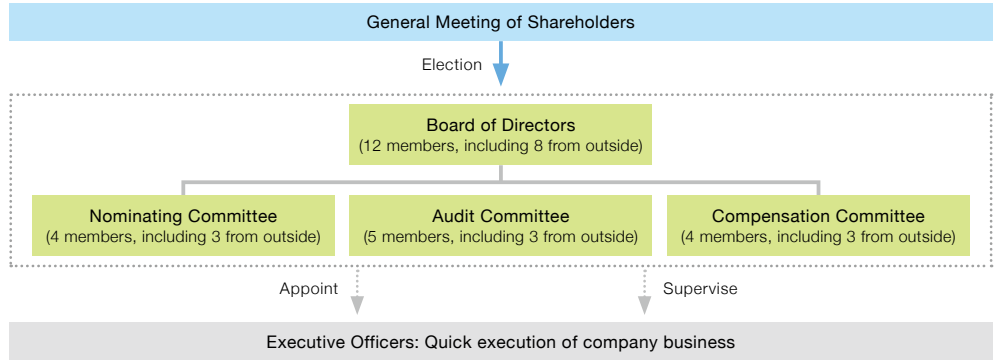
### Driving Hitachi's Governance

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 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 outside directors, and the criteria for assessing the independence of outside 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. Hitachi, Ltd. and its eight major listed subsidiaries have adopted this system.

### Governance Structure of Hitachi, Ltd.

The Board of Directors comprises a majority of 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.



Policies and Frameworks >>

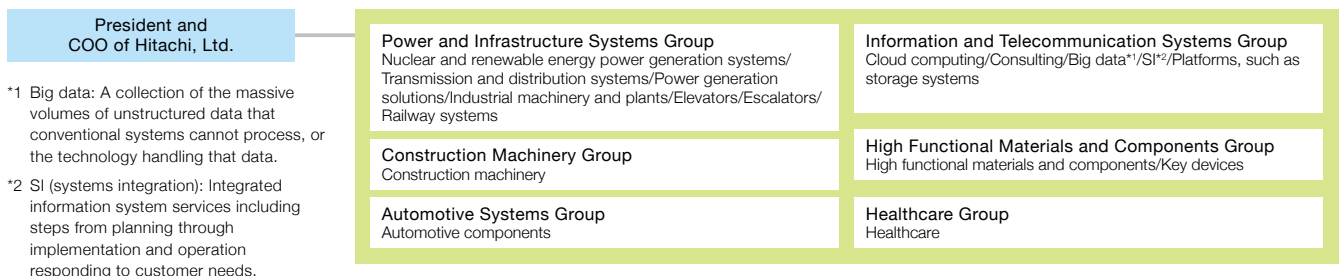
### Reorganized Group Management for Stronger Governance

We reorganized the Hitachi Group into six areas of focus under our market-driven management, with the goal of speeding up services centered on our Social Innovation Business and strengthening competitiveness in global markets related to social infrastructure. This move was designed for a rapid response to the worldwide dynamic changes in business models and services and to enable the entire Hitachi Group to present solutions to social issues as well as those faced by our customers.

### Six-Group Management Structure

In April 2012, we reorganized our existing group management system into five groups: the Information and Information & Telecommunication Systems Group, the Infrastructure Systems Group, the Power Systems Group, the Construction Machinery Group, and the High Functional Materials and Components Group. Following this, we established the Automotive Systems Group in April 2013 and then the Healthcare Group in April 2014. We established our current six-group management system in April 2015 by merging the Power Systems Group and Infrastructure Systems Group into the Power and Infrastructure Systems Group. Our six-group management structure enables us to integrate closely related business, providing maximum value to our customers by allowing for faster decision making, optimization of Group business portfolios, and enhanced global competitiveness. We will continue to introduce initiatives that strengthen our Social Innovation Business as well as improve efficiency of our business operations with the goal of staying ahead of our competitors by becoming a major global player.

### Six-Group Management Structure



### Transition to an Autonomous Decentralized Global Management System

To accelerate growth in the global market, Hitachi in April 2015 appointed chief executives who represent the Hitachi Group in interactions with regional communities and customers in the four global regions of the Americas, China, the Asia-Pacific, and EMEA/CIS.\*<sup>1</sup> In addition to creating regional growth strategies, promoting localization, and effectively utilizing management resources, the chief executives have authority to make investments in new business areas where growth is expected and are accountable for the returns or losses on these investments. The system implements a transition to an autonomous decentralized global management structure in which each region leads its business independently.

Hitachi aims to transition to an “autonomous decentralized global management” structure, providing services and solutions that leverage our strengths. Toward the goal of thorough compliance, we are also promoting coordinated global management of our operations that use management resources most efficiently. In this way, Hitachi provides innovation at the highest level and establishes firm governance as a global company.

In the Americas, where economic growth is expected, big data analytics will provide new solutions in a variety of industries, including energy, communications, finance, and healthcare. Strategies in China, which is expected to see stable, sustained growth, will be kept in line with the goals of achieving a low-carbon society and expanding internal demand in preparation for the “new urbanization” promoted by the Chinese government. Social-infrastructure-related demand is very strong in the Asia-Pacific, where the focus will be on promoting solutions targeting the healthcare industry through collaborations with local partners in the region and advancing new financial solutions targeting Japanese-affiliated banks that are expanding their regional operations. In the EMEA/CIS region, where demand for upgrades in social infrastructure and market expansion in the healthcare field are expected, the focus will be on rolling out our solutions business aimed at increasing efficiency in production and supply chains. In all these regions, the chief executives will act as regional “control towers,” developing and building solutions with Hitachi customers to resolve a variety of global issues that are becoming increasingly complex and borderless.

\*1 EMEA/CIS: Europe, the Middle East, Africa, and the Commonwealth of Independent States.

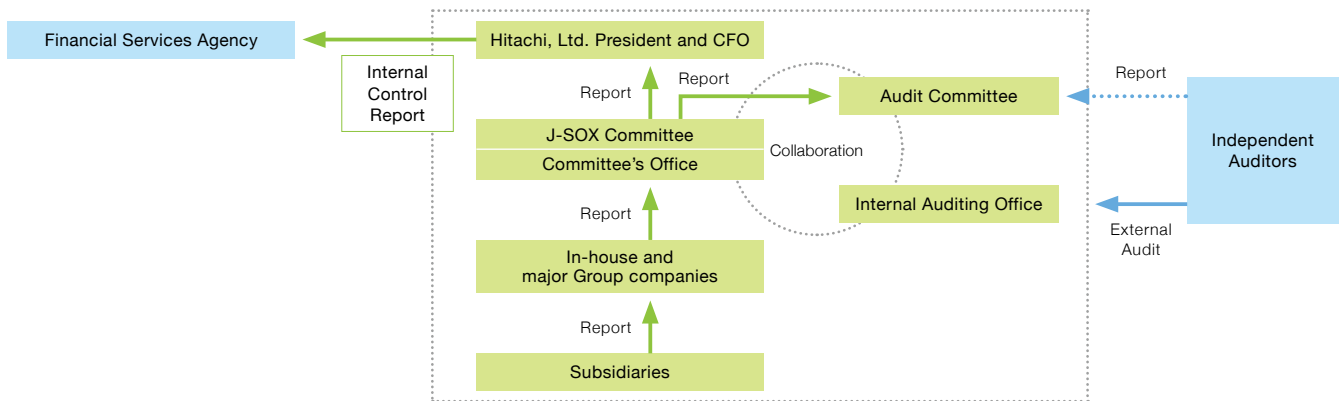
## Internal Control over Financial Reporting

To ensure the reliability of consolidated financial reporting, every company develops and uses assessment documents for company-level controls, and business process controls based on the guidelines determined by our J-SOX Committee.\*1

Our in-house companies and major Group companies have developed mechanisms to objectively perform assessments. Assessment results are reported to the J-SOX Committee's Office to assess the effectiveness of internal control.

\*1 J-SOX: A system for the development of the internal control required under Japan's Financial Instruments and Exchange Act (FIEA) that ensure the reliability of financial reporting.

### Hitachi Internal Control Assessment System



## Compensation for Directors and Executive Officers

Compensation for every director and executive officer is determined by the Compensation Committee based on the provisions of the Companies Act of Japan.

Compensation for directors and executive officers consists of monthly salaries together with year-end allowances for directors and a performance-linked component for executive officers. While compensation for directors is basically fixed, the performance-linked component for executive officers is set within a range equivalent to about 40% of the executive officer's annual income, adjusted based on Company and individual performance. Beginning with compensation for fiscal 2008, the system for directors and executive officers was revised to abolish retirement allowances. The payment of retirement allowances to directors and executive officers due to the abolition of the retirement allowance system will be in an amount determined by the Compensation Committee at the time of the retirement of those directors or executive officers. The amount of compensation for directors and executive officers in fiscal 2014 is shown below.

### FY 2014 Compensation for Directors and Executive Officers

Category	Recipients (number)	Total amount (millions of yen)
Directors (outside directors)	15 (9)	375 (247)
Executive officers	29	1,946
Total	44	2,322

\* The number of directors indicated excludes two directors who concurrently serve as executive officers.

\* Compensation to directors includes the monthly salaries of five directors, including two outside directors, who retired due to expiration of their terms of office at the close of the 145th Annual General Meeting of Shareholders held on June 20, 2014.

\* In addition to the above, there are retirement allowances of 35 million yen for one executive officer who retired on March 31, 2015.

## Risk Management

### Hitachi's Approach

**Risks that may threaten business operations can be categorized into “hazard risks” (natural disasters, war and terror, crimes, etc.), “operational risks” (illegal conduct and corruption, quality problems, etc.), “financial risks,” and “strategic risks.”**

**Hitachi strives to identify various risks and to evaluate vulnerability in order to prevent disruption and minimize damage these risks may cause to its business operations.**

**Our business is deeply concerned with developing and maintaining social infrastructure in each and every part of the world. Therefore, we commit to making the best effort to strengthen our risk management and enhance our business continuity plans (BCPs) to mitigate disruptions of and damage to business that may severely affect social infrastructure.**

### Our Actions in Fiscal 2014

A comprehensive risk management system was implemented across the entire Hitachi Group. BCPs were developed and enhanced in key operations in Japan and overseas as well. Research and risk analysis are undertaken and risk information and alerts are distributed to secure the safety of employees who work in high-risk areas of war and terror.

- Risk Officers are assigned in about 200 business operations of in-house companies and Group companies. About 300 Group companies implemented and enhanced their BCPs.
- Research and survey missions were sent to several countries in the Middle East and Africa. Timely travel alerts and warnings were distributed promptly to all business operations around the world.

### Reinforcement of Risk Management System

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

Under Hitachi, Ltd.'s Head of Risk Management, 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 has started to build a comprehensive risk management system that contains standards and procedures for evaluating any risks that may affect business.



Key Approaches >>



Hitachi Group Guidelines for Developing Business Continuity Plans (department version).



Earthquake simulation drill.

Key Approaches >>

### Creating BCPs in Key Operations Worldwide

Given the close relation of our business to social infrastructure, we are enhancing our 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* in Japanese. In fiscal 2010 these were 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 BCP guidelines for departmental implementation to further improve our BCPs. Hitachi Group operations in Japan completed their preparation and review of BCPs, based on applicability to their operations, by the end of fiscal 2011. BCPs for large earthquakes and novel strains of influenza have been prepared for 49 Hitachi, Ltd. business sites and 96 Group companies.

On top of these efforts, since fiscal 1998, Hitachi, Ltd. has held annual earthquake simulation drills at key operations in Japan. In March 2015, Hitachi High-Technologies Corporation in the Naka area of Ibaraki Prefecture held a drill simulating a potential large-scale earthquake. Directed by the head of the Naka area, managers in charge of their divisions confirmed the action plans in emergency situations based on BCPs.

In fiscal 2013, Hitachi appointed personnel in charge of risk-response policies at its main overseas bases and around 300 companies prepared BCPs with the goal of completing them for key operations by the end of fiscal 2013. 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.

### Improving Safety for Employees Sent to Dangerous Regions

Responding to the hostage incident in Algeria in January 2013, President Hiroaki Nakanishi reinforced his policy in February 2013 of ensuring the safety of employees sent outside Japan. 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 2014, survey missions were sent to several countries in Africa and the Middle East. In addition, we have introduced a range of safety measures in the light of recent terrorist incidents involving Japanese and other nationals, including providing timely alerts to employees. These and other steps underscore 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, and in June 2014 Hitachi took part in a public-private kidnap incident preparatory training exercise.

## Compliance

### Hitachi's Approach

**As a global company, upholding the laws and regulations of the countries and regions where we do business is a basic premise of our operations. We have enhanced our compliance framework by appointing an executive officer to oversee the implementation of risk management initiatives Group-wide and by putting top executives at key Group companies in charge of handling risk management.**

**We also promote sincere and fair business practices by bolstering measures against bribery and other corrupt practices, upholding fair competition laws, pursuing greater information security, and deepening compliance knowledge and awareness among Hitachi Group companies worldwide.**

#### Our Actions in Fiscal 2014

We are strengthening compliance and information security initiatives, such as holding the Compliance Management Conference and the Hitachi Group Compliance Conference as well as establishing the Advisory Committee and the Information Security Promotion Council. We also hold Group-wide education and training sessions to build employee awareness of the Hitachi Group Codes of Conduct, fair competition laws, export control policies, and information security.

- Over 250,000 copies of the *Hitachi Group Codes of Conduct Handbook* distributed to employees at Group companies in Japan (as of March 2015).
- Group education sessions on the Japanese Antimonopoly Law held for all Hitachi, Ltd. sales managers.
- E-learning programs on export control basics and US re-export controls introduced and taken by around 22,000 employees at 106 Group companies worldwide.
- E-learning programs held on information security and personal information protection; information security and personal information protection audits conducted at all Group companies and business units.

### Implementing Our Compliance Framework

Frameworks >>

#### Enhancing Our Compliance Framework

To comprehensively implement our compliance framework, we have appointed a senior executive as the head of risk management for the entire Hitachi Group. Every in-house company and key Group company also has an executive handling risk management, assisted by a compliance manager (CM).

Under this system, policies and measures are shared through the Compliance Management Conference, composed of risk management executives from in-house companies and key Group companies. In addition, all CMs meet regularly at the Hitachi Group Compliance Conference to provide information on compliance and to confirm implementation of required actions.

Core Policy >>

Hitachi Group  
Codes of Conduct

Key Approaches >>

Key Approaches >>

The Advisory Committee, consisting of outside experts, convenes regularly to exchange views on the state of compliance initiatives. The insights provided by committee members are utilized to improve policies and actions.

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.

### Ensuring Awareness of the Hitachi Group Codes of Conduct

Hitachi, Ltd. formulated the Hitachi Group Codes of Conduct as a common conduct code for the Hitachi Group in fiscal 2010. We issued the *Hitachi Group Codes of Conduct Handbook* in fiscal 2011 as a guidebook for all employees; as of March 2015, more than 250,000 copies have been distributed to employees in Japan. We ask managers to submit a written pledge to comply with the Hitachi Group Codes of Conduct. To deepen awareness of the codes throughout our global operations, we have produced English and Chinese versions of a Japanese-language e-learning tool showing appropriate behavior and presenting specific examples for use in Hitachi Group companies within and outside Japan. We also conduct compliance training that includes Group companies outside Japan.

### 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 Hitachi employees but also by former employees, temporary staff, and suppliers. In addition, we have implemented the Channel to the Board of Directors system to allow employees to directly report problems anonymously to Hitachi directors. 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 appropriately deal with situations, including taking remedial action where necessary.

### Preventing Bribery and Corrupt Practices

To deal with global bribery and corruption risks, in fiscal 2013 we referred to the *US Foreign Corrupt Practices Act Resource Guide*\*<sup>1</sup> and other documents to develop various corruption risk scenarios. These were used as the basis for a survey conducted at Hitachi Group companies outside Japan. By analyzing the survey results, we identified several companies at risk from corruption. We are monitoring and working with those companies with the goal of reducing corruption worldwide.

\*<sup>1</sup> The US Foreign Corrupt Practices Act consists of antibribery provisions regarding foreign government officials and transparent accounting provisions within the Securities Exchange Act. Enforced by the Department of Justice, it prohibits bribes to foreign government officials. Transparent accounting, enforced by the Securities and Exchange Commission, requires companies to show transactions fairly and accurately in their accounting records and to maintain effective internal control over accounting.

Key Approaches >>

### 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 disciplined competition. However, Hitachi, Ltd. was found to have impaired the fairness of a public bid in fiscal 2002 and was penalized in September 2006, October 2008, and March 2009 for violating the Japanese Antimonopoly Law.

In November 2012, a subsidiary dealing in automotive components was penalized by the Japan Fair Trade Commission for violating the Antimonopoly Law. In September 2013, the same company was prosecuted by the US Department of Justice for violating American antitrust laws, resulting in a plea bargain.

We are working to prevent further violations and to broaden awareness of compliance issues, including publicizing messages from top executives, developing company regulations, conducting regular audits, and providing education and training to employees based on a compliance manual. In fiscal 2014, we held group education sessions on the Antimonopoly Law for all Hitachi sales managers, with 957 taking part.

Through these initiatives we will continue working to improve and enhance our compliance framework.

Key Approaches >>

### Prevention of Antisocial Transactions

To cut off all relationships with organized crime groups and other antisocial forces, we observe the following three provisions laid out in the Hitachi Group Codes of Conduct:

1. We will have no relations whatsoever with antisocial forces such as organized crime groups, and we will never engage in antisocial transactions under any circumstances.
2. We will prevent antisocial transactions through self-inspection of our transactions.
3. We will oppose antisocial forces such as organized crime groups with firm resolve, and refuse any improper demands.

The entire Hitachi Group acts decisively to eliminate approaches from antisocial forces in partnership with, where necessary, the police, external specialist institutions (the National Center for the Elimination of Boryokudan and Tokuboren, the Federation on Special Organized Crimes Within Jurisdiction of the Metropolitan Police Department), and lawyers. We include an organized crime elimination clause in contracts so that if it is determined that a business partner belongs to an antisocial group, we can void the contract and break off the relationship.

Key Approaches >>

### Thorough Export Controls

For basic export control policies, we adopt the Hitachi Standards of Corporate Conduct,\*<sup>1</sup> which state: "We shall help maintain international peace and security through compliance with trade-related laws and regulations." We established the Corporate Regulations concerning Security Export Control based on this policy in 1987. We carry out strict export control practices according to laws and regulations, screening all goods and technologies intended for export for such factors as destination countries and regions as well as intended end use and end users. We provide guidance and educational support to Hitachi Group companies to ensure that all Group companies follow the same export control policies. In fiscal 2014, we held workshops for Group companies in the United States, Europe, and China and other Asian countries providing practical training on export control. E-learning programs on export control basics and US re-export controls were introduced and taken by around 22,000 employees at 106 Group companies worldwide.

\*<sup>1</sup> Hitachi Standards of Corporate Conduct: Created by Hitachi, Ltd. to ensure full awareness of Hitachi's mission and role and to enable Hitachi to continue to grow as a truly global enterprise.

### Promoting Information Security

Policies and Frameworks >>

#### Implementing Rigorous Information Security

The Information Security Committee, chaired by the Chief Information Security Officer, determines our information security policies and procedures. 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:

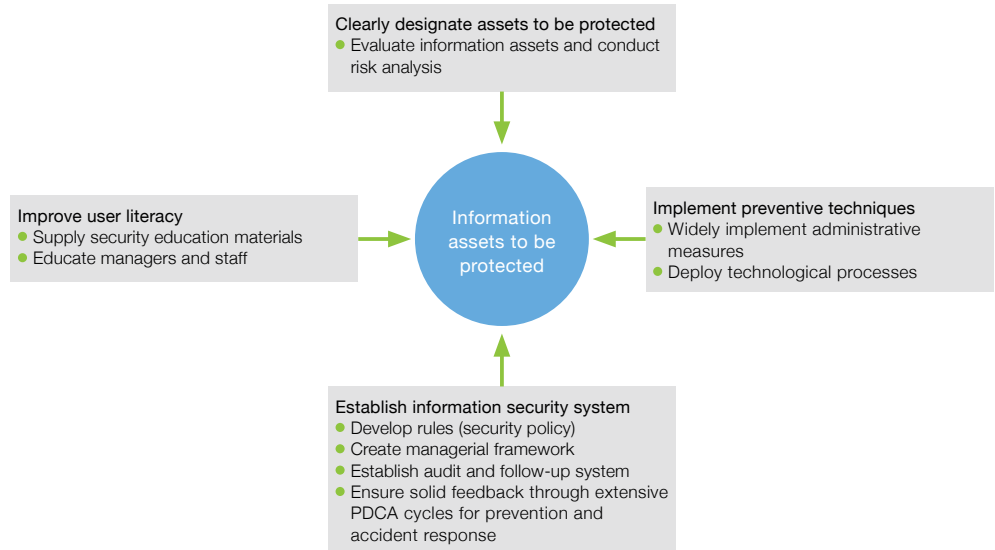
##### 1 Precautionary measures and prompt security responses

We classify assets to be secured and take safeguarding measures based on vulnerability and risk analyses. We also have an emergency 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.

## Basic Approach to Information Security Governance



Policies and Frameworks >>

Personal Information Protection Policy 



## 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, e-learning programs for all employees, and periodic audits, we are ensuring protection of personal information throughout the company.

### 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 five subsequent times, most recently in March 2015. The entire Hitachi Group is committed to personal information protection, with 61 Hitachi Group companies in Japan having received the Privacy Mark as of May 2015. In July 2009, the Corporate Hospital Group in Japan also gained Privacy Mark certification. This group is working hard to protect and carefully handle the personal information of its patients and others. Hitachi also strives to safeguard personal information globally at Group companies outside Japan based on the Personal Information Protection Policy and by adhering to all applicable laws and regulations, including social requirements.

\*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.

## 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 incidents involving it. 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.

Hitachi Group companies 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 cyber attacks, 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 standard. 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.

Key Approaches >>

**Education on Information Security**

Consistently maintaining information security requires all parties 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 provide specific additional training, with clear goals, that is geared to new employees and managers, and to information system administrators in particular. In 2012, we also began simulation training to educate employees about the increasing trend toward 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 overseas, provide Group-wide education on information security and personal information protection.

Key Approaches >>

**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 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. Hitachi Group companies in Japan 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 with respect to approximately 420 operations that handle important personal information. This regular control mechanism ensures ample safety management and implementation.



## Governance Engagement

### Engagement Highlight

#### Campaign for Corporate Ethics and Compliance Month

Corporate ethics and compliance are the bedrock of all our activities. To cultivate and enhance awareness of corporate ethics we have since fiscal 2009 designated October as Ethics and Compliance Month throughout the Hitachi Group.

The CEO of Hitachi, Ltd. shares messages with employees during this period, which serves as an important opportunity to reexamine the importance of corporate ethics. We have also created and put up on our intranet a set of case studies for workplace discussions on issues relevant to particular workplaces. All of these case studies match chapters in the *Hitachi Group Codes of Conduct Handbook* and have been translated into English and Chinese for use in our global operations. In addition, company-based activities such as lectures, presentations of satirical *senryu* poems, and the display of themed posters are being used to instill and foster awareness of corporate ethics among employees.

### In Focus

#### Optimal Social Innovation and Governance as a Global Company

As a major global player, Hitachi is focused on implementing an “autonomous decentralized global management” system to accelerate growth and play a role in providing regionally appropriate solutions to issues around the world. To place responsibility for regional business operations more solidly in the hands of each individual region, we have appointed Chief Executives to serve as control towers in the four global regions of the Americas, China, Asia-Pacific, and EMEA/CIS, as well as Japan. Around the world we are building innovative and lasting relationships with stakeholders to quickly and accurately identify needs of communities and customers in each region and to provide services and solutions that leverage our strengths in close coordination with our customers.

At the same time, Hitachi is promoting uniform global operations to enable the efficient use of management resources in such areas as R&D, procurement, brand strategies, human capital development, accounting systems, and thorough compliance. In this way, we will provide optimal innovations at the highest level and establish governance as a global company.



# PERFORMANCE DATA & ASSURANCE

## Contents

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## List of Key Indicators

The Key Indicators reported in the *Hitachi Group Sustainability Report 2015* are listed below. Comparative tables with the GRI Content Index, as well as our Policy, Vision, and Guidelines, are only available on our website.

Comparative Tables with  
GRI Content Index

Policy, Vision, and Guidelines

### Foundation for Promoting CSR Management

	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
<b>Research and Development</b>					
Ratio of R&D Efficiency (ROI)	1.13	1.00	1.24	1.52	<b>1.79</b>
Ratio of R&D Expenditures to Revenues	4.2	4.3	3.8	3.7	<b>3.4</b>
Number of R&D Staff outside Japan	150	150	—	290	<b>300</b>
<b>Intellectual Property</b>					
Patent Application Ratios outside Japan	51	55	57	59	<b>59</b>

#### Scope of Data

Hitachi, Ltd. and consolidated subsidiaries (including variable interest entities)

Number of companies: FY 2010: 914; FY 2011: 940; FY 2012: 964; FY 2013: 948;

FY 2014: 996

### Environment

	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
<b>Environmentally Conscious Products and Services</b>					
Eco-Product Sales Ratio	—	80	84	89	<b>93</b>
Eco-Product Sales Ratio Contributions to CO <sub>2</sub> Emission Reduction (million tonnes)	15.51	19.04	22.74	27.47	<b>32.19</b>
<b>Environmentally Conscious Production</b>					
CO <sub>2</sub> Emissions (kt CO <sub>2</sub> )	4,154	3,447	3,453	3,355	<b>3,311</b>
Waste and Valuables Generation (kt)	738	701	655	677	<b>692</b>
Water Use (outside Japan) (million m <sup>3</sup> )	16.40	8.91	9.88	7.37	<b>7.17</b>
VOC Atmospheric Emissions (t)	3,653	4,285	4,127	4,216	<b>4,415</b>

#### Scope of Data

For data on environmentally conscious products: Hitachi, Ltd., and consolidated subsidiaries (including variable interest entities)

Number of companies: FY 2010: 914; FY 2011: 940; FY 2012: 964; FY 2013: 948;

FY 2014: 996

Environmental performance data associated with Hitachi's business operations: Hitachi Group companies whose environmental load comprises 90% of the total (based on Hitachi calculations); data for each fiscal year indicates performance within the given scope for the fiscal year

List of Key Indicators

**Social** ✓

	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
<b>Social Contribution Activities</b>					
Funding for Social Contribution Activities*1 (million yen)	1,607	—	—	1,806	<b>1,218</b>
Funding for Social Contribution Activities*2 (million yen)	—	3,471	3,284	3,076	<b>2,327</b>
<b>Supply Chain Management</b>					
Number of CSR Monitoring (Self-Checks)	—	102	98	100	<b>200</b>
Number of Audits by External Auditing Organizations	—	—	12	16	<b>20</b>
<b>Diversity Management</b>					
Ratio of Male and Female Employees*3	84:16	84:16	84:16	83:17	<b>84:16</b>
Number and Global Ratio of Female Managers	—	—	—	3,415 (5.6)	<b>3,670 (6.0)</b>
Disabled Employment Ratio*3	2.05	2.00	2.02	2.02	<b>2.03</b>
<b>Global Human Capital Development*3</b>					
Number of Non-Japanese Employees	230	239	257	340	<b>446</b>
Number of Young Employees Participating in Training outside Japan*4	—	1,064	1,202	747	<b>720</b>
<b>Occupational Health and Safety*5</b>					
Occupational Accident Rate*6	0.07	0.10	0.14	0.10	<b>0.09</b>
Occupational Accident Rate*7	0.20	0.15	0.19	0.14	<b>0.27</b>

**Scope of Data**

\*1 Hitachi, Ltd., and five foundations in Japan

\*2 Japan: Hitachi, Ltd., and Group companies (including variable interest entities): 137 companies and five foundations  
Outside Japan: 199 Group Companies

\*3 Hitachi, Ltd.

\*4 Hitachi, Ltd., and Group companies in Japan

\*5 January to December each year

\*6 Hitachi, Ltd.

\*7 90 major Hitachi Group companies in Japan including Hitachi, Ltd., through to 2011; 175 major Hitachi Group companies in Japan including Hitachi, Ltd., for 2012; 195 major Hitachi Group companies in Japan including Hitachi, Ltd., for 2013; 251 major Hitachi Group companies in Japan including Hitachi, Ltd., for 2014

## Overview of Financial Results, Board Members, and Employee Data

An overview of the Financial results (consolidated), board member and employee data are listed below. Most data are Hitachi, Ltd. figures.

### Financial Results (Consolidated)

	(billion yen)				
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
Revenues	9,315.8	9,665.8	9,041.0	9,616.2	<b>9,761.9</b>
Operating Income	444.5	412.2	422.0	532.8	<b>600.4</b>
EBIT* <sup>1</sup>	443.8	573.2	358.0	585.6	<b>551.0</b>
Income before Income Taxes	432.2	557.7	344.5	573.6	<b>535.6</b>
Capital Investment (completion basis)	556.8	649.2	742.5	849.8	<b>374.3</b>
R&D Spending	395.1	412.5	341.3	351.4	<b>335.5</b>
Net Income Attributable to Hitachi, Ltd. Stockholders	238.8	347.1	175.3	264.9	<b>241.3</b>

\*1 EBIT: Defined income before income tax less interest income changes


### Board Members

	Total	Gender		Nationality	
		Male	Female	Japan	Outside Japan
Directors* <sup>1</sup>	<b>11</b>	<b>9</b>	<b>2</b> <sup>2</sup>	<b>7</b>	<b>4</b>
Executive Officers* <sup>1</sup>	<b>31</b>	<b>31</b>	<b>0</b>	<b>29</b>	<b>2</b>

\*1 As of June 2015

\*2 External directors (two from outside Japan)

### Composition of Employees

	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
Number of Employees* <sup>1</sup>	31,243	32,908	33,665	33,500	<b>31,375</b>
Male	26,399	27,805	28,437	28,273	<b>26,428</b>
Female	4,844	5,103	5,228	5,227	<b>4,947</b>
Ratio of Female Employees	16.0	15.9	16.0	16.6	<b>16.3</b>
Average Age (years)	39.9	40.0	40.2	40.7	<b>41.0</b>
Male	40.6	40.6	40.8	41.3	<b>41.6</b>
Female	36.3	36.8	37.1	37.6	<b>38.0</b>
Average Service (years)	17.9	17.9	18.0	18.3	<b>18.4</b>
Male	18.6	18.6	18.7	19.0	<b>19.0</b>
Female	14.0	14.2	14.5	15.0	<b>15.4</b>
Number and Ratio of Female Managers* <sup>2</sup> 	386 (3.3)	377 (3.4)	401 (3.5)	418 (3.8)	<b>434 (3.7)</b>
General Manager or Above	—	54 (1.9)	68 (2.3)	77 (2.7)	<b>87 (2.8)</b>
Section Chief	—	323 (4.0)	333 (4.0)	341 (4.3)	<b>347 (4.1)</b>
Employment Ratio of People with Disabilities	2.05	2.00	2.02	2.02	<b>2.03</b>

\*1 Number of full-time employees

\*2 See List of Key Indicators for Group global figures

Overview of Financial Results, Board Members, and Employee Data

## Hiring Ratios

	April 2011	April 2012	April 2013	April 2014	April 2015
Ratio of New Female Graduates Hired*1	18.3	20.3	18.0	19.4	21.7
Technical	13.5	14.7	11.6	14.7	18.3
Administrative	39.3	43.9	43.4	43.4	41.0

\*1 Graduates from universities or colleges (including postgraduate schools and technical colleges)

## Number of Employees Using Work-Life Balance Support Systems

	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
Number of Employees Taking Child Care Leave/ Spouse Child Care Leave					
Female	525	518	525	539	508
Male	173	224	245	238	236
Number of Employees Using Shorter Working Hours for Child Care					
Female	528	608	617	683	663
Male	3	6	8	5	4
Number of Employees Taking Nursing Care Leave					
Female	7	6	10	8	8
Male	3	6	7	12	9
Number of Employees Using Reduced Working Hours for Nursing Care					
Female	7	6	7	4	7
Male	1	2	3	2	3

## Working Conditions

	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
Paid Leave					
Average Number of Days	16.1	15.9	15.3	15.5	15.4
Ratio	66.4	66.8	64.0	64.7	64.3
Average Overtime Hours/Month	12.3	12.8	14.1	13.5	12.2
Occupational Health and Safety					
Number of Fatal Accidents	1	1	3	1	1

## Social Contribution Activities

	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
Social Contribution Activities					
Number of Voluntary Social Contribution Programs	32	32	34	43	39
Participants in Voluntary Social Contribution Programs	2,567	2,087	2,479	2,744	2,344

## Main Assessments and Awards

**Hitachi actively pursues a range of CSR activities aimed at developing a more sustainable society. These activities have earned the Hitachi Group high marks from numerous external organizations.**

### Actively Courting Socially Responsible Investment

The Hitachi Group welcomes external assessments as a target for socially responsible investment (SRI)\*<sup>1</sup> and sustainability-oriented investment. For six years in a row since fiscal 2009, the Dow Jones Sustainability World Index (DJSI World),\*<sup>2</sup> a leading global sustainability investment index, has listed Hitachi, Ltd. as a component stock. RobecoSAM, which handles survey and analysis for the DJSI listings, also gave its Bronze Class and Industry Mover designations to Hitachi, Ltd. in its 2014 CSR rankings. Four Group companies, including Hitachi Chemical Co., Ltd. and Hitachi Capital Corp., were selected for the FTSE4Good Index Series.\*<sup>3</sup> Five Group companies, including Hitachi Construction Machinery Co., Ltd. and Hitachi High-Technologies Corp., were chosen for the Morningstar SRI Index,\*<sup>4</sup> with the Group performing well overall in these external assessments. Hitachi Chemical was also selected for the MSCI Global Sustainability Indexes.\*<sup>5</sup>

\*1 SRI: Investment in which funds evaluate companies and select stocks from a CSR perspective.

\*2 DJSI: A family of SRI 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 FTSE4Good Index Series: One of the indexes calculated by the London Stock Exchange-owned FTSE Group that selects component stocks based on their environmental, social, and governance (ESG) performance, specifically environmental management, climate change mitigation, human rights and workers' rights, supply chain labor standards, bribery and corruption prevention, and corporate governance.

\*4 Morningstar SRI Index: An SRI index for Japanese stocks developed by Morningstar Japan K.K. with the Center for Public Resources Development.

\*5 MSCI Global Sustainability Indexes: A family of indexes developed by US-based Morgan Stanley Capital International comprising companies with high ESG ratings relative to sector peers.

### Results of SRI Assessments in Fiscal 2014

Institution	Index	Companies selected
RobecoSAM	Dow Jones Sustainability World Index	● Hitachi, Ltd.
	Dow Jones Sustainability Asia Pacific Index	● Hitachi, Ltd. ● Hitachi Chemical Co., Ltd.
FTSE Group	FTSE4Good Index Series	● Hitachi Chemical Co., Ltd. ● Hitachi Capital Corp. ● Hitachi Construction Machinery Co., Ltd. ● Hitachi High-Technologies Corp.
Morningstar	SRI Index	● Hitachi, Ltd. ● Hitachi Chemical Co., Ltd. ● Hitachi Construction Machinery Co., Ltd. ● Hitachi High-Technologies Corp. ● Hitachi Kokusai Electric Inc.
MSCI	MSCI Global Sustainability Indexes	● Hitachi Chemical Co., Ltd.





### Selection for the Climate Performance Leadership Index 2014

Hitachi's efforts to curb greenhouse gas emissions and mitigate the risk of climate change have won high praise from the nonprofit organization CDP,\*<sup>1</sup> which selected Hitachi for its 2014 Climate Performance Leadership Index (CPLI).

\*<sup>1</sup> The CDP is an international NPO based in London that provides a global system used to gauge, disclose, manage, and share key environmental information on companies and cities. On behalf of 767 investors, representing US\$92 trillion in assets, the CDP sends a survey on climate change to corporations and then evaluates the results. In 2013, the organization shortened its name from the Carbon Disclosure Project to CDP.



### Nadeshiko Brand Designation

On March 18, 2015, Hitachi, Ltd. was selected as a 2015 Nadeshiko Brand, making it the second year in a row the company received the honor. Hitachi was recognized for developing environments where women in management positions are able to maximize their potential.

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 from among those listed on the first section of the TSE that are considered to encourage women to play active roles in the workplace, including the development of environments where women are able to further their careers. Companies are assessed on two factors: providing career support for women and supporting women in balancing work and life. Of the top scoring companies, those also meeting return on equity requirements receive the Nadeshiko Brand designation. Hitachi, Ltd. was one of 40 enterprises chosen in fiscal 2014, the third round of selections.



### Diversity Management Selection 100

On March 22, 2013, Japan's Ministry of Economy, Trade, and Industry (METI) held a ceremony to celebrate Diversity Management Selection 100. Hitachi, Ltd. was one of 43 companies receiving awards in Japan. The Diversity Management Selection 100 system chooses and recognizes companies that achieve 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.

On March 18, 2015, Hitachi Group companies Hitachi Transport System, Ltd. and Hitachi Solutions, Ltd. were chosen also for the Diversity Management Selection 100.





### Kurumin Certification

Kurumin certification is granted under Japan's 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, we acquired this certification\*1 in recognition of our achievements in developing and implementing action plans supporting child care so that our employees can work with the peace of mind that comes from a good work-life balance.

\*1 Hitachi Group companies receiving Kurumin certification: Hitachi Construction Machinery, Hitachi Kokusai Electric, Hitachi High-Technologies, Hitachi Transport System, Hitachi Systems, Hitachi Maxell, Hitachi SC, Hitachi Solutions East Japan, Hitachi INS Software, Hitachi Government & Public Sector Systems, Hitachi Architects & Engineers, and Hitachi Aloka Medical.

### Chairman Emeritus Awarded Prime Minister's Commendation



The ceremony for the Prime Minister's Commendation for Efforts Toward the Formation of a Gender-Equal Society.

On June 27, 2014, Chairman Emeritus Takashi Kawamura received the Prime Minister's Commendation for Efforts Toward the Formation of a Gender-Equal Society, an award for efforts including supporting active roles for women in the workplace.


The award is presented by the Prime Minister of Japan to organizations in recognition of their efforts toward realizing a gender-equal society. As Hitachi President and Chairman, Kawamura promoted diversity management as a corporate strategy Group-wide to improve innovation and productivity by utilizing employee diversity, boosting the awareness of all employees, and changing the mindsets of people in the workplace. Through Kawamura's role as vice chair at the Japan Business Federation (Keidanren), these initiatives went beyond Hitachi to benefit the greater business community.

On behalf of Prime Minister Shinzo Abe, Chief Cabinet Secretary Yoshihide Suga presented the commendation to Kawamura and 11 other recipients at a ceremony at the Cabinet Office in Tokyo.

## Third-Party Assurance and Verification

**To enhance the reliability of the data disclosed in the *Hitachi Group Sustainability Report 2015*, we have received third-party assurance and verification.**

### Social and Governance Sections


The key indicators and data in the Social (pp. 113-169) and Governance (pp. 170-184) report sections have received reviews by KPMG AZSA Sustainability Co., Ltd. The key indicators and data that were subject to this review are marked with a .

### Third-Party Assurance Report on Social and Governance Sections



#### Independent Assurance Report

To the President of Hitachi, Ltd.

We were engaged by Hitachi, Ltd. (the "Company") to undertake a limited assurance engagement of the social performance indicators marked with  for the period from April 1, 2014 to March 31, 2015 (the "Indicators") included in its Hitachi Group Sustainability Report 2015 (the "Report") for the fiscal year ended March 31, 2015.

#### 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, which are derived, among others, from the G4 Sustainability Reporting Guidelines of the Global Reporting Initiative.

#### 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 'International Standard on Assurance Engagements (ISAE) 3000, Assurance Engagements other than Audits or Reviews of Historical Financial Information', issued by the International Auditing and Assurance Standards Board, and the 'Practical Guidelines for the Assurance of Sustainability Information' of the Japanese Association of Assurance Organizations for Sustainability Information. 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 with the Company's responsible personnel to obtain an understanding of its policy for the preparation of 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 reviews of 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 also recalculating the Indicators.
- Evaluating the overall statement in which the Indicators are expressed.

#### 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  
July 31, 2015

Calculation methods for environmental load data 

## Environment Section

Regarding the fiscal 2014 results in the Environmental (pp. 64–112) report section, we have received verification from Bureau Veritas Japan Co., Ltd. The data that were subject to this verification are marked with a . The standards, guidelines, and calculation methods used in collecting data are posted on our website.

### Third-Party Verification Report on Environment Section

#### Hitachi Group Sustainability Report 2015 Independent Verification Report

To: Hitachi, Ltd.



July 17, 2015



Bureau Veritas Japan Co., Ltd.  
System Certification Services Headquarters

Bureau Veritas Japan Co., Ltd. (Bureau Veritas) has been engaged by Hitachi, Ltd. (Hitachi) to conduct an independent verification and review of its environmental data selected by Hitachi for inclusion in the Hitachi Group Sustainability Report 2015 (the Report), issued under the responsibility of Hitachi. The aim of the verification work is to evaluate the reliability and accuracy of environmental data within the Report based on objective evidence and to provide a limited assurance opinion in the form of an independent statement. The aim of the review work is to evaluate the quality of certain other environmental data within the Report in the interests of reporting improvement.

#### 1. Verification and Review Outline

##### Environmental load data generated through business operations in FY2014

Bureau Veritas conducted verification of energy consumption data and CO<sub>2</sub> emissions data from energy use associated with activities within Japan including transportation of goods, and conducted review of the energy consumption data and CO<sub>2</sub> emissions data from energy use associated with activities outside Japan.

Data verified or Reviewed	Site Visited	Verification or Review Methodology
90%(*1) of environmental load data generated through business operations of Hitachi, Ltd. and 995 consolidated subsidiaries (including variable interest entities to which the equity method of consolidated reporting applies): a total of 996 companies (*1) based on Hitachi calculations.	- Hitachi Head Office - Hitachi Appliances, Inc. Taga Works - Hitachi High-Technologies Corporation Naka Works - Hitachi Medical Corporation Kashiwa Works - Hitachi Koki Co., Ltd. Katsuta Works	- Review of documentary evidence produced by Hitachi Head Office and the sites visited - Interviews with relevant personnel of Hitachi Head Office and the sites visited - Site inspection about data monitoring procedure - Comparison between the reported data and the supporting documentary evidence

The verification was conducted using Bureau Veritas' standard procedures and guidelines for external verification of non-financial reporting, based on current best practice. Bureau Veritas refers to the International Standard on Assurance Engagements (ISAE) 3000 in providing a limited assurance for the scope of work stated herein.

#### 2. Findings

##### Environmental load data generated through business operations in FY2014

- Based on the verification work, the environmental load data stated in the Report is consistent with the data collected and consolidated by Hitachi Head Office.
- There is no evidence to suggest that there are any significant errors in the environmental load data reported to Hitachi Head Office by the sites visited.

Bureau Veritas has implemented a code of ethics across its business which is intended to ensure that all our staff maintain high standards in their day to day business activities. We are particularly vigilant in the prevention of conflicts of interest. Bureau Veritas activities for Hitachi are for sustainability reporting verification only and we believe our verification assignment did not raise any conflicts of interest.

## Greenhouse Gas Emissions Verification Statement

### GREENHOUSE GAS EMISSIONS VERIFICATION STATEMENT

To: Hitachi, Ltd.



BUREAU  
VERITAS

July 17, 2015



Bureau Veritas Japan Co., Ltd.  
System Certification Services Headquarters

Bureau Veritas Japan Co., Ltd. (Bureau Veritas) was engaged by Hitachi, Ltd. (Hitachi) to conduct independent verification of the greenhouse gas (GHG) emissions reported in the Hitachi Group Sustainability Report 2015 for the period of April 1, 2014 through March 31, 2015.

#### 1. Scope of Verification

Hitachi requested Bureau Veritas to verify the accuracy of the following GHG information, to a limited level of assurance:

##### 1) Scope 1 and Scope 2 emissions:

- CO<sub>2</sub> emissions from energy use within Japan through the Hitachi Group's business operations (\*1)
- (\*1) Companies that cover 90% of the Hitachi Group's total environmental load (based on Hitachi calculations) are included. Hitachi Group consists of Hitachi, Ltd. and 995 consolidated subsidiaries: a total of 996 companies.

##### 2) Scope 3 emissions:

- CO<sub>2</sub> emissions from transportation of goods within Japan only, that are associated with Hitachi's business operations

#### 2. Methodology

Bureau Veritas conducted the verification in accordance with the requirements of the international standard 'ISO 14064-3(2006): Greenhouse gases - Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions'.

As part of Bureau Veritas' assurance, the following activities were undertaken:

- Interviews with relevant personnel of Hitachi responsible for the identification and calculation of GHG emissions;
- Review of Hitachi's information systems and methodology for collection, aggregation, analysis and review of information used to determine GHG emissions; and
- Audit of a sample of source data to check accuracy of quantified GHG emissions.

#### 3. Conclusion

Based on the verification work and processes followed, there is no evidence to suggest that the GHG emissions assertions shown below:

- are not materially correct and are not a fair representation of the GHG emissions.
- are not prepared in accordance with the methodology for calculating GHG emissions established and implemented by Hitachi.

Verified greenhouse gas emissions		
Scope 1	Scope 2	Scope 3
538,000 t-CO <sub>2</sub> e	1,679,000 t-CO <sub>2</sub> e	115,000 t-CO <sub>2</sub> e

#### [Statement of independence, impartiality and competence]

Bureau Veritas is an independent professional services company that specializes in Quality, Health, Safety, Social and Environmental management with over 180 years history in providing independent assurance services. No member of the verification team has a business relationship with Hitachi, its Directors or Managers beyond that required of this assignment. We conducted this verification independently and to our knowledge there has been no conflict of interest. Bureau Veritas has implemented a Code of Ethics across the business to maintain high ethical standards among staff in their day-to-day business activities. The verification team has extensive experience in conducting assurance over environmental, social, ethical and health and safety information, systems and processes, has an excellent understanding of Bureau Veritas standard methodology for the verification of greenhouse gas emissions data.

Inquiries

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