

# Hitachi Group Sustainability Report 2012

VALUE CREATION FOR A SUSTAINABLE SOCIETY



Hitachi Group Sustainability Report 2012

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### Symbol Marks Used in This Booklet

- Technical terms, proper nouns, etc., in the text requiring explanation
   Additional explanation of terms, etc., in tables or diagrams
- WEB Indicates the title and URL of the web page related to the article. The Environmental Report (pages 049–084) can be downloaded as a file from the website below http://www.hitachi.com/environment/data/

# Sustainability Report Editorial Policy

### **Basic Concept**

The Hitachi Group Sustainability Report 2012 presents basic policies, promotion systems, measures, and key performance indicators on each initiative in keeping with reporting guidelines. This approach maintains honest and transparent disclosure of information regarding fiscal 2011 initiatives and Hitachi's stance in addressing social and environmental issues that are vital to the sustainability of corporate management and society.

### Key Guidelines Referred to in Preparing this Report

"Environmental Reporting Guidelines (FY 2012 version)," Ministry of the Environment, Japan "Environmental Reporting Guidelines 2001 – With Focus on Stakeholders," Ministry of Economy, Trade and Industry, Japan "GRI Sustainability Reporting Guidelines (G3.1)," Global Reporting Initiatives "ISO 26000: 2010," International Organization for Standardization

#### Scope of Reporting

[Period] The main period covered is fiscal 2011 (April 1, 2011 to March 31, 2012) [Companies] Hitachi, Ltd. and 939 consolidated subsidiaries (including modified entities to which the equity method of consolidated reporting applies): total 940 companies [Scope of data]

Financial data Hitachi, Ltd. and 939 consolidated subsidiaries (including modified entities to which the equity method of consolidated reporting applies): total 940 companies and 183 affiliated companies that use the equity method Social data Scope of data indicated under each item

Environmental data Hitachi, Ltd. and 939 consolidated subsidiaries (including modified entities to which the equity method of consolidated reporting applies): total 940 companies. However, for environmental load data generated through business operations, companies that cover 90% of the load (based on Hitachi calculations) are included. • The data for each fiscal year indicates the results according to the scope of data in that fiscal year.

• The base fiscal year data has been revised in accordance with the scope of data for fiscal 2011.

### **Disclosure of Financial and Non-Financial Information**

Hitachi Ltd., referring closely to deliberations of the EU and International Integrated Reporting Consortium (IIRC) about non-financial disclosure. presents information to match the needs of stakeholders reading this report. While financial information is in the Annual Report 2012, the Hitachi Group Sustainability Report 2012 presents non-financial information and clarifies how sustainability issues relate to financial activities. Up-to-date information is available on the Hitachi Group's website.



Hitachi Group Sustainability Report 2012



WEB CSR (Corporate Social



WEB Environmental Activities http://www.hitachi.com/environment/ index.html

# Activities (Social Contribution Activities) http://www.hitachi.com/csr/sc/index.html

# **Financial Information Reports**

**Non-Financial Information Reports** 





WEB Investor Relations http://www.hitachi.com/IR-e/index.html

WEB Global Community Relations and

Note: We also disclose financial information on Hitachi. Ltd. in the Report on the 143rd Business Term and the Annual Securities Report

### **Third-Party Assessments**

To enhance the credibility of this report, we commissioned third-party assessments of environmental, management, and social performances in fiscal 2011. Bureau Veritas Japan Co., Ltd. assessed environmental performance. Ernst & Young Sustainability Co., Ltd., verified management and social performance based on International Standard on Assurance Engagement (ISAE) 3000.

### **External Evaluations**

We were selected in September 2011 for the Dow Jones Sustainability World Indexes (DJSI World), one of the world's leading sustainability investment fund indexes. We were also awarded the Silver Class in the Sustainable Asset Management (SAM) Sustainability Yearbook 2012 (January 2012 issue).



Received Excellent Award of the 15th Sustainability Report Award

### Initiatives That We Participate in

We have been a member of the United Nations Global Compact since February 2009



We have been a member of the World Business Council for Sustainable Development (WBCSD) since 1995.



### **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. We published the Hitachi Group Sustainability Report 2012, which emphasizes comprehensiveness and searchability of information based on management transparency, as a PDF file (A4, 149 pages) and the Hitachi Group Sustainability Report 2012 Digest, a summary of policies, areas of special social interest, and reports on key management issues, as a booklet (A4, 24 pages). Our website also reports on detailed activity, as well as news releases and other up-to-date information.





Reports on Detailed Activities Hitachi Group Sustainability Report

Sustainability Report Editorial Policy Hitachi Group Profile Top Commitment

### Hitachi's Management Strategies and CSR

2012 Mid-Term Management Plan / 2012 Mid-Term Management Plan Key Management Policies and Related CSR Activities / Material Issues for Hitachi

# FEATURE

Relationships Drive a Sustainable Society — Lessons from the Great East Japan Earthquake

### **Management Report**

Message from the Executive Officer for Management Audits / Corporate Governance / CSR Management / Risk Management / Compliance / Innovation Management / Intellectual Property / Brand Management

### **Environmental Report**

Message from the Executive Officer for Environmental Strategy / Environmental Activities Worldwide / Corporate Environmental Management Strategies and Initiatives / Environmentally Conscious Products and Services / Environmentally Conscious Production / Environmental Management Framework and Communication

### **Social Report**

Message from Executive Officer for Procurement / Message from Executive Officer for Human Capital Group / Respect for Human Rights / Supply Chain Management / Diversity Management / Public Policy Initiatives / Quality Assurance and Customer Satisfaction / Communication with Shareholders and Investors / Employee Health and Safety / Global Human Capital Development / Social Contribution Activities

Comparative Table with GRI Guidelines / Comparative Table with ISO 26000 Core Subjects / Comparative Table with the UN Global Compact / Policy, Vision, and Guidelines / Major Results Data / Independent Assurance



### Reports on Material Issues Hitachi Group Sustainability Report Digest

Hitachi Group Profile Top Commitment Management Strategies and CSR

### FEATURE

Relationships Drive a Sustainable Society — Lessons from the Great East Japan Earthquake

Caring for the Environment / Respect for Human Rights / Supply Chain Management / Diversity Management and Human Capital Strategy / Public Policy Initiatives



### Latest information Major CSR (Corporate Social Responsibility) Content on the Website

The CSR website has a full PDF version with details on our activities and the following content. The Environmental Activities website reports on environmental protection initiatives. The Global Community Relations and Activities website discloses social contribution activities.

## Contents Disclosed in Full Solely on the Website

Hitachi's CSR Principles: Vision and Policies Highlights: Spotlighting 2005 through 2011 Innovation management Quality assurance activities Employee health and safety Welfare Supplementary data for Environmental Report

# **Hitachi Group Profile**

# Company Profile (as of March 31, 2012)

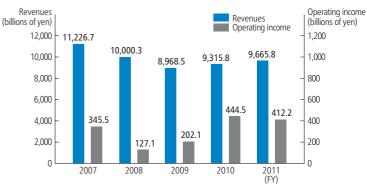
Corporate Name	Hitachi, Ltd.
Incorporated	February 1, 1920 (founded in 1910)
Head Office	1-6-6 Marunouchi, Chiyoda-ku,
	Tokyo 100-8280, Japan
Representative	Hiroaki Nakanishi, Representative
	Executive Officer and President

Capital427,775 million yenNumber of employees (unconsolidated basis)32,908Number of employees (consolidated basis)323,540Number of consolidated subsidiaries939(Japan: 340, outside of Japan: 599)Number of equity-method affiliates183(Japan: 78, outside of Japan: 105)

# **Consolidated Business Overview and Results for Fiscal 2011**

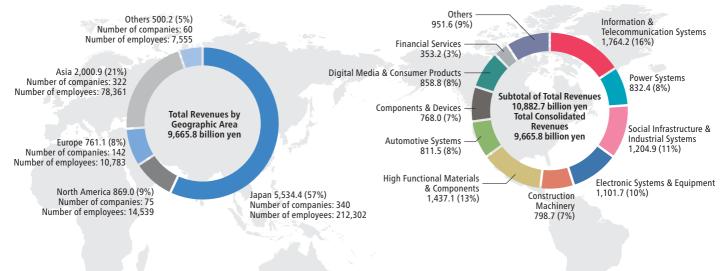
Revenues	9,665.8 billion yen (up 4% year-over-year)			
Operating inco	me	412.2 billion yen (down 7%)		
Capital investm	ent	649.2 billion yen (up 17%)		
R&D expenditures		412.5 billion yen (up 4%)		
Overseas output as a percentage				
of consolidated	l net sales	26%		





### Revenues by Geographic Area (billions of yen)

### **Revenues by Industry Segment (billions of yen)**



#### Information & Telecommunication Systems

- System integration, outsourcing services, software, disk array subsystems, servers, mainframes, telecommunications equipment, ATMs
- Hitachi-Omron Terminal Solutions, Corp., Hitachi Computer Products (America), Inc., Hitachi Computer Products (Europe) S.A.S., Hitachi Information & Control Solutions, Ltd., Hitachi Solutions, Ltd., Hitachi Systems, Ltd., Hitachi Consulting Corporation, Hitachi Data Systems Corporation, Hitachi Information & Telecommunication Systems Global Holding Corporation



Enterprise storage platform\*

### **Power Systems**

- Thermal, nuclear, hydroelectric, and wind power generation systems
- Babcock-Hitachi K.K., Hitachi-GE Nuclear Energy, Ltd., Japan AE Power Systems Corporation, Hitachi Engineering & Services Co., Ltd., Hitachi Power Europe GmbH, Hitachi Power Systems America, Ltd.



Ultra supercritical pressure coalfired power plant\*

# Electronic Systems & Equipment

- Semiconductor and LCDs' manufacturing equipment, test and measurement equipment, medical electronics equipment, power tools, electronic parts processing equipment
- Hitachi High-Technologies Corporation, Hitachi Koki Co., Ltd., Hitachi Kokusai Electric Inc., Hitachi Medical Corporation, Hitachi Via Mechanics, Ltd.

### **High Functional Materials & Components**

- Wires and cables, copper products, semiconductor and display-related materials, circuit boards and materials, specialty steels, magnetic materials and components, high-grade casting components and materials
- Hitachi Cable, Ltd., Hitachi Chemical Co., Ltd., Hitachi Metals, Ltd.

#### **Components & Devices**

**Financial Services** 

Leasing, loan guarantees

Hitachi Capital Corporation

 Information storage media, batteries
 Hitachi Maxell, Ltd., Hitachi Maxell Energy, Ltd.



Hitachi High-Technologies' Field-Emission Scanning Electron Microscope



Hitachi Metals' NEOMAX neodymium sintered magnet



Hitachi Maxell Energy's prismatic lithium-ion rechargeable batteries featuring thin type and high capacity



Hitachi Capital's multifunctional IC card

# Social Infrastructure & Industrial Systems

- Industrial machinery and plants, elevators, escalators, railway vehicles and systems
- Hitachi Industrial Equipment Systems Co., Ltd., Hitachi Elevator (China) Co., Ltd., Hitachi Building Systems Co., Ltd., Hitachi Plant Technologies, Ltd.



Hitachi Plant Technologies' Reverse osmosis desalination system

#### **Construction Machinery**

- Hydraulic excavators, wheel loaders, mining dump trucks
- Hitachi Construction Machinery Co., Ltd.



Hitachi Construction Machinery's land mine removal excavator

#### **Automotive Systems**

- Engine management systems, electric powertrain systems, drive control systems, car information systems
- Clarion Co., Ltd., Hitachi Automotive systems, Ltd., Hitachi Automotive Systems Americas, Inc.

#### **Digital Media & Consumer Products**

- Optical disk drives, flat-panel TVs, LCD projectors, room air conditioners, refrigerators, washing machines, airconditioning equipment
- Hitachi Appliances, Inc., Hitachi Consumer Electronics Co., Ltd., Hitachi Media Electronics Co., Ltd., Hitachi Consumer Products (Thailand), Ltd., Hitachi-LG Data Storage, Inc.

### Others

 Logistics, property management
 Chuo Shoji, Ltd., Hitachi Life, Ltd., Hitachi Transport System, Ltd., Hitachi America, Ltd., Hitachi Asia Ltd., Hitachi (China) Ltd., Hitachi Europe Ltd., Hitachi India Pvt. Ltd.



Hitachi Automotive Systems' electrically controlled brake



Hitachi Appliances' Big Drum frontloading washer-dryer featuring heat recycling and air iron



Hitachi Transport System's Keihin Distribution Center

Major Products & Services Major Consolidated Subsidiaries (as of March 31, 2012). Products marked with an asterisk (\*) in the table above are those of Hitachi, Ltd. (Nates 1, 1, Hitachi Surtans, Ltd. and Hitachi Information Surtans, (4) and Hitachi Information Surtans.

- (Notes.) 1. Hitachi Systems, Ltd. was formed on October 1, 2011, through the merger of Hitachi Electronics Services Co., Ltd., and Hitachi Information Systems. 2. As of April 1, 2012, Japan AE Power Systems Corporation was dissolved, with power transmission and distribution operations transferring to the former joint venture's three
  - partners. 3. Hitachi Displays, Ltd., Hitachi Display Device (Suzhou) Co., Ltd., its consolidated subsidiary, and Viviti Technologies Ltd., which were part of the Component & Devices segment,
  - were removed from consolidation in March 2012 following share divestments. 4. Hitachi Maxell Energy, Ltd., took over the battery systems business of Hitachi Maxell, Ltd., following a company split as of April 1, 2011.
  - Intern Maxell Lifergy, Etc., cook over the battery systems business of Hitachi Maxell, Et
     Chuo Shoji, Ltd., was renamed Hitachi Urban Investment Ltd. as of April 1, 2012.
  - 6. As of April 1, 2012, the Company abolished the Component & Devices segment as part of a reclassification, integrating it with "Others" segment.

# Contributing to a Sustainable Society as a Good Corporate Citizen



# **Realizing a Sustainable Society**

In 2011 we faced many natural disasters, from the Great East Japan Earthquake to the flooding in Thailand and then the earthquakes in Turkey. Hitachi City in Ibaraki Prefecture (northeast of Tokyo), Hitachi's birthplace, was among the areas heavily impacted by the March 11 quake, and our operations were damaged by the Thai floods. Despite these setbacks, along with the accompanying disruption to our global supply chain, we achieved solid business results. Our consolidated fiscal 2011 statements showed record net income for the second consecutive year. I would like to again thank the many people who made this possible; we owe our success to all stakeholders. Through last year's experiences, we gained new awareness of the importance of partnerships. In an age of diverse values and rapid change, creating business with partners is a true driver of growth. By thinking deeply about what societies need and by cooperating with our partners, we aim for growth leading to a new stage. At the same time, we continue to foster mutual understanding with stakeholders around the world—customers, suppliers, and national governments, as well as NGOs and other policy and business influencers—as we help to resolve social issues throughout the world over the medium to long term.

# Finding the Best Energy Mix for a Safe, Secure Society

The Fukushima Daiichi Nuclear Power Plant accident stirred worldwide discussions about appropriate energy sources. A stable and sustainable energy supply is essential for building and maintaining a safe, secure society. To prevent global warming, we need to choose power sources that are ecoconscious and optimal for a sustainable society. Given these circumstances, I believe Hitachi must work to overcome problems, including population pressure and limited natural resources. We must also weigh the strengths and weaknesses of each technology and build a consensus in each country to find optimal power sources toward realizing the best energy mix. For this reason, and to find a stable energy supply, we propose a range of options, including nuclear, thermal, and renewable energy, while we innovate in ways that help to prevent global warming.

# Being a Good Global Corporate Citizen

Our business climate is changing: rapid globalization is leading to economic disparities all over the world; environmental issues such as climate change continue to be pressing; and awareness of the interplay between business and human rights is becoming much more important and relevant. The United Nations Conference on Sustainable Development (Rio+20)<sup>†</sup> has asked companies to make broad contributions to society, mainly through corporate activities, with an eye not only on the environment but on issues such as poverty alleviation and human rights.

Hitachi, since signing the United Nations Global Compact in 2009, has worked hard to become a global corporation with quality management. I believe that the essence of CSR is the quality of our management coupled with sustainable competitive strength. For Hitachi, CSR is the core of management because we must now work on social problems beyond environmental issues, including adopting the UN's framework for human rights. We intend to be a corporation that creates both social and economic value at the same time, while earning lasting trust as a good global corporate citizen.

Since our founding, we have helped build social infrastructures in Japan and worldwide to realize a safe, secure society. Drawing on more than a century of experience, we are committed to making further contributions for a sustainable society. We will do this through business creation in cooperation with partners across the globe, or "collaborative creation," centered on our Social Innovation Business.

† United Nations Conference on Sustainable Development: A meeting of world leaders in Rio de Janeiro, Brazil, in June 2012, discussing ways to address economic, social, and environmental issues over the next ten years. Coming 20 years after the United Nations Conference on Environment and Development (Earth Summit) of 1992—and held in the same city—this conference has been called Rio+20 because it takes stock of the progress since then.

H. Nalus

Hiroaki Nakanishi President, Hitachi, Ltd.

# VISION

# Management Strategies and CSR

Transforming into a truly global enterprise, we share society's values and pursue sustainable growth by integrating management strategies and CSR. Our challenge is to achieve our 2012 Mid-Term Management Plan and CSR to create both social and economic value.

For us, CSR is about making our Corporate Credo and Group Vision a reality. Based on Hitachi's Founding Spirit, our Group Vision guides our purpose as a business to contribute to resolving the issues in the UN Millennium Development Goals—poverty and hunger, inequality of primary education, disease and environmental problems and to realize a safe, secure, comfortable society. Also, the Hitachi Group Codes of Conduct help us maintain a high level of public trust, and we make sure that these are known to our employees worldwide.

To develop global operations focussed on Social Innovation Business, we created the 2012 Mid-Term Management Plan in fiscal 2010. We work with customers and partners to create value that will last for generations, based on our mission as a manufacturer. We strive to reflect our Mid-Term Management Plan's challenges, identified through materiality analysis, in our CSR activities.

Through these activities, we integrate management strategies and CSR and create both social and enterprise value to realize sustainable management and a sustainable society.



WEB http://www.hitachi.com/about/vision/conduct/

# The Five-Year CSR Roadmap

In fiscal 2010, we created the Five-Year CSR Roadmap, a medium-term plan for CSR. The goal is to use this roadmap to reinforce the foundation of the management, resolve fundamental global issues, and demonstrate leadership in becoming a truly global enterprise.



# 2012 Mid-Term Management Plan

# Management Goals and Forecasts for the Final Fiscal Year

We created the 2012 Mid-Term Management Plan in fiscal 2010. Regarding the forecasts for fiscal 2012, although revenues will not reach the target due to our sale of the HDD and small-to-medium LCD

	Fiscal 2011 Results	Fiscal 2012 Forecasts	Fiscal 2012 Targets
Revenues	¥9,665.8 billion	¥9,100 billion	¥10,000 billion
Operating income ratio	4.3%	5.3%	Over 5%
Net income attributable to Hitachi, Ltd.	¥347.1 billion	¥200 billion	Consistently generate at least ¥200 billion
Debt-to-equity ratio*	0.86 times	0.80 times	0.8 times or below
Total Hitachi, Ltd. stockholders' equity ratio	18.8%	20.0%	20%

\*Including the non-controlling interest and liabilities associated with the consolidation of securitized entities

# **Social Innovation Business Strategy**

A year after the Great East Japan Earthquake, there is a strong need for building disaster-resistant cities, establishing a robust IT infra-structure, ensuring power, and accelerating the diversification of power sources. The flooding in Thailand also highlighted the need to manage risk, maintain data centers and other infrastructure, and to build a better parts supply and production system.

To help develop a sustainable social infrastructure, we will expand our Social Innovation Business by focusing on "Global", "Fusion" and "Environment".

Specific strategies:

- 1. Expand smart city business globally by using our demonstration models
- 2. Pursue global growth in infrastructure systems in

# Three Focuses of Social Innovation Business Global

Leverage the Group's knowhow and experience, as well as the trust of our regional customers and partners, to become a truly global enterprise.

### Fusion

Address every nation's need for Social Innovation Business by integrating our social infrastructure and IT expertise to produce unique value. **Environment** 

# Draw on a wide range of environmental technologies and accumulated experience to build better environmental systems, helping to resolve global environmental issues.

businesses, other targets, such as operating margin ratio, net income attributable to Hitachi Ltd., debtto-equity and total Hitachi, Ltd. shareholders' equity ratios, are expected to be achieved.

WEB Progress of 2012 Mid-Term Management Plan http://www.hitachi.com/New/cnews/120510a.html

### Forecast Revenue Ratio and Percentage of Employees outside Japan

		Fiscal 2010 Results*	Fiscal 2011 Results	Fiscal 2012 Forecasts
	utside Japan evenue ratio	41%	43%	43%
Employee	Employees in Japan	212,000	212,000	212,000
/ee composition	Employees outside Japan (percentage)	100,000 (32%)	111,000 (34%)	125,000 (37%)
sition	Total	312,000	323,500	337,000

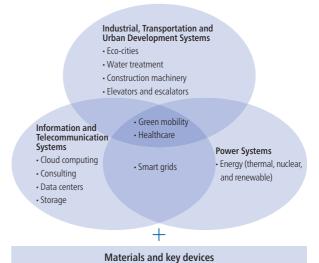
\*Includes impact of sale of small-to-medium LCD and HDD businesses

response to market needs

- 3. Expand information telecommunications business globally using Big Data technologies
- 4. Accelerate global business expansion for power systems

In April 2012, we reorganized in-house companies and Group companies into five groups. By integrating IT and Social Infrastructure based on market needs, we will accelerate the creation of new businesses, technologies, and services in important growth regions and industries.

### **Social Innovation Business Framework**



# 2012 Mid-Term Management Plan: Key Management Policies and Related CSR Activities

CSR activities are playing a crucial role in achieving 2012 Mid-Term Management Plan goals. For our key management policies in particular, we will need to promote CSR activities and strategies related to Hitachi material issues (see page 012).

2012 Mid-Term Management Plan	Material Issues for Hitachi				
Key Management Policies	CSR Initiatives and Results	Page(s)			
	Supply Chain Management				
I. Strengthen Management Base	Promotion of the Hitachi Smart Transformation Project*	pp. 024–025 Corporate Governance			
<ul><li>(1) Cost structure reforms</li><li>Execute the Hitachi Smart Transformation Project</li></ul>	Expand rate of procurement outside Japan FY 2010 FY 2011 36% <b>38%</b>	p. 092 Supply Chain Management			
<ul><li>(2) Strengthen financial position</li><li>Boost profitability and reinforce</li></ul>	Products That Create a Sustainable Society (Sustainab	le Business)			
financial position <ul> <li>Focus management resources</li> </ul>	Focused R&D investment in Social Innovation Business FY 2010 FY 2011 ¥200 billion ¥230 billion	p. 038 Innovation Management			
	Diversity Management				
II. Global Growth Strategies	Participation in Global Fundamental Course FY 2011 Total participants: <b>139 people</b>				
<ul> <li>(1) Expand investment in key regions</li> <li>Globalize corporate functions and promote China Business Strategy 2015</li> <li>Expand business in ASEAN as a new</li> </ul>	Trend in the number of non-Japanese employees         FY 2010       FY 2011         230 people       239 people	pp. 120–122 Global Human Capital Development			
key region and start up business in Myanmar (2) Optimize use of human resources and	Number of young employees given experience outside Japan       FY 2011–2012 Plan     FY 2011       2,000 people     1,064 people				
increase efficiency <ul> <li>Pursue global human resource</li> </ul>	Caring for the Global Environment				
strategies • Launch Global Management Human Resources Development and Allocation Program in Fiscal 2012	Contributions to CO <sub>2</sub> emission reduction FY 2010 FY 2011 (estimate) FY 2015 target 15.51 million tonnes <b>18.09 million tonnes</b> 35 million tonnes	pp. 053–054 Corporate Environmental Management Strategies and Initiatives			
<ul> <li>(3) Strengthen global governance</li> <li>Strengthen response to globalized management and supervisory functions</li> </ul>	FY 2010         FY 2011         FY 2015 target           78%         80%         88%	pp. 060–064 Environmentally Conscious Products and Services			
(4) Value creation and CSR • Pursue contributions to the	Respect for Human Rights				
<ul> <li>Pursue contributions to the environment and regional social contribution activities</li> <li>Respect human rights and implement stakeholder dialogues</li> </ul>	Implementing human rights e-learning in Europe* FY 2011 Provided to approx. <b>10,000 employees</b>	p. 090 Respect for Human Rights			
	Public Policy Initiatives				
	Implementation of stakeholder dialogues* FY 2011 Held in <mark>three regions</mark> : Brazil, Indonesia, and Belgium	pp. 105–106 Public Policy Initiatives			
		[*Non-quantitative activities]			

# **Material Issues for Hitachi**

Hitachi includes the participation of stakeholders in the decision-making process for CSR activities and strategies. We engage in stakeholder dialogues worldwide to identify social and environmental issues, conducting assessments and verifications from the perspectives of stakeholder materiality and the impact on management. We report on these key issues in the *Hitachi Group Sustainability Report Digest*.

# 1. Products That Create a Sustainable Society (Sustainable Business)

Developing innovative technologies and products is vital to growing our business and realizing a sustainable society. We are developing products that both lower environmental burden and improve the quality of life so that we can contribute to a prosperous, safe, and secure society.

# 2. Protecting the Environment

We feel that we can help protect the environment by reducing the environmental burden of products throughout their life cycle. We have created our Environmental Vision with three pillars: prevention of global warming, conservation of resources, and preservation of ecosystems. Under this vision, we provide environmentally conscious products and services by reducing the environmental burden from operations and improving their energy efficiency.

# 3. Public Policy Initiatives

Our Social Innovation Business is subject to the policies of national governments, therefore we assess policy trends while engaging in dialogue with stakeholders who influence public policy and regulations. As a result, we can propose technologies and solutions that both benefit society and contribute to better policies.

# 4. Respect for Human Rights

As a global enterprise, we face risks because we operate under different national laws, cultures and business practices. We respect the laws and ordinances of every country, and we act with respect for international norms to prevent human rights violations.

# 5. Supply Chain Management

Supply chain risks are gradually increasing with the globalization of business, especially for the environment and human rights. We openly share our procurement policies with suppliers, and we reduce supply chain risk through ongoing surveys of CSR practices with our suppliers.

# 6. Diversity Management

We believe that diversity is much more than the human rights issue of gender equality. It is a fundamental challenge for sustainable management, generating synergies beyond the Hitachi Group, business fields, and globalization. We therefore have initiated worldwide programs that maintain personnel systems while respecting diversity, by improving workplace environments, and by cultivating human capital that can accelerate the globalization of Hitachi and contribute to market-based sustainability needs.



#### Selection Process for Material Issues

We evaluate and verify issues identified through stakeholder dialogues with international organizations, and we identify sustainability issues in public policy trends from the standpoints of importance for stakeholders and the influence on business. The importance for stakeholders includes human rights, international development, the environment, reporting, ethics, and regional and international requirements. The influences on business are assessed from the perspectives of the global, fusion, and environmental focuses of our 2012 Mid-Term Management Plan, as well as the perspectives of innovation, risk, reputation, and cost effectiveness. The digest of this report presents these important issues in the two assessment areas.

### Material Issues for Hitachi

# FEATURE

# Relationships Drive a Sustainable Society Lessons from the Great East Japan Earthquake

### 14:46, March 11, 2011

Eastern Japan was struck by a catastrophic earthquake and tsunami, an unparalleled disaster that caused widespread damage and severe problems. During this critical time, at Hitachi we used our expertise in power generation, waterworks, communications systems, and other social infrastructure—working with our stakeholders—to overcome many obstacles.

Sendai's Minami-Gamo Purification Center, handling the sewage treatment essential for urban living, suffered considerable damage from the tsunami. The strong sense of social responsibility shared by both Hitachi, the center, and a customer enabled us to quickly restore equipment and systems. Similarly, the generous support extended to us by our suppliers reflected the deep mutual understanding and trust we have developed through sharing information and challenges and through resolving problems together. These solid relationships meant that Hitachi could act together with Kita-Nippon Bank and other customers affected by the earthquake and tsunami in ways that in some cases went beyond the scope of contracts and rules, using wide-ranging networks to find solutions.

Another critical issue was to heal the deep emotional scars left by the disaster. We used our people-centered methods to collaborate with Sendai City to survey evacuation centers, identify issues, and propose solutions. We also provided volunteer support for our own employees' urgent needs. By sharing the lessons learned from the disaster with stakeholders, we will continue to use energy technologies and other elements of our Social Infrastructure Business to help build a sustainable society.



# **Protecting Lives**

🔗 With Customers: Minami-Gamo Purification Center

The Minami-Gamo Purification Center, treating wastewater for 700,000 people in Sendai, had severe tsunami damage. Sharing a sense of responsibility for this key infrastructure, we helped to restore emergency systems.

# Rapid Makeshift Restoration Keeps City Functioning

The Minami-Gamo Purification Center in Sendai, the biggest wastewater treatment plant in northeastern Japan, processes sewage and gray water for 700,000 people. The tsunami caused massive damage to many treatment plants on the coast.

The loss of water purification, among the most important urban systems, seriously impacted daily life. Center director Keiji Ishikawa recalls that when At the Minami-Gamo Purification Center

From left: Masatomi Yamakawa, Foreman, Minami-Gamo Purification Center, Waterworks Division, Construction Bureau, Sendai City; Hiroshi Kawahara, same; Keiji Ishikawa, Director, Minami-Gamo Purification Center; Masaru Mizuhara, Director, Social Solutions Group, Electrical Equipment Systems Division, Tohoku Area Operation, Hitachi, Ltd.



The tsunami wreaked pipes, wastewater intake equipment, pumping towers, machinery, and electrical equipment. Much equipment was destroyed.

the disaster struck they were working on a business continuity plan (BCP) and reviewing cooperation. "We lost communications with most engineering companies, but by midnight Hitachi and other companies went to City Hall to offer their help."

Immediately after the tsunami, sluice gates were opened to prevent flow back into the city. "Some nearby towns limited sewage to prevent backflow. In Sendai, the strong sense of duty and hard work of our staff and cooperating companies prevented backflow," says Ishikawa. "Working with Hitachi and other partners early on to assess the damage really sped up restoration."

Creating an equipment restoration plan came next. Blueprints and office equipment had been washed away, and debris filled the buildings. Hitachi engineers worked with center staff under trying conditions to check equipment, write a detailed report, and develop a recovery plan.

# Going Global Based on Experience Gained from the Disaster

Sewage treatment began just after the disaster, followed in March 2012 by medium-level microorganism treatment to improve water quality. We restored an ultra-high voltage substation and sludge incineration equipment. We will help with full restoration in 2015.

"Last year, 159 groups and 2,000 people came to visit," notes Ishikawa, "probably the last time a sewage plant of 400,000 tonnes per day for 700,000 will be rebuilt in Japan, but many world cities need large-scale processing, as well as areas with poor sanitation. It would be great if Hitachi uses their experience globally gained from restoring our center to combine solar power and energy efficiency."

Our Social Infrastructure Business covers water and other urban systems. With a strong social responsibility, we develop technologies and gain experience for safe, comfortable living.

# **Financial Systems Support Communities**

# 💎 With Customers: Kita-Nippon Bank

Kita-Nippon Bank, supporting communities in the Tohoku region and elsewhere, had many branches damaged by the tsunami. We used our nationwide network to quickly find office terminals and get ATMs into temporary facilities, assisting with their recovery. At the Midorigaoka Branch of Kita-Nippon Bank

From left: Takahiro Chubachi, Iwate Branch, Tohoku Area Operation, Hitachi, Ltd.; Shinichi Kudo, Assistant Manager, Systems Control Group, Business Systems Division, Kita-Nippon Bank; Yoshinori Takahashi, Manager, Business Systems Division, Kita-Nippon Bank; Masahiro Nakaochi, Service Head Office, Tohoku Regional Office, Hitachi Systems, Ltd. We received a letter of thanks

from Kita-Nippon Bank for our support after the Great East Japan Earthquake.

# Helping Restore Damaged ATMs and Terminals

Kita-Nippon Bank in Iwate operates in Tokyo and in Tohoku (except Yamagata). The nine branches on the coast had major tsunami damage.

Since 2008, this bank has been using the Hitachi systems solution NEXTBASE.\* We recovered ATMs that had been swept away and contacted other banks that use NEXTBASE, arranging for office terminals to be brought in. We provided support in response to requests that included putting ATMs into temporary branch offices, installing new ATMs, and providing computers.

Yoshinori Takahashi from Kita-Nippon Bank said that we went between banks and handled everything from contracts to opening temporary offices. He said, "Hitachi acted as though it was nothing special, just a natural extension of a strong relationship built up over time." "Key data was saved because the center with the host computers

\* NEXTBASE: A joint outsourcing service that provides base systems such as accounting and host systems for regional financial institutions

wasn't in Tohoku, allowing for a speedy recovery," added Shinichi Kudo.

# Developing Disaster-Resistant Information Systems

Catastrophes like the Great East Japan Earthquake make it hard for banks to quickly recover. "If Hitachi could devise ways for banks to lend among themselves in an emergency, it would really help during disasters," suggests Yoshiyuki Sato from Kita-Nippon Bank. We will always live up to the trust of our customers by using our technologies and networks to support local communities.



The tsunami devastated the Takata Branch, sweeping away the building front and ATMs.



The tsunami caused major damage to 20 ATMs. Engineers tackled tasks such as repairing ATMs with case damage.

# Taking on the World with Strong Partnerships

# With Suppliers: Hitachi Industrial Cooperative

The swift recovery of the damaged Hitachi Works in Hitachi City was underpinned by support from many of our suppliers. The strong partnerships with suppliers that come from sharing information, challenges, and the same dedication was critical during the disaster.



Hitachi Works after the disaster. Many Group factories were damaged.

At the Hitachi Works Yasunobu Komine, President of Komine Corporation and Acting Director Hitachi Industrial Cooperative (right); Toshio Shimizu, General Manager Procurement and Sourcing Dept., Power Systems Company, Hitachi, Ltd.

Un

# Partnerships Shine during Disaster Recovery

The Great East Japan Earthquake and tsunami devastated buildings, cranes, machine tools, and other equipment at the Hitachi Works in Hitachi City, Ibaraki Prefecture. By the end of March—less than a month later—production was almost completely restored. This quick recovery was due in part to the Hitachi Industrial Cooperative.\*

Made up of Hitachi Group suppliers, the Cooperative has linked Hitachi and small and mediumsized local companies since being founded in 1949. Immediately after the disaster, Cooperative members shared information on damages and supported the restoration of Hitachi Works. For example, when workers couldn't enter damaged buildings, Yasunobu Komine recalls how member companies lent us workspace and tools to reduce the impact on our customers as much as possible. Support from the Hitachi Industrial Cooperative and many other suppliers was vital for our rapid restoration of operations.

# Growing Together by Sharing Information and Challenges

"Cooperative members know they are contributing to society through their involvement in Hitachi's operations, focused on the Social Innovation Business," explains Komine. "At regular briefings, we share information on markets and technology. Responding to Hitachi's requirements helps us to develop."

"Interaction, such as information exchanges, allows the Hitachi Group and suppliers to meet challenges, like globalization, together," says Toshio Shimizu. Study groups discuss globalization and BCPs. In June 2012, Hitachi coordinated a trip to China for 14 companies. The strong supplier partnerships create a sense of purpose, information, and challenge. For tough competition in global markets, we will deepen those partnerships and support our partners' globalization as we grow together.

\*Hitachi Industrial Cooperative: 37 suppliers (March 2011) with committees on canning, electrical products, and machinery raw materials, with joint order receipts, purchasing, low-interest loan promotion, and insurance.

Hitachi Group Sustainability Report 2012 016

# Supporting Disaster-Resistant Cities

# 🛗 With Government: Sendai City Hall

Broken utilities and transportation systems forced more than 100,000 into Sendai's evacuation centers. We used our peoplecentered techniques to survey and analyze these centers, highlighting challenges and urgent needs, while proposing solutions.

From left: Atsushi Okawa, Disaster Reconstruction Office, Sendai City; Hirohito Kojima, (then-) Vice Director, Disaster Reconstruction Headquarters, Sendai City; Nobuaki Takahashi, Information Systems Sales Dept. 2, Tohoku Area Operation, Hitachi, Ltd.

# Joint Evacuation Center Survey with Sendai City

In Sendai, the disaster took 872 lives, while the tsunami damaged or destroyed more than 8,000 homes. Local government authorities opened evacuation centers, even though City Hall was undamaged.

Hirohito Kojima from Sendai City's Disaster Reconstruction Headquarters says, "When considering recovery and disaster prevention plans in the future, Sendai City and local government authorities around the country first want to know about conditions in evacuation centers: What would happen there, and what issues might arise?" After the disaster, many companies offered help, and Sendai City asked Hitachi to jointly survey the evacuation centers. "We wanted to assess the challenges together with a global company like Hitachi in the hope that they might develop technologies and widely spread the information gained," notes Kojima. This was the first joint disaster survey in Sendai conducted by government authorities and a company. The survey team went into evacuation centers in August and September 2011.

# Unique Hitachi Methods Supporting "Soft" Disaster Recovery

We used the experience-based Ex-Approach<sup>\*</sup> for the survey, interviewing 27 people in seven shelters on items such as nearness to transportation or devastated areas. For easy analysis, events and problems were arranged chronologically from when the earthquake occurred to closing the centers. The survey showed life in evacuation centers moving through three phases: "gathering," "living," and "leaving." We then held two workshops with Sendai City to assess the key issues, later developing disaster prevention and mitigation proposals,



At a workshop at the City Hall, events and victims, then issues from the time of the earthquake to evacuation center closure were drawn from City Hall staff's daily reports and accounts of interviews with disaster victims then arranged chronologically for analysis and identification of issues, together with those staff members.

including clustering evacuation centers in communities and using information systems to gather and collate information.

"In government, we tend to focus on the 'living' phase of operations, but the survey gave us a bigger picture. We will need similar cooperation from companies in the future," Hirohito Kojima commented. Atsushi Okawa, also from Sendai City, praised the impartial way issues were identified.

# Using People-Centered Technology as a Partner of Government

Sendai City is improving its disaster mitigation and energy policies to become a "disaster-resistant, environmental city on a new level." Another aim is to strengthen "civilian power" by intensifying collaborations with companies and people's ability for self-help. Hirohito Kojima notes, "Sendai's mission is to create a disaster-resistant model through the lessons learned during and after the disaster and to communicate this to the rest of Japan and the world. We hope that Hitachi will contribute both 'hard' and 'soft' technologies to increase social satisfaction and to work together with us to pass on these innovations to Japan and beyond."

We look forward to making maximum use of our people-centered and experience-focused survey and analysis techniques, as well as our technological strengths. We will continue to collaborate with local authorities to resolve the issues faced by their communities, helping to build systems that provide a safer, more secure society for everyone.

\*Ex-Approach: A unique Hitachi framework for assessing and sharing issues and solutions with others, using consensus and making issues visible to create realistic basic concepts and systemization plans.

# **ÜÜ**

# Supporting Employees' Volunteer Work for Disaster Recovery

We hold seminars and workshops to respond to the needs of employees volunteering their support for disaster areas and victims. We will continue to support our employees' volunteer work.

Many employees volunteered to help in disaster areas. However, others wanted to help but were worried about going there. Hitachi's Corporate Citizenship Department then supported those employees. In fiscal 2011, we held four meetings for 150 employees, including a mental care seminar and a cloth toy workshop.

The mental care seminar gave employees an understanding of the conditions and some preparation to prevent them from being overwhelmed or becoming a burden to victims when they volunteer in disaster areas. Employees who were introduced to volunteer activities that could be carried out in Tokyo, such as making cloth toys for children in disaster areas, commented that they were pleased to know that there was something they could do locally.

Social concern was clear from employees using the in-house Social Networking Service (SNS); they exchanged information, talking about volunteering and their own experiences. We value employees' concern and maintain support for volunteering through, for example, seminars and travel to disaster areas. The entire Hitachi Group supports the recovery process.



Volunteers used SNS and websites, showing their volunteer spirit at a seminar. Volunteer information and personal reports are put up on the SNS and websites, fostering the volunteer spirit among Group employees.

# Exploring Energy Sources in Light of the Quake

After the earthquake, Hitachi made every effort to promote the restoration of power generation plants and other infrastructure systems.

Dialogue

Vice President and Executive Officer, and President of Power Systems Company

Tatsuro Ishizuka

Hideto Kawakita EO, International Institute for

Human, Organization and the Earth (IIHOE)

Hideto Kawakita Set up IIHOE in 1994 to help non-profit organizations and socially responsible corporations while laying the foundations for cooperation between nonprofit organization and governments, and engaging in corporate social responsibility and environmental and social communications.

# Harnessing Human Resources and a Swift Restoration

Kawakita: The Power Systems Company delivers thermal and nuclear power generation, power transmission and distribution, and renewable energy. I heard that Hitachi Works, a core plant which you oversaw during the earthquake, was severely damaged. What was your initial response?

**Ishizuka:** Above all, we worked on preventing a secondary disaster because there were frequent aftershocks. We did not let people go into the plant until we made sure that it was safe.

Kawakita: So, safety was the overriding concern. Ishizuka: We also needed to respond swiftly to customer needs. At first, we were unable to picture the overall damage. So, we summoned general managers and above and instructed them to gather information on the situations at nuclear and thermal power plants, especially those requiring immediate attention, and we provided support to Emergency Response Centers. We had trained employees for contingencies and had a communications network in place. So, there was little confusion in confirming safety.

Still, the earthquake ruined plumbing and some plant equipment, causing water cuts and blackouts. We had to restore things quickly. But only 10 of 6,000 employees were plumbers or electricians. So, we formed teams with other Hitachi Group employees and with people from outside the Group who came to help. We harnessed their expertise and skills. For example, an inspector knowledgeable about high voltages inspected a power plant, a construction engineer helped to build a temporary office, and so on. Hitachi Works traditionally holds a sports day that crosses business boundaries. I think that one reason our recovery went so smoothly was that we were able to form cross-divisional teams.

Kawakita: What about community assistance? Ishizuka: We used the gasoline we obtained from headquarters to fuel emergency vehicles and enable Group company Hitachi Dentetsu Co., Ltd. to operate local buses. We felt it was important to rebuild the community infrastructure based on the belief that the town would start up again once it regained some transportation. Although we had a well at the plant, we could not distribute water to local residents because we did not have approval from the public health department. After the earthquake, we did get authorization and reached agreement with the municipal government to supply well water during emergencies in the future.

# Reviewing Safety Standards and Going beyond Assumptions

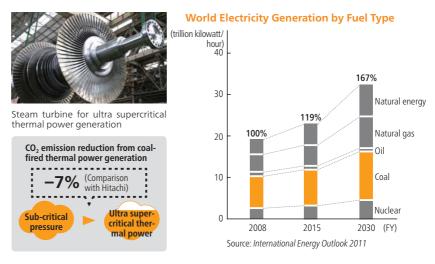
**Kawakita:** Since the quake, people's expectations for ensuring energy safety have been increasing. What is your safety focus?

**Ishizuka:** Improving the safety of nuclear power is a social necessity. We are focused completely on this. Preventing another serious accident like the one at Fukushima Daiichi is closely related to the national government's safety guidelines. We will make

### High-Efficiency Coal-Fired Thermal Power Helps Reduce Global CO<sub>2</sub> Levels

Coal-fired thermal power supplies 40 percent of electricity globally, and coal is a major energy source. Coal-fired generation efficiency rises when steam is at high temperatures and pressures, so we developed ultra supercritical thermal power technology, with temperatures up to  $600^{\circ}$ C and 25-MPa pressures. CO<sub>2</sub> emissions are 7 percent lower than current pressure power generation (estimate).

We help reduce global CO<sub>2</sub> levels with high-efficiency coal-fired thermal power. Ultra supercritical thermal power plants are the world's most efficient.



proposals and participate in technical improvements. At the same time, after a full review we must now prepare for events that go beyond our assumptions. We need to review frameworks, such as those for regulations and responsibilities, as a national commitment. To do this, I think we need to communicate risks accurately rather than fuel anxiety. It will take a long time to decommission the reactors at Fukushima Daiichi. We are committed to contributing to that process through to completion, including developing robot technology.

Kawakita: From the public's point of view, no matter how much you say that something is technically safe, you cannot completely erase concerns. To ensure safety, you need to generate trust with people and the organizations controlling technology. So, aside from the technical management, I believe that people will continue to question how seriously safety is being handled.

# Responding to National and Regional Best Energy Mixes

**Kawakita:** It seems that demand for energy and expectations for a stable supply are likely to increase. What's your stance on energy?

**Ishizuka:** When you consider such factors as energy costs, sustainability, and security, we should explore the potential of natural energy. At the same time, I think it is important to make nuclear power safer and increase the efficiency of thermal power. Optimal energy mixes differ among countries and regions. Particularly in Asia, there is high demand for coal-fired thermal power, so many governments base their policies on coal. Demand is rising for boil-

ers using lignite, which has high moisture content, in Eastern Europe, India, and Southeast Asia. Our leading-edge ultra supercritical coal-fired thermal power technology is highly efficient and can help reduce CO<sub>2</sub>. We need to meet energy demand by combining natural energy with nuclear, thermal, and other power generation, while using our global technologies and resources.

Kawakita: Following the Great East Japan Earthquake, interest in energy and local production, consumption and regional optimization has risen. We're seeing a trend toward combining biomass, wind power, storage batteries, and other technologies. Ishizuka: We're focusing mainly on wind and solar power. Hitachi is strengthening business in downwind technology, which is ideal for sea and hill sites. However, we need transmission networks that can handle diverse combinations including wind, solar, thermal, and other power sources with different types of power. In April 2012, we set up the Transmission & Distribution Systems Division, and are focusing on cutoff equipment, transformers, transmission networks, and smart grids.

**Kawakita:** When you develop business outside Japan, don't you sometimes make proposals before national standards are decided?

Ishizuka: For countries without energy regulations, we submit proposals for formulating regulations and energy policies, and we assist with the education of technicians. We propose optimal solutions for each country and region that uses highly efficient smart grids, combining components such as thermal and other large generating plants, natural energy and other distributed energy, and storage batteries.

143rd General Meeting of Shareholders (Hitachi, Ltd.)



HITACHI Inspire the Next

# Highly Effective and Transparent Global CSR Management Using Local Initiatives in Group Governance



# Toshiaki Kuzuoka

Senior Vice President and Executive Officer, in charge of Human Capital, Government & External Relations and Corporate Auditing, General Manager of Legal and Communications Group and Compliance Division and Deputy General Manager of Hitachi Group Headquarters for Postearthquake Reconstruction and Redevelopment, Hitachi, Ltd. The Hitachi Group is committed to ensuring integrity and complete transparency in business operations. In fiscal 2003, we adopted the committee system under the Companies Act of Japan as our governance structure and established three whistle-blowing systems so that employees can directly report to compliance officers, an outside attorney, or to our board of directors. In fiscal 2008, we introduced the Hitachi Global Compliance Program, an integrated system that includes audits and education, to prevent our senior executives and employees from bribery of public officials in and outside Japan. In fiscal 2011, we translated the Hitachi Group Codes of Conduct into 17 languages to share them with Group companies worldwide as part of our drive to lock in effective, transparent corporate governance with a strong awareness of global standards.

Fiscal 2012 marks a decade since we first launched drive to strengthen governance. To enhance our governance system, we chose the majority of our board of directors from outside the Company and increased non-Japanese directors from one to three people. We will also focus on efficient Group governance to boost global competitiveness. This includes sharing management duties. Particularly, in the emerging countries where we expect strong growth, we are developing core local human resources and partnerships with outside institutions to improve efficiency and transparency. Another challenge is to improve local initiatives. In April 2012, we created the position of Chief Executive Officer for Asia Pacific. We are determined to develop local strategies and centralize procurement and other functions for speedier and more locally oriented business operations.

In 2011, Japan and Thailand suffered severe disasters that caused materially adverse effects worldwide. I believe that drawing on the lessons learned from these experiences and focusing our combined strength on Social Innovation Business will create safer, more comfortable urban areas around the world. That will be a real contribution for recovery.

The Hitachi Group will continue to focus on local initiatives and reinforce global governance striving for globalstandard CSR management. 025 Corporate Governance

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# **Corporate Governance**

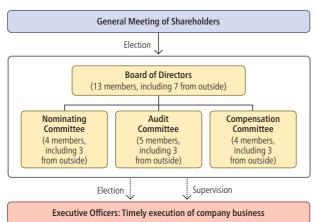
By enhancing corporate governance, the Hitachi Group is promoting speedier, more efficient management and is meeting the expectations of stakeholders as a business that merits the public's trust.

# **Strengthening Governance**

Hitachi operates under a committee system.<sup>†1</sup> We have strictly separated business supervision and execution to establish a business structure for speedy, highly transparent management.

We aim to reinforce the supervisory function of the Board of Directors with a majority of independent outside directors and a policy towards diversity, such as women and non-Japanese directors, to reflect a balanced mix of ideas and global perspectives. Further, 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 criteria for assessing the independence of outside directors.

# Governance Structure of Hitachi, Ltd.



11 Committee system: A corporate governance system 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. Hitachi, Ltd. and its nine major listed subsidiaries have adopted the committee system.

WEB Corporate Governance Guidelines of Hitachi, Ltd.

http://www.hitachi.com/IR-e/corporate/governance/guidelines.html

# Compensation

Compensation for every director and executive officer is set by the Compensation Committee based on the Japanese corporate law governing companies with committees.

Compensation for directors and executive officers consists of monthly salaries together with year-end allowances for directors and performancebased bonuses for executive officers. While compensation for directors is generally fixed, performance-based bonuses for executive officers are set at around 30 percent of annual compensation. Bonuses are determined individually according to business performance and the outcome of work carried out under the officers' management.

Beginning with compensation for fiscal 2008, the scheme for directors and executive officers was revised to eliminate retirement allowances. In fiscal 2011, executives were compensated as follows:

### FY 2011 Compensation

<u>.</u>	Salaries and year-end allowances or performance-based bonuses		
Category	Recipients (number)	Total amount (millions of yen)	
Directors (outside directors)	13 (6)	317 (85)	
Executive officers	29	1,740	
Total	42	2,058	

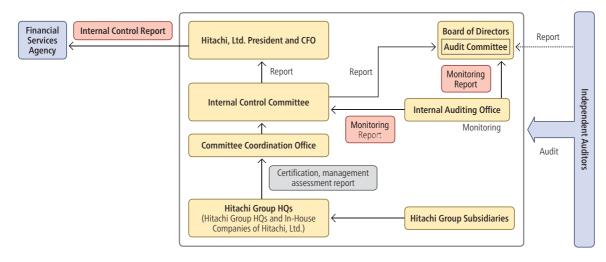
\* The number of directors indicated doesn't include two serving concurrently as executive officers.

\* Compensation to directors includes the monthly salaries, from April 2011 to the time of retirement, of two directors who retired as of the close of the 142nd Ordinary General Meeting of Shareholders on June 24, 2011 and one director who retired on September 30, 2011.

\* We additionally provided ¥144 million in retirement allowances to one director who retired on September 30, 2011 and one director who retired on June 22, 2012, and ¥83 million in retirement allowances to four executive officers who retired on March 31, 2012.

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### Hitachi Internal Control Assessment Framework



# Internal Control over Financial Reporting

Hitachi, Ltd. and listed Group companies establish, maintain and evaluate internal control over financial reporting, and then report the results on a consolidated basis.

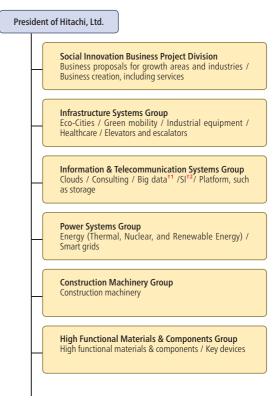
The Group is committed to complying with all laws and regulations. Further, Hitachi recognizes that it is an important social responsibility to establish and maintain the systems that ensure appropriate financial reporting, and we will enhance the transparency and credibility of our business operations.

# **Group Management**

Hitachi, Ltd. instituted an in-house company system in fiscal 2009 to optimize business operations. By maintaining the independence of in-house and Group companies, we clarified the responsibilities and authority respecting management independence and original innovation. This has speeded up management and enhanced competitiveness. Since fiscal 2010, we have rated each company and transferred authority to ensure swift, independent management.

In April 2012, we restructured into five groups to boost and enhance Group strengths, centered on the Social Infrastructure Business. These groups are the Infrastructure Systems Group, the Information & Telecommunication Systems Group, the Power Systems Group, the Construction Machinery Group, and the High Functional Materials & Components Group. We are now better able to respond to customer needs by focusing on growth areas, inte-

### Hitachi's Management Structure Based on Five Groups



11 Big data: Technology that handles the massive volumes of the unstructured data that normal systems cannot process

12 SI (systems integration): Integrated information system services, including planning through construction to management responding to customer needs

#### 049 Environmental Report

#### 021 Management Report

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grating management of closely related businesses, and accelerating decision making, as well as optimizing the business portfolio within the Group.

We also reinforced overall Group corporate functions by launching the Hitachi Smart Transformation Project in April 2011. Through this initiative and others, we are reforming the Group-wide business structure, optimizing the allocation of resources, and sharing common resources among business units. The Group Strategy Committee sets Group-wide strategies to enhance Hitachi Group management. 022 Message
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# **CSR Management**

We strive to live up to our Corporate Credo of contributing to society through the development of superior, original technology and products. We are also mindful of our vision to help solve fundamental global issues and to pursue the realization of a better, more prosperous global society. We intend to become a truly global entity that shares values with society by integrating CSR into management and operation strategies.

# **CSR Management Structure**

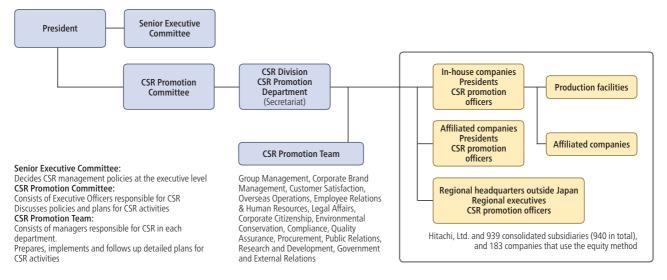
To promote CSR, the Hitachi executive officers from corporate divisions on the CSR Promotion Committee discuss Group-wide CSR issues and policies. This committee develops specific global initiatives with the CSR promotion teams from CSR-related departments within Hitachi, Ltd. and CSR promotion officers from regional headquarters outside Japan. Hitachi, Ltd. and Group company CSR promotion officers also meet regularly to discuss issues that need attention and to follow a common direction.

To meet our responsibilities as a global enterprise, we take on sustainable activities for the entire Group by using two management systems: the materiality process and the jointly developed CSR Self-Assessment Tool, which we use to improve Group-wide activities and to clarify the issues that we face as a global entity. By talking with and listening to global stakeholders, we proactively integrate global social issues within management to create sustainable management and social programs. Management issues identified through these processes are presented and discussed at the CSR Promotion Committee and are reflected in the following year's initiatives.

# **Five-Year CSR Roadmap**

We marked the centennial of Hitachi, Ltd. in fiscal 2010 by creating the Five-Year CSR Roadmap, a medium-term plan for CSR. The goal is to coordinate this initiative with the Mid-Term Management Plan, or corporate strategy, to become a truly global enterprise. Using this roadmap, we have reinforced the foundation of Group-wide operations, measured CSR activities, and improved corporate transparency. We are taking a leading role in resolving the global challenges that confront society, seeing them as opportunities, while creating the conditions for a sustainable future.

Based on this roadmap, the CSR promotion team



# Structure of Hitachi Group CSR Promotion

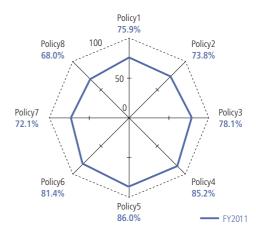
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Adopted March 2005

### FY 2011 Self-Assessment Results (Hitachi, Ltd.)



Main Topics Covered in Each Policy of the CSR Self-Assessment Tool
Policy 1: Commitment to Corporate Social Responsibility (CSR) CSR vision; CSR education; risk management
Policy 2: Contribution to Society through Our Business
Coordination with business strategies; sustainable designs;
innovation; customer satisfaction
Policy 3: Disclosure of Information and Stakeholder Engagement
Information disclosure; dialogue with stakeholders
Policy 4: Corporate Ethics and Human Rights Corporate governance structure; education on ethics and awareness
of legal violations; respecting human rights; infringement risks
Policy 5: Environmental Conservation
Carbon management strategies; resource recycling;
ecosystem conservation
Policy 6: Corporate Citizenship Activities
Strategic social contribution; participation in local communities; social enlightenment
Policy 7: Working Environment
Respecting diversity; fulfilling work environments; work-life balance
Policy 8: Responsible Partnerships with Business Partners
CSR procurement; communication with suppliers; procurement risks

#### WEB CSR Policy of the Hitachi Group http://www.hitachi.com/csr/introduction/hitachi-csr/

8. Responsible Partnerships with Business Partners

**CSR Policy of the Hitachi Group** 

2. Contribution to Society through Our Business

4. Corporate Ethics and Human Rights 5. Environmental Conservation

6. Corporate Citizenship Activities
 7. Working Environment

1. Commitment to Corporate Social Responsibility (CSR)

3. Disclosure of Information and Stakeholder Engagement

at Hitachi, Ltd. and our regional headquarters outside Japan have created action plans and set assessment targets to make CSR programs more effective (see pages 028 and 029).

# **CSR Self-Assessment Tool**

In fiscal 2008, Hitachi, Ltd. and Group companies jointly developed the Hitachi Group CSR Self-Assessment Tool, which benchmarks our companies against other leading global companies. The goal is to tackle issues and clarify initiatives based on our policies for pursuing CSR and continuously improving performance.

In fiscal 2011, we revised this tool to focus more on management collaboration and global perspectives, as well as to address risk and measure impact based on such social demand changes as the launch of ISO 26000 and the requirements of major SRI indexes.

# **Results of Fiscal 2011 Self-Assessment**

After reviewing the results of the fiscal 2011 self-assessment, we recognized how social requirements have changed since we revised the assessment tool. At the same time, we were able to clarify items where building or improving a common global platform were required. In fiscal 2012, we will implement action plans based on the assessment results, while fully deploying our tool among Group companies in and outside Japan. We will also improve overall Group standards to achieve the goals of our Five-Year CSR Roadmap by fiscal 2014.

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# FY 2011 Results and FY 2012 Plans

CSR Policy of the Hitachi Group	Hitachi Group Activities in FY 2011	Results in FY 2011	Achievement Level	Page(s)	FY 2012 Goals/Plans
1. Commitment to Corporate Social Responsibility	Review Hitachi Group CSR Self-Assessment Tool based on global standards	Create a revised version of CSR Self- Assessment Tool based on ISO 26000 through consultation with Group companies	***	p. 027	Apply the revised CSR Self- Assessment Tool to Group companies
2. Contribution to Society through Our Business	Continue implementing the Hitachi Group QF (Quality First) Innovation Movement launched in FY 2010 and assess the results	<ul> <li>Continued implementing the QF Innovation Movement, improving processes for priority business divisions, and OCHIBO HIROI*<sup>1</sup></li> </ul>	Ongoing		Continue implementing Hitachi Group QF Innovation Movement and assess the results
	Continue innovation by reinforcing global R&D	The Institute of Electrical and Electronics Engineers (IEEE), the world's largest professional association, established the Hitachi-sponsored IEEE Innovation in Societal Infrastructure Award • Opened the Hitachi India R&D Center as Hitachi's R&D hub in India	<b>* * *</b>	p. 039	Double the number of R&D personnel at corporate research facilities outside Japan (approx. 150 in FY 2010)
3. Disclosure of Information and Stakeholder Engagement	Continue engaging in stakeholder dialogues	<ul> <li>Conducted dialogues in Brazil, Indonesia and Belgium about Hitachi's solutions for regional social issues</li> </ul>	<b>* * *</b>	p. 103–104	Continue to hold stakeholder dialogues, especially in emerging economies     Participate in international debate and express our views on sustainability
Engagement	Participate in international debate and express our views on sustainability	<ul> <li>Hitachi representatives from various regions participated as panelists or speakers in international conferences (B4E and BSR annual conference, etc.)</li> </ul>	***	p. 103	
4. Corporate Ethics and Human Rights	Promote human rights education globally and expand human rights initiatives in collaboration with nongovernmental and other organizations	<ul> <li>Provide e-learning for around 10,000 Hitachi Europe employees</li> <li>Continued implementing human rights workshops in Europe (participation of more than 80 percent of management)</li> </ul>	***	p. 088–089	<ul> <li>Create Hitachi Group human rights policy in collaboration with nongovernmental and other organizations and develop a due diligence framework</li> <li>Review human rights education content (e-learning, etc.) and deploy across the Group</li> </ul>
	Publish and distribute <i>Hitachi</i> Group Codes of Conduct Handbook     Deploy English and Chinese versions of e-learning tools on the Hitachi Group Codes of Conduct outside Japan	Implemented annual Corporate Ethics Month in October     Created and distributed <i>Hitachi Group Codes</i> of <i>Conduct Handbook</i> and deployed English and Chinese versions of e-learning tools outside Japan to broadly publish the codes	<b>* * *</b>	p. 033	Enhance education materials to broadly publish the Hitachi Group Codes of Conduct     Continue educating and auditing regional headquarters outside Japan
	Continue compliance education and auditing of regional headquarters outside Japan	Held briefings for company leaders and executives from our Asian operations on measures to prevent corruption	***	p. 034	

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	Corporate Governance 043	Message     038     Innovation Management       Corporate Governance     043     Intellectual Property       CSR Management     045     Brand Management       Risk Management     045     Brand Management	Message     038     Innovation Management       Corporate Governance     043     Intellectual Property       CSR Management     045     Brand Management       Risk Management     045     Brand Management

5. Environmental Conservation	<ul> <li>Reduce CO<sub>2</sub> emissions from Hitachi products (target for the year: 20 million tonnes)</li> </ul>	<ul> <li>Helped reduce CO<sub>2</sub> emissions by 18.09 million tonnes (failed to meet target due to major changes in building of power facilities</li> </ul>	**	p. 053–055	Reduce CO <sub>2</sub> emissions from Hitachi products	
6. Corporate Citizenship Activities	Set up and publish medium- term themes to Group businesses globally	following the March disaster)  • Created medium-term themes and an overall plan reflecting the views of operations outside Japan, sharing these with Group companies in Japan	<b>* * *</b>	p. 121	Conduct social contribution activities based on the medium-term themes and overall plan	
	Implement educational support programs in emerging countries	Held the Hitachi Young Leaders Initiative, which nurtures potential Asian leaders, in Vietnam	***	p. 123	<ul> <li>Continue to implement social contribution programs on the environment, energy, and other areas</li> </ul>	
	Continue undertaking social contribution programs covering the environment, energy, and other areas	<ul> <li>Implemented educational support programs on the environment for children in China</li> <li>Held "Science Café" events at which experts speak on environmental issues to deepen understanding of those issues</li> </ul>	***	p. 124–125		
7. Working Environment	Follow up semi-annually on progress with the plans produced by each in-house company for promoting female executives	Conducted follow-up on progress of the promotion plans of each in-house company	***	p. 098	<ul> <li>Follow up semi-annually on progress with the hiring plans of each company</li> <li>Establish balanced working styles by continuing to implement WLB-Up! Month</li> <li>Strictly comply with legal employment rate for disabled people at all Hitachi Group companies in Japan</li> </ul>	
	Establish balanced working styles by continuing to implement WLB (Work-Life Balance)-Up! Month	<ul> <li>Implemented WLB (Work-Life Balance)-Up Month to help people balance their work with their private lives</li> </ul>	***	p. 096		
	Strictly comply with legal employment rate for disabled people at all Hitachi Group companies in Japan	<ul> <li>Held five study sessions on employing people with disabilities within the Hitachi Group</li> <li>Held two Hitachi Group Career Fairs</li> </ul>	***	p. 096		
8. Responsible Partnerships with Business Partners	Monitor suppliers globally	<ul> <li>Established Hitachi Group CSR Procurement Committee to reinforce CSR procurement system</li> <li>Monitored 101 suppliers in China and Asia</li> </ul>	***	p. 092	Reinforce monitoring suppliers globally (site surveys)     Continue to convey useful information for suppliers'     opvironmental monogramment	
	Continue to convey useful information for suppliers' environmental management	<ul> <li>Exchanged information at the New MMM Club*<sup>2</sup> plenary on environmental regulations and outstanding environmental case studies at suppliers</li> </ul>	***	p. 093	environmental management	

\*1 OCHIBO HIROI (gleaning) is Hitachi's program for adopting the customer's perspective when reflecting on past accidents and working to

\*2 The New MMM Club is an organization run primarily by suppliers who have acquired environmental certification through Hitachi's activities to support their environmental programs. *Mottainai*, which means regrettable waste in Japanese, is now an international environmental term. The three Ms come from the first letter of the word *mottainai*.

♦ ♦ ♦ Achieved  $\blacklozenge$   $\blacklozenge$  Partially achieved

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# **Risk Management**

Reducing the frequency and impact of risks globally by strengthening policies and programs to meet the goals of the 2012 Mid-Term Management Plan.

# **Responding to the Great East Japan** Earthquake

A massive earthquake, followed by a devastating tsunami, hit Japan's Tohoku region and Pacific coast on March 11, 2011. We responded by immediately setting up the Emergency Headquarters for Response to Large-Scale Earthquakes to confirm the safety of all employees and their families, while assessing the damage. Many Hitachi Group facilities in Fukushima and Ibaraki prefectures were heavily damaged. We expected that restoration would take a long time, but key business sites completed their recovery within a month and restarted most of their production. This swift turnaround is a testament to the support received from related entities outside Hitachi and the emergency preparedness of business sites within Hitachi. On March 23, we broadened the role of the emergency headquarters to create the Hitachi Group Headquarters for Post-Earthquake Reconstruction and Redevelopment, headed by Hiroaki Nakanishi, president of Hitachi, Ltd. This group functions as a "control tower" for the Hitachi Group, combining information on damage and providing increased efficiency for support and restoration work by consolidation of assistance requests, empowering Hitachi to undertake concerted efforts to restore disaster zones.

# **Reinforcing the Risk Management** System

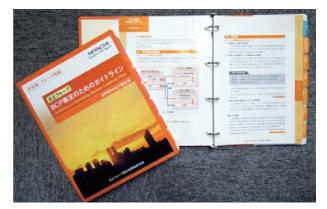
We manage the business and operational risks of every division with internal audits. The entire Hitachi Group is reinforcing their management systems to address increasingly global and complex risks. Since fiscal 2009, we have consolidated information on all risks for all in-house companies, Hitachi Group companies, research centers, and

regional headquarters outside Japan (in the Americas, Europe, China, and elsewhere in Asia). In addition to traditional risks, including natural disasters or business risks such as the market environment and raw material prices, these risks also include environmental and reputational risks, human rights risks that cover employee diversity and poor working conditions within the supply chain, and other risks that could impact Hitachi's credibility and business sustainability.

We will reinforce our comprehensive risk management framework within which our assessment standards are fully examined, where accumulated risk information is analyzed and evaluated in greater detail, and where responses to the results of these analyses and evaluations are examined at the management level. In addition, we will improve risk awareness among all employees, especially through information sharing, education, and training.

# Business Continuity Plans (BCPs)<sup>+1</sup>

To guard against risk, and being deeply committed to the social infrastructure, we are enhancing our BCPs to minimize the impact on society of any interruption to business operations. More specifically, we distributed the Hitachi Group Guidelines for Developing Business Continuity Plans in December 2006 to reinforce risk mitigation for large disasters. In fiscal 2010, we translated our BCP guidelines into



Hitachi Group Guidelines for Developing Business Continuity Plans (department version)

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English and Chinese, and then distributed them to all Hitachi Group companies around the world. In fiscal 2011, we produced a department version of the *Hitachi Group Guidelines for Developing Business Continuity Plans* based on lessons learned from the Great East Japan Earthquake. Using these guidelines, Hitachi Group companies and business sites review and prepare BCPs that match the nature of their operations. For example, we are developing BCPs for flooding in Thailand because six plants of three Hitachi Group companies were affected by floods in Thailand in the fall of 2011.

1 Business Continuity Plan (BCP): A plan for ensuring the continuation of core operations and for promptly restoring operations in the event of a disaster or accident.

# Novel Strain of Influenza Action Plan and BCPs

In fiscal 2008, as a precaution against a novel strain of influenza that gave rise to fears of a pandemic<sup>†1</sup>, we set up a special organization called the Risk Management Headquarters, headed by the president. In the event of a worldwide outbreak, the Risk Management Headquarters would take the lead in securing the safety of all Hitachi Group employees and their families. Every effort would be made to ensure that operations essential for maintaining social functions, such as lifelines, logistics, information systems, medical services, and public security, would continue without interruption.

As part of these preparations, we formulated the *Guidelines for Pandemic Influenza Preparedness* in 2009. We distributed these to all Hitachi Group companies in fiscal 2010, after translating them into English and Chinese. In fiscal 2011, we further



Pandemic simulation drill

enhanced preparedness by collaborating with three Hitachi Group service businesses to conduct a joint drill based on the scenario of a novel influenza pandemic.

**†1 Pandemic**: An infectious disease epidemic that spreads worldwide

# Tabletop Exercise to Prepare for Large-Scale Disasters

Hitachi, Ltd. has held annual disaster simulation drills since fiscal 1998—so far at 19 sites throughout Japan. For these drills, teams of people make decisions under disaster scenarios that have been developed over three to six months and include a range of crises. The objective is to verify and improve the effectiveness of prevention plans for large disasters. In fiscal 2011, we held a drill in Shizuoka Prefecture, where there is special concern about the potential for an earthquake in the Tokai region and the simultaneous occurrence of three large earthquakes known as the Tokai, Tonankai, and Nankai earthquakes. Business site risk managers participating in the drills reported their experiences and results at a general assembly for around 200 officers responsible for handling risk. We are constantly improving BCPs to address large disasters by sharing the results of these tabletop drills. We also hold monthly drills that use a satellite communications system.

# Providing Information through Our Internal Website

The Hitachi Group internal website has provided a risk response page for all Hitachi employees since 1997. This internal website features information from wire services and Japan's Ministry of Foreign Affairs as well as problems that Hitachi Group employees have experienced. If emergencies arise, the site alerts employees and posts responses based on top management policies and the extent of damage. The risk response website adds or updates around 80 news items every day. The average number of page views per month has reached 500,000, illustrating that the site is playing an essential role in Hitachi's risk measures. This site conveyed top management policies and reported

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on overall Group damage from the Great East Japan Earthquake. This site also provides employees with e-learning about threats and measures against H1N1 influenza.



Influenza page on e-learning site

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# Compliance

Raising awareness and reinforcing compliance among Hitachi Group companies worldwide during international expansion to ensure fair competition.

# Formulating and Ensuring Awareness of the Hitachi Group Codes of Conduct

Hitachi, Ltd. formulated the Hitachi Group Codes of Conduct in 2010 as specific common conduct codes for the Group. This was in line with the shift to a new Group management structure to mark Hitachi's centennial in that year. Based on translations of this document into 17 languages, consolidated subsidiaries worldwide then formulated their own codes of conduct in line with the same content.

To ensure broader awareness of the codes, we produced the *Hitachi Group Codes of Conduct Handbook* in fiscal 2011 as a resource for the entire Hitachi Group. We produced English and Chinese versions of a Japanese-language e-learning tool that teaches appropriate behavior, presenting specific examples to publicize initiatives to Hitachi Group companies outside Japan. We are extending training to business sites outside Japan, including Hitachi Group companies. We are asking managers



to submit a written statement confirming that they have taken the course and are pledging to comply with the Hitachi Group Codes of Conduct.

Hitachi Group Codes of Conduct Handbook

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### **Chapter 7: Responsibilities of Top Management**

Supplementary Provision Hitachi Group Implementation of Codes of Conduct

WEB Hitachi Group Codes of Conduct http://www.hitachi.com/csr/csr\_images/codeofconduct.pdf

# **Implementing Corporate Ethics Month**

Corporate ethics and compliance are the bedrock of all our activities. Every October has been Hitachi Group Corporate Ethics and Compliance Month since fiscal 2009. Top management leads the way in improving adherence to ethics and complying fully with laws and regulations. Executives and employees are making compliance central to all their actions.

In fiscal 2011, we distributed 230,000 copies

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of the Hitachi Group Codes of Conduct Handbook to publicize—to all employees of Hitachi, Ltd. and Group companies—top management's messages and more extensively inform employees about the Hitachi Group Codes of Conduct. We posted the Hitachi Group Codes of Conduct Online Game on our intranet as an entertaining way of learning about compliance, helping to improve compliance awareness at all Hitachi Group companies worldwide.

# **Compliance Reporting System**

We instituted a company-wide compliance reporting system to prevent illegal and unethical behavior, to promptly address infractions, and to enhance our ability to self-regulate. Employees can report directly to the Compliance Division at Hitachi or to an outside attorney.

This system can be used not only by Hitachi employees but also by former employees, business partners and temporary staff. Another system— Channel to the Board of Directors—has been introduced to allow employees to report problems anonymously directly to Hitachi's board of directors.

# Preventing Bribery of Foreign Public and Other Officials

Our 2012 Mid-Term Management Plan focuses on Social Innovation Businesses and strategic progress in emerging countries. Global compliance with antibribery laws is now becoming ever more important, as companies engaged in the global marketplace face tighter controls on bribery of foreign public officials. For example, the UK and the US enacted new bribery prevention laws. In fiscal 2008, we formulated corporate rules and guidelines to prevent bribery worldwide, and we are ensuring adherence through audits and education. In fiscal 2011, we conducted audits and education at local entities within Hitachi Group companies, particularly those in emerging countries.

In July 2011, around 210 compliance officers from the Group attended a lecture on trends in bribery prevention laws and regulations in the UK and the US. In March 2012, around 220 officers attended an attorney's lecture on trends in bribery prevention laws and regulations in China and Southeast Asia. To redouble our commitment to preventing bribery, we explained trends in Asia at a meeting of Hitachi company presidents and top executives from local companies in Asia in January 2012.

# Preventing Violations of the Antimonopoly Law

The Hitachi Group operates on the principles of "conformance with the law and business ethics" and "fair and disciplined competition."

Unfortunately, however, Hitachi, Ltd. was penalized in September 2006, October 2008, and March 2009 for violating Japan's Antimonopoly Law in bidding for public works projects in Japan.

We deeply regret these violations, and have worked hard to boost awareness of compliance issues in several ways, including individual interviews with sales staff, and by publicizing messages from top executives.

In June and July 2011, we conducted training on Japan's Antimonopoly Law for 661 sales managers. We audited Hitachi Group companies and internal

# TOPICS

Hitachi Data Systems Selected as One of the 2012 World's Most Ethical Companies In March 2012, Ethisphere Institute, a US think tank that specializes in corporate ethics and CSR, selected Hitachi Data Systems, a Hitachi Group company headquartered in the United States—for the second consecutive year—as one of the World's Most Ethical Companies.

For this award, the institute evaluates several thousand companies from 36 industries in more than 100 countries, choosing one or two companies per industry. Again this year, Ethisphere recognized the commit-

ment to compliance of Hitachi Data Systems' management.



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business sites for their compliance with the Japan Antimonopoly Law. We intend to enhance the compliance awareness of all employees by stepping up auditing and education.

# Protecting Personal Information and Information Security

The Hitachi Group emphasizes two points in policies to protect personal information and information security:

# (1) Precautionary measures and prompt security responses

We classify assets to be secured and take safeguarding measures based on vulnerability and risk. We also have an emergency manual for security breaches, based on the assumption that these are inevitable, not just possible.

# (2) Promotion of stronger ethical and security awareness among data users

We have prepared a curriculum tailored to personnel levels—staff, managers, etc.—and are working to raise the prevailing sense of ethics and security awareness through Group-wide education using e-learning. We are also using audits to identify and address problems early on.

# **Protecting Personal Information**

We established a personal information protection management system based on our Personal Information Protection Policy. With this system, through e-learning courses for all employees and through periodic audits, we ensure the Company-wide protection and safe handling of personal information.

Hitachi, Ltd. received Privacy Mark<sup>+1</sup> certification in March 2007, and we are doing our best to have our certification renewed for a third time in March 2013. As of March 2012, 69 Hitachi Group companies had received the Privacy Mark. In July 2007, the Odaira Memorial Tokyo Hitachi Hospital became the first corporate medical institution in Japan to earn Privacy Mark certification. The Hitachi Yokohama Hospital and Ibaraki Hospital Center (both located in Japan) were also certified. These hospitals work hard to protect and carefully handle the personal information of patients and others.

Hitachi also strives to safeguard personal information globally at Group companies outside Japan based on the Personal Information Protection Policy and in accordance with all applicable laws and regulations, including social requirements.



Privacy Mark

WEB Personal Information Protection Policy http://www.hitachi.com/privacy-e/index.html

†1 Privacy Mark: A third party certification granted to businesses approved by an assessment institution as taking appropriate security management and protection measures on personal information (granting institution: Japan Information Processing Development Corporation). Effective since April 1998.

# **Information Security Initiatives**

As a global supplier of total solutions supported by intelligent ICT systems, the Hitachi Group maintains information security and other regulations. We use our information security management system to safeguard customer information, as well as technical and other confidential information.

The Information Security Committee, which the Chief Information Security Officer chairs, determines our information security policies and measures. The Information Security Promotion Council and other bodies convey decisions to internal business sites and Hitachi Group companies. Information security officers at those sites and companies then inform people in their workplaces. In line with our information security management cycle, we maintain and improve security levels in several ways, including using extensive information security procedures, holding security education classes for employees, and auditing information security.

We formulated the Three Principles for Preventing Leakage of Confidential Information, with the goals of ensuring the highest level of care for confidential information and preventing leaks. Our policies ensure that we minimize any leaks by promptly contacting customers, reporting to government agencies, investigating causes, and acting to prevent recurrences. Hitachi Group companies worldwide take these steps to prevent information leaks: using Hitachi *Hibun* encryption software and

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security PCs that do not store data; employing Hitachi Katsubun electronic document access control and expiration processing software; maintaining ID management and access control by building an authentication infrastructure; and by using email and website filtering.

To ensure information security in collaboration with our suppliers, we confirm and review their information security measures based on Hitachi's information security standards before allowing them access to confidential information. We have provided information security and educational tools to approximately 8,800 suppliers (procurement partners), requiring them to remove business information from private personal computers and thereby prevent information leaks. As a result of

#### **Three Principles for Preventing Leakage of Confidential Information**

Principle 1.

Any person may not take Confidential Information out of the Company's premises in principle.

Principle 2.

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

#### **Basic Approach to Information Security Governance**

these efforts, we again experienced no information leaks in fiscal 2011.

Hitachi Group companies worldwide are reinforcing information security management in line with the Global Information Security Administration Standards. We have set up PC security and other priority measures, coordinating extensively with staff in the United States, Europe, Southeast Asia, and China to ensure that these measures are being taken. We check on progress on the security of companies outside Japan through the Global Security Self Check and the Important Security Measures Implementation Survey.

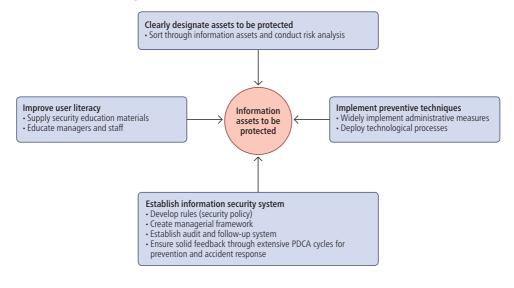
See the Information Security Report for more details on information security.

WEB Information Security Report (only in Japanese) http://www.hitachi.co.jp/csr/csr\_images/securityreport.pdf

# **Protecting Personal Information, Information Security Audits and Inspections**

The Hitachi Group promotes information security based on the PDCA (Plan, Do, Check, Act) cycle for the information security management system. Hitachi conducts annual personal information protection and information security audits at all divisions.

The president appoints officers to conduct independent audits. These officers are not allowed to audit their own units, underscoring our commitment to fairness and independence in auditing. We



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implemented audits at 298 domestic Hitachi Group companies, and we are confirming the results. For 517 Hitachi Group companies outside Japan, we use the Global Security Self Check to ensure Groupwide auditing and inspections.

We implement Confirmation of Personal Information Protection and Information Security Management once every year as a voluntary inspection of workplaces at business units. We conduct monthly Confirmation of Personal Information Protection and Information Security Management assessments at approximately 500 operations that handle important personal information. This regular check-up ensures effective safety management and implementation.

# Education on Personal Information Protection and Information Security

To consistently protect information, it is crucial for everyone to strive daily to acquire the knowledge needed for handling information and to remain strongly aware of issues. For this reason, we hold annual e-learning courses on personal information protection and information security for all directors, employees, and temporary employees. At Hitachi, Ltd., nearly 100 percent of the approximately 40,000 employees take these courses. We provide specific additional training, especially for new employees, new managers, and information system administrators. We have prepared a wide range of information security programs based on target, role, and reason to prevent human errors, the prime cause of information security incidents. These programs combat cybercrime by addressing such issues as risk prediction and social engineering.

Our educational programs are available to Hitachi Group companies in and outside Japan to assist in Group-wide initiatives to teach personal information and information security.

# **Export Control**

For basic export control, we use the Hitachi Standards of Corporate Conduct, which states that we "shall help maintain international peace and security through compliance with trade laws and regulations." We adopted rules for controlling security exports based on this policy in 1987, and we strive for the strictest possible export controls. This means promoting legal compliance and screening for destination countries and regions, end use and end-user of all goods and technologies intended for export. In addition, we promote Group-wide export controls by providing guidance to all Hitachi Group companies on the rules and organizations for export control. Also, we support education and compliance training to make certain that every Hitachi employee follows the same export control policies. In fiscal 2011, we provided practical training on export control through working-level meetings and workshops for Group companies in Malaysia and South Korea. We increased the range of basic training by providing a Chinese-language version of a Japanese e-learning course.

In fiscal 2011, the Hitachi Group committed no material export control violations.

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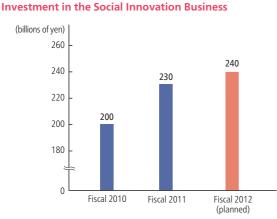
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# **Innovation Management**

Since our founding, the Hitachi Group has actively pursued R&D to fulfill the Corporate Credo of contributing to society through the development of superior, original technology and products. This continuous innovation with R&D as its core, is the driving force of sustainable growth for the Hitachi Group.

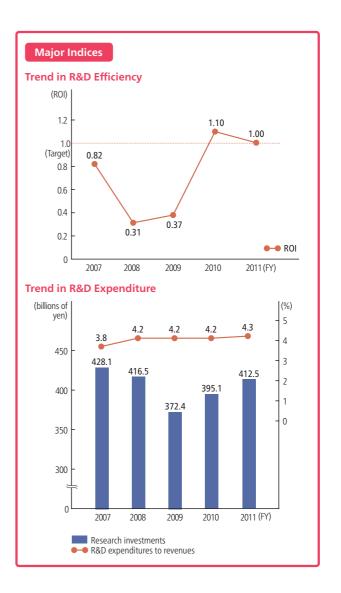
# **Research and Development Strategy**

The Hitachi Group invests 670 billion yen, which is approximately 60% of the total R&D expenditure for FY 2010-2012, for R&D in Social Innovation Business areas to accelerate R&D promoting growth in the global market for this business area. In April 2011, the R&D structure was reformed for the first time in 25 years. Locally led research was expanded by increasing the number of researchers employed in the four research hubs outside Japan, while consolidating the eight research laboratories in Japan into three. Under this new structure, technology developments supporting global Social Innovation Business will be accelerated, and measures put in place to increase R&D efficiency. Further, the Technology Strategy Office was established within the Research and Development Group to oversee Group-wide technology strategies and to formulate medium-to-long-term technological and development plans linked with business strategies.



### **Research and Development Goals**

The R&D expenditure of the Hitachi Group is being maintained at around 4 percent of total revenue. For R&D investment efficiency, the target is to deliver an ROI<sup>+1</sup> (operating income divided by R&D expenditure) of greater than 1.0. The number of papers accepted by the Institute of Electrical and Electronics Engineers (IEEE), the world's largest professional technology association, is used as one benchmark for measuring Group technology standards and activities worldwide. In fiscal 2011,



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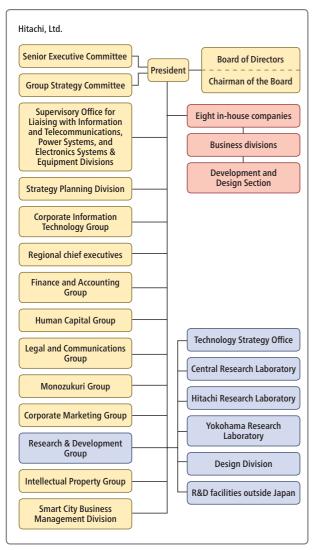
the IEEE adopted 41 research papers from the Hitachi Group, ranking us third in the electronics industry worldwide and first in the electronics industry in Japan.

†1 ROI: Return on investment

# Global Research and Development Structure

The research and development structure of Hitachi, Ltd. includes the Technology Strategy Office, the Central Research Laboratory, the Hitachi Research Laboratory, the Yokohama Research Laboratory, the Design Division, and five research bases outside Japan. The Technology Strategy Office prepares

#### R&D Organization of Hitachi, Ltd.

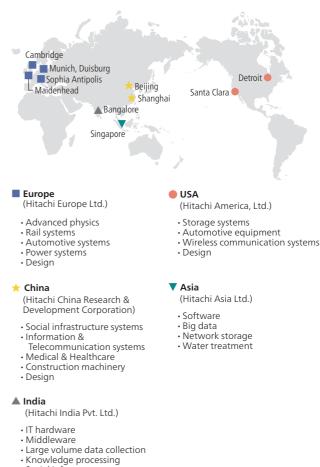


medium-to-long-term technology and development plans linking corporate research centers and business divisions in order to accelerate expansion in areas of business priority. By proposing Hitachi-wide strategic projects, the Office formulates technology strategies to achieve Hitachi management policies.

In 2011, approximately 150 research staff were employed in centers outside of Japan but this number will be doubled by fiscal 2012. Further, the policy of localization will be thoroughly pursued by raising the proportion of locally-employed R&D staff in overseas centers to over 90 percent with a target of more than 30 percent doctoral degree holders, increasing collaborations with government, business, and research institutions in the region while pursuing locally-initiated R&D based on specific regional needs. Emphasis will be research themes centering on Social Innovation Business being promoted in each of the five global bases.

#### Corporate R&D Worldwide

Social infrastructure systems



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# **R&D Plan and Investment**

At Hitachi, Ltd., 70 percent of R&D expenditure is for Sponsored and Advanced sponsored research from Hitachi in-house companies and Hitachi Group companies, and the remaining 30 percent is for Basic and platform research from corporate funds. Sponsored and Advanced sponsored research have the goal of expanding priority businesses, and target practical application within three to five years. Basic and platform research is based on the mid-to-long-term Technology Plan, and aims to create innovative technologies forming the base for future core businesses.

# Prioritizing R&D Units under the Mid-**Term Management Plan**

The Hitachi India R&D Centre (HIL) was established in Bangalore Karnataka, India, as Hitachi's first research and development base in India. Its role is to help expand Hitachi business to more effectively serve the needs of the swiftly growing Indian economy.

Researchers are helping Hitachi Group companies enter and expand the market in India by studying local market requirements while promoting market-oriented technological R&D that improves existing products. They also carry out locally-oriented research to pioneer new business areas. The Centre will conduct research in collaboration with Indian universities and companies to ensure more effective advanced research. The Centre started with 10 researchers, but the number will be doubled by fiscal 2015 through local hiring to contribute to business expansion and cultivation in India.



Hitachi India R&D Centre

# VOICES

**Helping Globalize Business with R&D** from China



Chen Yangqiu Vice President and General Manager, Management & Planning Department, Hitachi (China) Research and Development Corporation (HCR&D)

With "globalization of business" as a key phrase in Hitachi's management strategy, R&D staff in overseas research centers are being increased and R&D based on local needs is being promoted. The anticipated role of HCR&D is to identify specific market-based needs in China and engage, as the Group's Chinese R&D unit, in R&D that matches those needs. The 12th Five-Year Plan announced by the Chinese government in fiscal 2011, clearly identifies the promotion of urbanization, stimulating development in priority regions, and the strategic promotion of development in emerging industries. This Plan anticipates expansion of needs in upgrading urban infrastructure such as power systems, transportation and water supplies, applying information technologies developed by advanced information industries, and research and technology in areas such as medicine and healthcare. This will lead to major business opportunities for Hitachi in China.

HCR&D is reinforcing technology collaborations among Hitachi Group companies in China, and through cooperative relations with universities such as Tsinghua University, as well as training R&D staff. Also, by producing many research achievements from China, such as patents, research papers, and product and systems development, HCR&D will contribute to expanding Hitachi operations in China, and also to China's technological progress.



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# Participating in International Societies and Conferences

Hitachi is working to receive recognition from the IEEE, the world's largest professional association for the advancement of technology, while working with the IEEE to establish a new award in Hitachi's area of business focus.

In January 2012, Hitachi received the IEEE Milestone for the world's first "Practical Field Emission Microscope." Established in 1983, the IEEE Milestone honors outstanding technological innovations in areas of technology such as in the electrical, electronics, information and communication engineering that occurred at least twenty-five years ago, and that have contributed substantially to the advancement of society or industry.

In March 2012, the Technical Field Award for Innovation in Societal Infrastructure Award was established within the IEEE, sponsored by Hitachi. Through this award, Hitachi hopes to contribute to technological innovation and new industries worldwide in Social Innovation Business over the next 10 to 20 years.



IEEE Milestone presentation ceremony

# Noteworthy R&D Achievements

Hitachi, helping conserve the environment through CCS-IGCC research, is exploring technology to stably burn fuel that contains high concentrations of hydrogen while reducing nitrogen oxide (NO<sub>x</sub>) emissions with a method called Integrated Coal Gasification Combined Cycle with  $CO_2$  Capture (CCS<sup>+1</sup>-IGCC<sup>+2</sup>). In trial combustors using this technology, NO<sub>x</sub> emissions were suppressed to below the environmental limit,<sup>†3</sup> which has been an

issue when reducing CO<sub>2</sub> emissions from coal. This technology is being developed as part of a project of the New Energy and Industrial Technology Development Organization, Japan, for zero-emission coal-fired power generation technologies, in which Hitachi has participated since fiscal 2008.

Hitachi will continue to contribute to the conservation of the global environment through R&D in energy, by promoting the wider use of environmentally conscious and highly efficient power generation technologies based on effective use of resources, including thermal power generation.

- 1 CCS: Carbon dioxide capture and storage. A technology to collect and store carbon dioxide and prevent atmospheric emissions of this greenhouse gas.
- **†2 IGCC**: Integrated coal gasification combined cycle. A combined cycle system that generates power from the steam from gas turbines and the heat emitted by those turbines, gasifying coal and reacting the carbon monoxide from that gas with the hydrogen in steam.
- **†3** Environmental limit: The Air Pollution Control Act restricts the NO<sub>x</sub> emissions density of a gas turbine to 70 parts per million (16 percent of the oxygen density of critical emission gases). Some prefectures in Japan have established even more stringent regulations.

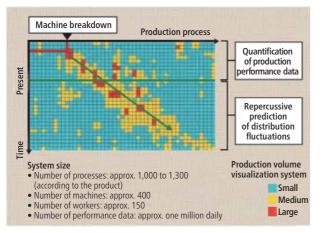
# Visually Forecasting Production Fluctuations after Mishaps

Against the backdrop of business globalization, production sites and distribution networks have expanded on a global scale. Unexpected disasters such as the Great East Japan Earthquake and the flooding in Thailand are resulting in increasing cases of supply chain disruption. At Hitachi, production management technology has been developed based on a statistical model to accurately predict production output and fluctuations in the production line due to events such as component shortages or machinery breakdown. This technology allows swift contingent plans to be executed in order to prevent delays in deliveries or declines in production volume.

A color visualization system was proposed so that when predictions of future fluctuations are made, the outcome can be easily understood by anyone. For example, if a machine breaks down, there is a display of the impact on later processes based on empirical production data. This information is shown as raindrops that range from red for a major impact to yellow for a medium impact and blue for almost no impact. When a problem occurs, the system shows highly accurate predictions of the

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impact on production lines five days later or for the volume that a line can produce in a week.



Production volume visualization system

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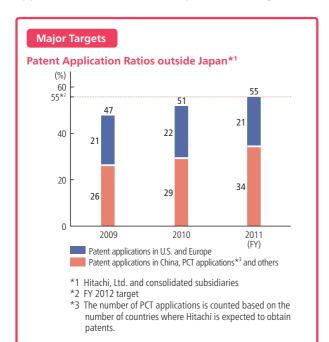
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# **Intellectual Property**

Intellectual property (IP) is a key element of Hitachi's business strategy. We are developing a global patent portfolio and promoting IP activities focusing on Social Innovation Business. We are also conducting anti-counterfeiting activities to protect Hitachi's brand, and are working on international standardization to expand markets in our business areas.

# **Globalization of IP Activities**

It is important to build a global patent portfolio to engage effectively and competitively in the global marketplace. We have worked to increase our patent application ratio outside Japan from 47 percent in fiscal 2009 to 55 percent by fiscal 2012. In fiscal 2011, this ratio reached 55 percent; we successfully achieved our goal a year early. Specifically, we are increasing patents and patent applications in China and emerging countries across Asia. To obtain patents efficiently in several countries or regions, we file international patent applications (PCT: Patent Cooperation Treaty).



# **Focused Areas of IP Activities**

To support our business strategy, we focus on the Social Innovation Business in our IP activities. Examples of our focuse on this technology:

- Highly reliable internet clouds
- Smart grids
- Energy (coal-fired thermal power etc.)
- Green mobility (inverter, motor etc.)
- Healthcare (proton beam therapy system etc.)

# **Contributions to Hitachi's Business**

We believe that protecting our business by IP is crucial. We are building a patent portfolio focusing on technologies consistent with Hitachi's strengths from the standpoints of market needs and technology trends. With this patent portfolio, we can prevent other companies from using our technologies without our authorization and protect our business by differentiating our products and services. In some cases, we use our patent portfolio to have cross-licensing agreements with other companies to promote smooth business activities without the constraint of IPs from those companies.

# Reward System for Employee Inventions

We motivate employees on the R&D frontlines with a reward system for new inventions. To ensure that the reward system is operated fairly and transparently, we set standards to evaluate inventions and disclose these standards to employees. We also have a mechanism for receiving inquiries for paid rewards and opinions on the reward system.

For example, we have developed an invention information system to promote communication between inventors and business divisions using their inventions. Through this system, inventors can ask the business divisions for patent implementation status and check the evaluation standards used to calculate the rewards for their inventions.

In addition, from fiscal 2005, we have given awards to the top 100 inventors. In year 2006, we

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also awarded the top 50 young inventors (under 35 years old) who received patent application rewards based on patent applications filed within five years of joining Hitachi.

# **Respect for IP**

We respect IP rights (IPRs) of others, as we expect them to respect ours. We follow in-house rules<sup>†1</sup> and conduct preliminary searches of others' patents before undertaking R&D on new products and technologies to avoid IPR infringements. For IPRs that belong to others, we obtain licenses from IPR holders before we use them. If any company is found to have infringed our IPRs, we encourage them to acquire the necessary license, and will take legal action, if necessary.

11 In-house rules: The Hitachi Group Codes of Conduct state "We will respect the intellectual property of other parties. We will prevent violations of other parties' intellectual property rights in advance and, for the smooth progress of business, we will investigate other parties' intellectual property rights beforehand when engaged in research, development, design, production and sales of new products or new technologies, and implement appropriate measures when any doubts arise."

# **Anti-counterfeit Activities**

To maintain and increase Hitachi's brand value, we have a rigorous regime against activities that infringe Hitachi's trademark rights, such as making and selling counterfeit goods carrying the Hitachi brand and illegally applying for or registering trademarks similar to the Hitachi brand. To ensure Hitachi's further growth as a global company, we need to use our trademark rights to protect our brand against infringements by third parties. The Hitachi brand is now registered as a trademark in more than 200 countries and regions.

The usual anti-counterfeit action is to send warnings and/or report to government agencies based on legal protection against manufacturers, distributors, wholesalers and vendors who infringe Hitachi's trademark rights. Recognizing, however, that the supply of counterfeit products exists only where there is demand, we are also educating consumers about counterfeit products, to attack counterfeit products from both the supply and demand sides.

Cooperation from local law enforcement and government agencies is essential in dealing with

infringements. We contact Japan's Ministry of Economy, Trade and Industry (METI), Ministry of Foreign Affairs and other governmental bodies, as well as law enforcement agencies, governments and authorities in other countries and regions. We also hold seminars and workshops in order to exchange information and views seeking their cooperation for our anti-counterfeit activities.

# International Standardization Activities

We actively support international standardization, and we contribute to standardization organizations. For example, we have one employee who is the IEC (International Electrotechnical Commission) vicepresident. We also help to establish international standards for technologies developed in Japan, such as biometrics and encryption.

For example, as Technical Committee Chairman at Ecma, we took a leadership position to standardize interfaces for coordinated control of IT equipment and air conditioning in environmentally conscious data centers. An Ecma standard "Smart Data Center Resource Monitoring and Control" was issued in December 2011. For smart cities, as a member of the International Standard Innovation Technology Research Association, we worked to establish a new subcommittee, TC268 SC1 "Smart Urban Infrastructure Metrics," in the International Standardization Organization (ISO) in February 2012.

Hitachi's standardization performance received a METI Minister's Award at METI's Industrial Standardization Awards in fiscal 2011.

# **Cultivating Human Capital**

We drive IPR initiatives forward by cultivating employees who are highly skilled and globally aware. As of April 1, 2012, our Intellectual Property Group had 99 registered patent attorneys and six lawyers registered in the US and the UK. Every year, we send four to six employees from our Intellectual Property Group to patent and law offices in the US and Europe for internships.

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# Brand Management

To grow our Social Innovation Business worldwide, we must improve our brand recognition and reputation in every market, establishing the Hitachi brand in the Social Innovation **Business arena**.

We communicate globally with stakeholders about the measures needed for a fuller understanding of Hitachi so that we can increase the value of and minimize the risk of damage to our brand.

# **Global Brand Strategy**

For developing Social Innovation Business globally, we need to communicate our vision and brand promise to stakeholders. In many markets, people still perceive Hitachi as an appliance or consumer products manufacturer; on the other hand, Hitachi is barely known in many emerging markets. So, to establish a reputation as a Social Innovation Business, we must promote the brand externally through advertising, public relations, and CSR initiatives, while raising our own employees' awareness of the brand promise and encouraging employees to engage in activities based on that promise. Together as One Hitachi, we will evaluate the effectiveness of our activities to improve the value of the Hitachi brand.

In fiscal 2011, we conducted surveys in 8 of the 11 key regions<sup>†1</sup> targeted in the New Globalization Plan within the Mid-Term Management Plan. Because our traditional key markets have a strong perception of Hitachi as an appliance or consumer products manufacturer, we need to build an image there as a Social Innovation company. In most of the 8 regions, however, we still have limited brand recognition and our brand image remains vague. We will plan and execute fiscal 2012 initiatives based on these survey results, and then repeat the survey to check the effectiveness of the steps taken.

**†1 11 key regions**: The following 11 regions were selected from global markets as major business opportunities: Indonesia, Brazil, Vietnam, Turkey, China, Central/Eastern Europe, India, Russia, Saudi Arabia, South Africa, and Egypt.

# **Global Brand Strategy Development** Structure

To identify local needs, the Hitachi Group Brand Committee asked local brand committees to propose local brand strategies based on their own marketing activities. Drawing on the views of the committee, the Brand Strategic Investment Committee then adds in a company-wide global strategy element from the perspective of the entire group. The global brand strategy that we ultimately implement is therefore the product of collaboration among local operations, Hitachi Group companies, and Hitachi, Ltd.

# HITACHI **Inspire the Next** Corporate statement logo

WEB Hitachi Brand Strategy http://www.hitachi.com/about/vision/brand/

# Evaluating Our Global Brand Strategy

We conduct an annual survey in key markets on the degree of recognition and the image of the Hitachi brand to confirm the effectiveness of our global brand strategy. We use these findings to review brand initiatives in line with the 2012 Mid-Term Management Plan, working to boost brand value.



# **Global Brand Strategy Development Structure System**

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# **Improving the Global Brand**

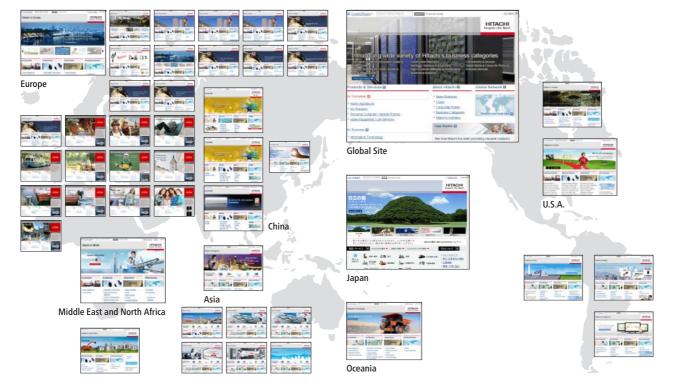
Based on the management policy of growing our Social Innovation Business worldwide, we are shifting the focus of our corporate communication activities to outside of Japan. We are particularly interested in strengthening our brand in the 11 key regions identified in the New Globalization Plan. In this way we promote Social Innovation Business directly to customers through, for example, corporate advertising campaigns and events such as the Group-wide Hitachi Exhibition 2011 held in Brazil. In the advanced nations, we are promoting a greater understanding of Hitachi through social media and by supporting the business forums that world opinion leaders attend and engage in.

# Web Management

We have responded to increased Internet use worldwide by enhancing our Web portal sites<sup>†1</sup> in every country and region, making them the key tools for publishing important information. We post content on Hitachi Group Social Innovation Business initiatives, as well as convey a consistent Group brand message. In recent years especially, we have built websites in the emerging nations that we position as key markets. As well, we create content on important business areas in those countries and regions.

At the end of March 2012, we had 60 websites in 28 languages covering 47 countries and regions, unifying our brand image with a common design. Responding to the recent surge in social media users, we have created a policy for social media use in the Hitachi Group that is the base for an active campaign to use social media to strengthen relations with stakeholders.

**11 Portal site:** Website unifying diverse web pages
WEB Hitachi Global Site http://www.hitachi.com/



#### Hitachi's Global Portal Site

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# **Internal Brand Management**

Our employees deal directly with stakeholders, making them important contact points for building the brand. To ensure that employees thoroughly understand and apply our brand vision, mission, and values, we promote the Hitachi Group's brand promise and brand awareness. We also use internal initiatives—across the globe—to encourage desirable employee behavior. In fiscal 2011, 981 employees attended five brand seminars worldwide.

We strengthen employee awareness of the Hitachi brand by giving out awards called The Inspiration of the Year Global to initiatives that help improve our brand's value. In fiscal 2011 however, we suspended the awards because they might have interfered with recovery from the Great East Japan Earthquake. We have since worked with operations outside Japan to fundamentally review the awards system, creating a new system where applications are screened and awards are presented locally based on a common set of standards. The awards will be re-launched in fiscal 2012.

To promote understanding of our brand in a more localized way, we are currently working with communications departments in Asia and Europe to develop an international brand program. We are also surveying Hitachi Group employees in Asia on how well they understand the Hitachi brand, using this information as a reference for creating brand education content.

# Evaluating the Effectiveness of Brand Initiatives

We survey customers' and other stakeholders' opinions of communications initiatives based on our brand strategy. We then use this information to make improvements. We also set global benchmarks that we use to improve the effectiveness of brand initiatives. In fiscal 2011, we held the Hitachi Exhibition 2011 in Brazil, one of our 11 key regions. This event helped promote understanding of the Hitachi brand. In a survey of stakeholders visiting the exhibition, 85 percent felt that their understanding of Hitachi's business had improved.<sup>†1</sup>

# **Reputation Management**

Globally, all Hitachi Group companies share the Hitachi brand. This generates group synergies for innovation and trust in the brand. We recognize that accidents and rumors can damage the brand globally, so we have set up communication divisions at regional headquarters outside Japan to handle risks to our reputation. These divisions ensure the broad recognition of our activities by regularly communicating with the media and government agencies, as well as members of nongovernmental organizations and opinion leaders in every country who are particularly interested in human rights and environmental issues. These divisions work hard to correct public misperceptions about our operations.

In fiscal 2011, we conducted a pilot survey in Europe that examined Hitachi's reputation in relation to seven areas including leadership, track record, and stakeholder relations. Targeted at both employees and external stakeholders, the survey provided valuable hints on key factors to improve our reputation and the role and future direction that stakeholders perceive for Hitachi. We have also introduced a management system for Web inquiries that can be used across the Group for opinions, complaints, and questions received from customers. These inquiries are being kept as a valuable source of information for reputation management.

Hitachi, Ltd. and regional headquarters outside Japan collaborate to mitigate risk to the brand and resolve problems arising from accidents or rumors. Moreover, they seek to proactively prevent the spread of the impact and future occurrences by investigating similar and related incidents in other areas or businesses.

# Action against Infringement of the Brand Value

The Hitachi brand is an important and clear "promise" to all stakeholders of our fundamental worth, and that includes our management philosophy, social mission, and specific corporate activities. To reach our goals, it is essential to communicate continuously and consistently with one voice based on the integral principles of the Hitachi brand.

**†1 Questionnaire**: October 2011

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### Management of the Hitachi Brand Impression

We globally unified the presentation and use of our logo and trademark to roll out our message as a single global entity, or *One Hitachi*. The *Hitachi Group Identification Standards Manual* lays out how to use the logo. We have integrated visual impressions of the Hitachi brand, by developing a design system for each medium.

## Safeguarding the Hitachi Brand

We provide legal protection for the Hitachi brand by working hard to eliminate counterfeit appliances and parts in such high-risk regions as China, the rest of Asia, the Middle East, and Africa. In countries or regions where brand infringements are particularly widespread, we collaborate with local companies to step up anti-counterfeiting programs.

Photovoltaic system at Omika Works, Hitachi, Ltd.



# Pursuing corporate environmental management globally to contribute to realizing a sustainable society and to conserve the environment through the development of superior, original technology and products



**Shigeru Azuhata** Executive Vice President and Executive Officer Hitachi, Ltd. Hitachi Group Chief Environmental Strategy Officer After the recession caused by the Lehman Brothers collapse, I had a refreshed feeling from the economic restoration plans designed by developed nations, which created new businesses and employment by addressing global environmental issues. They are using environmental technologies to revitalize their economies. But as these plans went into action, the Great East Japan Earthquake struck, and more recently we are facing concerns that an economic crisis originating in Europe will trigger another global recession. This situation has underscored the importance of balancing environmentally viable post-earthquake reconstruction plans with economic revitalization. Against this background, the Hitachi Group will continue to emphasize Social Innovation Business to realize social sustainability.

The Hitachi Group's Environmental Vision centers on preventing global warming, conserving resources, and preserving ecosystems. We aim to prevent global warming by helping reduce annual CO<sub>2</sub> emissions by 100 million tonnes by fiscal 2025 through making all our products and services Hitachi Eco-Products, which have lower environmental burden. We are also promoting energy conservation in several ways, notably by introducing highly efficient equipment in our factories and offices. For resource conservation, our waste reduction programs are already firmly established within the Hitachi Group. To further enhance product reuse and recycling, we are developing a new technology to recover rare earth magnets from used products. To help preserve ecosystems, we are continuing to carefully manage chemical substances, and have created a technique to assess the impact of our business activities on ecosystems.

We have sent more people from Japan to North America, Europe, China, and elsewhere in Asia to reflect regional environmental policies in our business activities, and we are communicating more effectively with stakeholders.

We will continue to tackle environmental issues based on our Corporate Credo of contributing to society through the development of superior, original technology and products, pursuing both environmental protection and business growth.

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# **Environmental Activities Worldwide**

# In the Hitachi Group, we contribute to environmental protection by acting globally



Energy saving by high efficiency data center Hitachi delivered a high efficiency modular cooling solution, which adopts the use of natural circulation of refrigerant, in London data center. Hitachi is contributing to saving the energy consumption of the data center. (Hitachi Plant Technologies)

Reducing CO₂ Emissions ▶ p. 055



Introducing electric vehicles In the UK, zero-emission electric vehicles are introduced to enable customers to experience the benefits as well as the differences from conventional cars.

(Hitachi Capital Vehicle Solutions Ltd.)

Preventing Global Warming > pp. 069–071

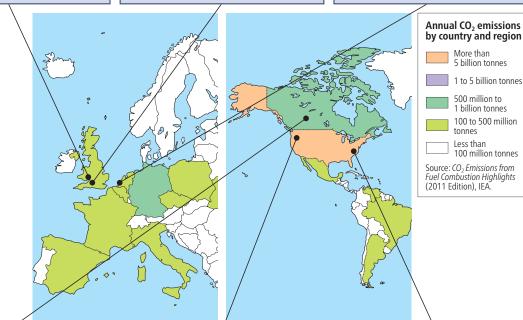


**Reducing waste at an equipment plant** At a construction equipment manufacturing plant in the Netherlands, a system was introduced to remove chemical sludge from the painting process.

(Hitachi Construction Machinery Co., Ltd. (Europe) NV)

Reducing Waste ▶ pp. 071–073

### Europe



### Americas



**Supercritical pressure thermal power plant** The Keephills 3 power plant, operated jointly by Canada's Capital Power Corporation and TransAlta Corporation, contributes to an annual reduction in CO<sub>2</sub> emissions of 190,000 tonnes.

Reducing CO₂ Emissions ▶ p. 055



Raising employee environmental awareness Activities raise employee environmental awareness in the United States. Waste reduction reports, educational materials, and achievements by each office are publicized and shared company-wide. (Hitachi Consulting Co., Ltd. (USA))

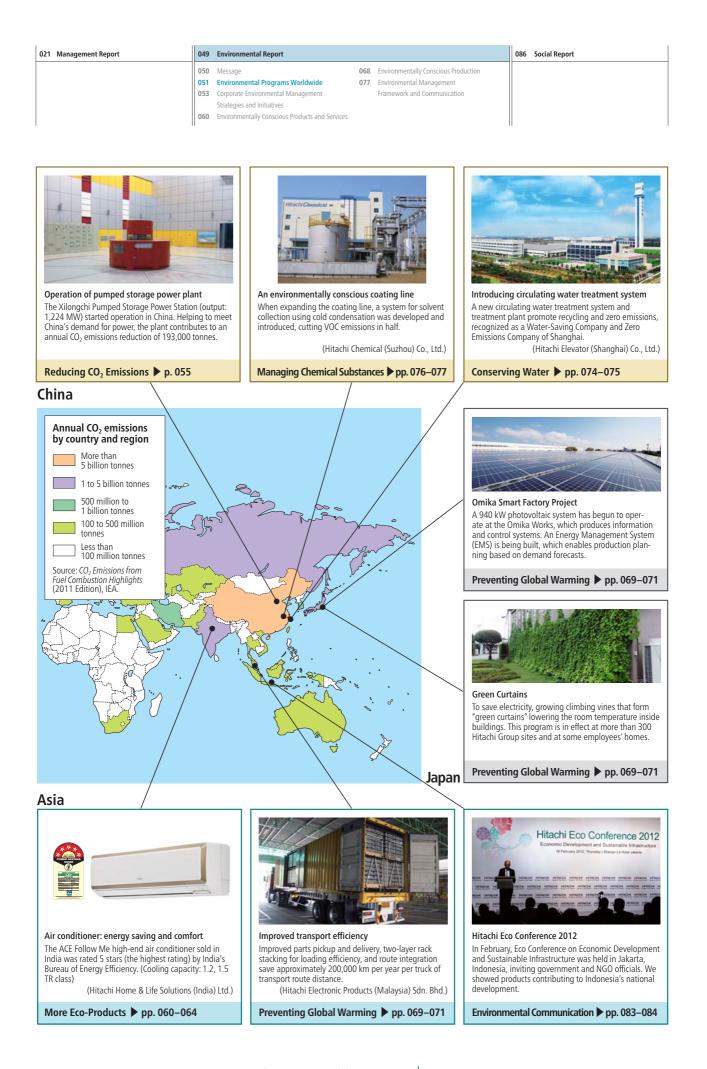
Environmental Communication ▶ pp. 083–084



# Eco-Engineering Forum

The third Eco-Engineering Forum: Building Sustainable Cities was held in Washington, D.C. Presentations and discussions featured stakeholders from corporations as well as federal and local governments.

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**Hitachi's Environmental Vision** 

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# **Corporate Environmental Management Strategies and Initiatives**

Guided by the Environmental Vision, aimed at achieving a sustainable society, our corporate environmental management is being carried out to meet the goals set by the longterm Environmental Vision 2025 and our **Environmental Action Plan. In addition, corpo**rate environmental management is a focus of the Hitachi Group 2012 Mid-Term Management Plan looking ahead to fiscal 2012.

We are helping to reduce environment burden by providing our products and services and through our business operations.

# The Hitachi Environmental Vision

Hitachi has drawn up the Environmental Vision which describes the aim of our corporate environmental management: "to achieve a sustainable society." The world's population is expected to reach 9 billion by 2050.<sup>11</sup> At the same time, worldwide GDP continues to grow. The increase in economic and social activities increases demand for energy, water, minerals, and other resources. This has made environmental problems worse, such as resource depletion and climate change. To solve these problems faced by the entire world, the load on the environment must be reduced to the highest extent possible to achieve a sustainable society.

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. As a milestone on the way to realizing this Environmental Vision, we drew up the long-term plan Environmental Vision 2025 looking ahead to fiscal 2025.

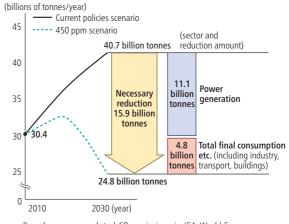
1 According to the United Nations report, World Population Prospects: The 2010 Revision



# Long-Term Plan Environmental Vision 2025

The Intergovernmental Panel on Climate Change (IPCC), a UN panel assessing and advising on the causes and effects of climate change, concluded in its Fourth Assessment Report that CO<sub>2</sub> emissions must peak by 2015 and be reduced by 50 to 85 percent of their 2000 levels by the year 2050 in order to meet the minimum stabilized density scenario for

#### World Outlook for Energy-Related CO<sub>2</sub> Emissions and **Reduction Scenarios**



Based on energy-related CO<sub>2</sub> emissions in IEA World Energy Outlook 2011

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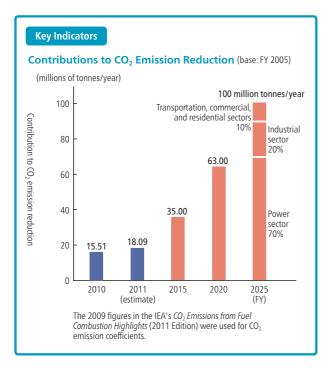
greenhouse gases (450 ppm stabilization scenario).

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The International Energy Agency (IEA) has drawn up a CO<sub>2</sub> emission reduction scenario allocating the amount of reductions for power supply and demand. Hitachi is widely conducting business in both of these sectors. For this reason, the long-term Hitachi Group Environmental Vision 2025 targets the prevention of global warming, one of the issues that the world is facing today, and states our goal of helping reduce annual CO<sub>2</sub> emissions by 100 million tonnes by 2025 through Hitachi products and services.

This means that as we reduce  $CO_2$  emissions–by improving the environmental efficiency of Hitachi Group products and by other means–our contribution to curbing  $CO_2$  emissions through the use of our products and services will be 100 million tonnes per year by 2025 compared with the products of the base year, fiscal 2005. The target of 100 million tonnes was calculated based on growth strategies in each business sector. Some 70 percent of the reductions are being targeted in the power sector, 20 percent in the industrial sector, and 10 percent in the transportation, commercial, and residential sectors. To reach these goals, we are working to increase the ratio of our products that are Hitachi Eco-Products (see page 060), with a reduced burden on the environment. We are expanding business opportunities further by working with partners in global markets.

Our contribution to  $CO_2$  reduction in fiscal 2011 is estimated to be 18.09 million tonnes. This is less than our target of 20 million tonnes. A wide range of products and services contributed to the reduction in emissions, including high-efficiency thermal and hydro power plants, energy-saving information systems, consumer electronics products, and industrial equipment, as well as parts and materials used in energy-saving products. Due to the effects of the disaster caused by the Great East Japan Earthquake, however, plans for introducing electric power plants were drastically altered, preventing us from achieving the original targets. We will continue working to develop and popularize products that contribute to  $CO_2$  emission reductions.



WEB Details of methods for calculating the contribution of Hitachi products and services to the reduction in CO<sub>2</sub> emissions http://www.hitachi.com/environment/activities/third/method.html

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Main Products Contributing to CO<sub>2</sub> Emission Reductions in Fiscal 2011



#### Keephills 3 power plant (Canada)

The Keephills 3 power plant (output: 495 MW), owned by a joint venture founded by Canada's Capital Power Corporation and TransAlta Corporation, began commercial operation. Similar to Canada's first supercritical coal-fired power plant, Capital Power's Genesee 3 plant, Hitachi supplied the entire plant including the boiler, turbine, environmental control systems and related facilities. For coal-fired power generation, essential for meeting worldwide power demand, supercritical pressure boiler technology is seen as promising because of its high energy efficiency. The new plant, Keephills 3, will contribute to an annual reduction in CO<sub>2</sub> emissions of 190,000 tonnes.\*

\* Compared with the average CO<sub>2</sub> emission coefficients of coal-fired power plants around the world in 2005





Xilongchi pumped storage power station (China)

The Xilongchi pumped storage power plant (output: 1,224 MW) in China started commercial operation. This plant, which takes advantage of a large difference in elevation of around 700 meters, was delivered as the first pumped storage power plant in China by a consortium of Japanese companies. Its main feature is that although it uses a high elevation drop and is designed for high output, it generates very little noise or vibration. Pumped storage power generation works by pumping water to a higher elevation during slack periods and using the stored water to generate electricity during high-demand periods. In this way it is able to match supply to demand, and this station is contributing to the stable supply of electricity to the Huabei region, including Beijing. The new plant will contribute to an annual reduction in  $CO_2$  emissions of 193,000 tonnes.\*

\* Compared with average  $CO_2$  emission coefficients of all power sources around the world in 2005. Calculated by Hitachi, Ltd. on the assumption of certain operating conditions.

#### Disk Array System

Information & Telecommunication Systems Company, Hitachi, Ltd.



Hitachi Virtual Storage Platform

The Hitachi Virtual Storage Platform is an enterprise disk array optimized for a cloud environment, taking advantage of innovation in virtualization and automation. Along with high performance, it uses a modular architecture for flexible scaling in the cloud. Non-stop operation is made possible by the redundancy of the main system components. Energy efficiency is improved by using large-capacity 3.5-inch HDDs (hard disk drives) and 2.5-inch SSDs (solid state drives) as well as low power consumption HDDs. The contribution to the annual reduction in CO<sub>2</sub> emissions per system<sup>\*1</sup> is 23.4 tonnes.<sup>\*2</sup>

\*1 2,521 TB model using 1,280 3.5-inch HDDs.
 \*2 Compared with Hitachi Universal Storage Platform (2005 model using 1,152 3.5-inch HDDs for a capacity of 332 TB).

Hybrid Hydraulic Excavator

Hitachi Construction Machinery Co., Ltd.



ZH200 hybrid hydraulic excavator

Hitachi Construction Machinery's ZH200 hybrid hydraulic excavator stores the electricity in a capacitor that is generated as the motorized swing arm decelerates, using this electricity to assist the hydraulic motor during acceleration. The hydraulic system uses three pumps and control valves, rather than two as in the standard model (ZX200-3), for more precise output control, reducing hydraulic loss. These systems are designed to optimally supplement each other's operation. Compared with the same work done by a standard model, fuel consumption is reduced by 20 percent. One ZH200 excavator contributes to an annual reduction in  $CO_2$  emissions of 9.7 tonnes.\*

\* Compared with a standard model (ZX200-3), which has been on the market since 2006

WEB Methods for calculating the contribution of Hitachi products and services to the reduction in CO<sub>2</sub> emissions http://www.hitachi.com/environment/activities/third/method.html

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# **Environmental Action Plan**

Hitachi adopts environmental action plans every five years for achieving the Environmental Vision and for promoting the long-term plan Environmental Vision 2025. To this end, we are defining specific action items and targets. One aim is to achieve *emission neutral* by fiscal 2015. We began implementing the Third Environmental Action Plan in fiscal 2011.

#### **Emission Neutral**

As a result of our environmental activities to become emission neutral by fiscal 2015, we were able to achieve this state ahead of schedule (in fiscal 2011). The *emission neutral* concept is geared at minimizing the environmental load throughout the life cycle of products. It is achieved when the direct environmental load becomes equal to the social environmental load reduction. Direct environmental load means the total impact from all manufacturing stages, from raw materials refining and processing to production and transportation. It includes such impacts as greenhouse gas emissions, waste materials chemical emissions, and other environmental loads that can be reduced

#### Hitachi Action Guidelines for Environmental Conservation

#### Purpose

In order to realize an environmentally harmonious and sustainable society through products and services, Hitachi is committed to meeting its social responsibilities by promoting globally-applicable 'MONOZUKURI' (designing, manufacturing or repairing of products), which is aimed at reducing environmental burdens of products throughout their entire life cycles, ensuring global environmental conservation.

#### Action Guidelines

- 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.
- 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 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.
- 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.

by the company. Social environmental load reduction means the amount reduced in greenhouse gas emissions through product energy efficiency and resource conservation during product use and recycling, waste generated, and so on compared with products marketed in fiscal 2005.

To date, besides improving efficiency aimed at reducing the direct environmental load from production, we have been decreasing the social environmental load through the development and sales growth of Hitachi Eco-Products. In fiscal 2011 our direct environmental load was 16.13 million tonnes of CO<sub>2</sub> while the reduced social environmental load was greater than this at 18.06 million tonnes of CO<sub>2</sub>, which means *emission neutral* was achieved before the final year of the plan.

#### The Emission Neutral Concept

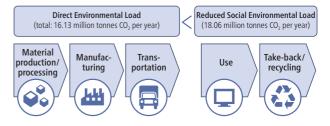
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- 5. Hitachi will investigate and review the environmental impact caused in the course of its 'MONOZUKURI' processes. Hitachi will also introduce excellent technologies and materials useful to safeguard the environment, in other words, to reduce environmental 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.
- 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.
- Hitachi will educate its employees to take action in order to obey environmentrelated laws, raise their global environmental awareness, and encourage their interest in environmental conservation having wide-view about society activities.
- 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.

Adopted March 1993, revised July 2010



# **Overview of Environmental Action Plan**

The Sustainability Compass depicts the four directions of environmental activities to be taken based on the Hitachi Group Environmental Action Plan. All these activities are designed and carried out in accord with the Action Guidelines for Environmental Conservation.

#### **Sustainability Compass**



### Hitachi Group Fiscal 2011 Environmental Action Plan: Targets and Results

Action goals	Indicators		Fiscal 2011 targets	Fiscal 2011 results*1	Achievement level	Final fiscal year (2015) targets	Page(s)
Eco-Mind & Global Env	vironmental Management						
Establish environment	al management systems						
Ecosystem (biodiversity) preservation	Propose strategies for assessing ecosystem preservation		Draw up business assessments on ecosystems preservation	Assessment preparation	<b>* * *</b>	Completion and announcement of business assessment on ecosystem preservation	pp. 058–059
Next-Generation Prod	ucts and Services						
Promote Eco-Products			1				
Expand Hitachi Eco-	Percentage of Hitachi Eco-P	roduct sales	79%	80%	<b>***</b>	88%	pp. 060
Products lineup	Number of models in Eco-Products Select program		20 models	60 models	<b>* * *</b>	100 models	pp. 062–063
Environmentally Conso	cious Factories and Offices						
Build industry's most a	advanced factories and offi	ces					
Promote Eco-Factory & Offices Select certification	Eco-Factories & Offices Select certification		Deployment of new certification criteria	Completed	<b>* * *</b>	Average of one or more certifications per company/group company	pp. 068–69
Prevent global warmir	ıg						
Reduce CO <sub>2</sub> emissions	Rate of reduction in CO <sub>2</sub> emissions (base: FY 1990, Japan)		16%	28%	<b>***</b>	20%	p. 069
Reduce CO <sub>2</sub> emissions per unit production	Rate of reduction in CO <sub>2</sub> emissions per unit production (base: FY 2005)		6%	21%	<b>***</b>	10%	p. 069
Reduce energy used in	transportation						
Reduce energy for shipping per unit production	Rate of reduction in energy for shipping per unit production (base: FY 2006, Japan)		12%	19%	***	15%	p.071
Use resources efficient	ily			•			
Reduce waste	Rate of reduction in	High Functional Materials Group	8%	12%	<b>***</b>	15%	p. 072
generation per unit production	waste generation per unit production (base: FY 2005)	Assembly Industry Group (other than high functional materials)	16%	15%	**	20%	p. 072
Use water effectively	Rate of reduction in water uproduction (base: FY 2005,		16%	42%	<b>***</b>	30%	p. 073
Reduce VOC* <sup>2</sup> atmosp	heric emissions						
Decrease ratio of VOC atmospheric emissions (emissions/used amounts)	Ratio of VOC atmospheric emissions (emissions/ used amounts)		5.8%	6.4%	**	5% or less	p. 075
Worldwide Environme	ntal Partnerships						
Global citizenship prog	gram						
Social contributions through environmental activities	Carry out environmental co the flagship activity of each company		Five-year plan drafting and implementation	Completed	***	One or more flagship activities per company/ Group company	pp. 083–084

\*1 Data of Hitachi Global Storage Technologies, Inc. and Hitachi Displays, Ltd. are excluded \*2 VOC: Volatile Organic Compounds

Achieved Partially achieved

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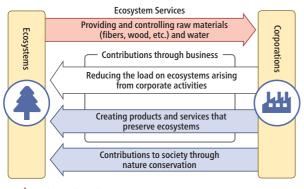
The Third Environmental Action Plan, covering fiscal years 2011 to 2015, seeks to strengthen the initiatives of the second plan, and sets higher targets for environmental load reduction for each of the action items. In fiscal 2011, the first year of the plan, we were able to achieve our targets for ten items but fell short in the remaining two. We are now making every effort to ensure our targets are achieved for all items by the final year of the plan.

# **Preserving Ecosystems**

We have made the preservation of ecosystems a pillar of our environmental vision and incorporated it into our Action Guidelines for Environmental Conservation. Specific initiatives in this area are defined in the Hitachi Group Ecosystems Preservation Guideline and are carried out accordingly.

Corporations depend on benefits from ecosystems, such as the provision of paper and water, and quality and quantity control of air, water and soil. In order to continue receiving these benefits and to restore ecosystems, we believe that we can contribute to ecosystem preservation in both business and social activities. Specifically, for contributions through business, we are promoting designs and production that reduce the impact on ecosystems during the product life cycle (raw material procurement, production, transportation, use, recovery, recycling and appropriate disposal), as well as increasing the products and services for direct preservation of ecosystems through water and air purification.

#### **Corporations and Ecosystems**



Production dependent on ecosystems

Minimizing the negative impact (reducing burden on ecosystem)

Expanding the positive impact (contributing to ecosystem preservation)

Seeing chemical substance management as part of ecosystem preservation, we continue to ensure that it is carried out correctly. For contributions to society, we encourage tree planting and ecological surveys of rare plants and animals by employees in volunteer programs, along with other programs that preserve ecosystems.

# Assessing the Corporate Relationship with Ecosystems

In the *Hitachi Group Guide to Preservation of Ecosystems* issued in March 2011, we presented to all employees our thinking on the relationship between corporate activities and ecosystems, while introducing trends and examples of initiatives being taken around the world. To enhance awareness, in May 2012 we issued *Business Assessment on the Preservation of Ecosystems* and began evaluating actions being taken in overall business activities. We plan to review this assessment program regularly and make ongoing improvements throughout the Group.

In the Council on Competitiveness-Nippon (COCN), a private group bringing together business leaders and experts from all areas to advise on policies for making industries more competitive, Hitachi served as the leader and secretariat of a study team on corporate activities and biodiversity. The study team's final report summarizes trends in and outside Japan and includes a checklist for assessing the impact of corporate activities on biodiversity.

In addition to the above corporate activities as a whole, we assessed the impact of two individual projects on ecosystems during fiscal 2011, using the Corporate Ecosystem Valuation (CEV) methodology developed by the WBCSD (World Business Council for Sustainable Development). CEV is a method for making better business decisions by evaluating both ecosystem degradation and the benefits provided by ecosystems.

One of the projects is the water treatment services provided by Hitachi Plant Technologies, Ltd. in the Maldives. The evaluation looked at the impact on the surrounding ecosystems from the water supply infrastructure and clarified the costs incurred by Maldivian society and the environment. A second

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project is the GeoMation Farm agriculture information management system provided by Hitachi Solutions, Ltd. The study quantified improved efficiency and reduction in environmental burden from the application of information technology (IT) to agriculture. We plan to further evaluate the benefits in additional studies.

WEB Council on Competitiveness-Nippon (COCN) http://www.cocn.jp/en/index.html

# Support for the Development and Spread of Business Ecosystems Training (BET) for Employees

In February 2012, the WBCSD announced Business Ecosystems Training (BET): new course materials for teaching company employees about the relationship between corporate activities and ecosystem preservation. To enable more Japanese companies to make use of BET, Hitachi prepared Japanese versions of the course materials and made them available on the Internet. Along with the use of these materials for internal training within the Hitachi Group, we intend to promote their wider use by publicizing and introducing them in several ways.

### TOPICS

# Ecosystems Preservation at IT Eco Experimental Village

The Information & Telecommunication Systems Company, Hitachi, Ltd. opened an IT eco experimental village in Hadano, Kanagawa Prefecture. The trials and studies being carried out there are aimed at determining the usefulness of IT for ecosystem preservation. The village is also being used for communicating ecosystem preservation and other environmental issues. In fiscal 2011, with the participation of residents in neighboring communities and local government officials as well as children from nearby preschools, in the spring we planted rice in paddies that had been fallow, then harvested it in autumn. In cooperation with Tokai University, we monitored the changes occurring in flora, fauna, and habitats as a result of human



Entrance to IT eco experimental village



Japanese squirrels photographed inside the village

intervention.

In fiscal 2012, we will continue human activities and IT applications. With local residents, we will conduct ecosystem preservation activities and monitoring. Regarding IT, we conducted an experiment to display the village's temperatures and humidity on a website for the visualization of environmental information using sensors and cloud computing.

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# **Environmentally Conscious Products and Services**

We assess the environmental burden of products and services at the design and development phase, and designate those products with a reduced environmental burden as Eco-Products. In fiscal 2011, 80 percent of our sales were for Eco-Products. We are moving ahead with design and development to make all Hitachi products Eco-Products by fiscal 2025.

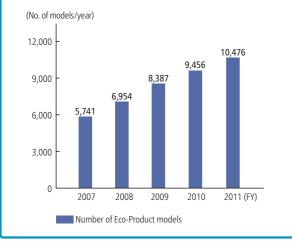
# Increasing the Ratio of Eco-Products

In 1999, we introduced Assessment for DfE (Design for Environment) which sets specific environmentally conscious criteria for designing and developing products and services to minimize their environmental burden. Products that meet DfE standards



that Hitachi cannot control or influence in terms of environmental impacts, such as patent income





are designated as Eco-Products. One of our goals is to increase the Eco-Product sales ratio, or the ratio of Eco-Product sales to total product sales.

In fiscal 2011, to enable implementing the DfE assessment and registering the results directly from product designers outside Japan, we published English and Chinese versions of the guidelines for the assessment and created an English version of the Eco-Product registration (database) system. These initiatives helped increase the number of models designated as Eco-Products to over 10,000 and the Eco-Product sales ratio to 80 percent, topping our goal of 79 percent.

#### **Next Steps**

To achieve our goal of boosting the Eco-Products sales ratio to 88 percent by fiscal 2015, we will work on further globalization, including creating a Chinese version of the Eco-Product registration system.

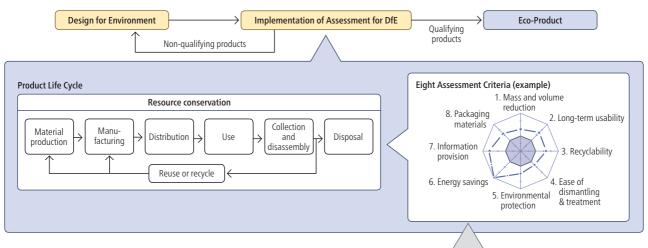
# How Assessment for DfE Is Performed

The environmental load for each product life cycle stage-from material procurement to production, distribution, use, and disposal—is assessed using eight DfE criteria, including environmental protection measures and energy saving. The results are recorded as 1 through 5. If a product scores at least equal to or more than level 2, the reference level before the latest major model change, in all 8 criteria and its average over all the criteria is level 3 or more, it is designated an Eco-Product.

Management of the whole environmentally conscious design and development process is coordinated using the Hitachi Group Ecodesign Management Guidelines. The guidelines-based on the IEC 62430 international standard on generic procedures for environmentally conscious designrequire divisions, such as business planning, design, procurement, manufacturing, and quality control, to be environmentally conscious and keep records on processes and results. This includes the use of DfE assessment and Eco-Product development.



#### How Assessment for DfE Is Performed



DfE assessment criteria (examples)	Life cycle stage (examples)	Focal points of assessment (examples)
1. Mass and volume reduction	Material production, manufacturing	Size and weight reduction, yield of parts and materials, assessment of mass and volume reduction of the 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 & treatment	Manufacturing, 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 production, manufacturing, collection and disassembly, disposal	Environmental protection of parts and units, safety of equipment and materials for maintenance, environmental protection in the manufacturing process, environmental protection for facilities
6. Energy savings	Manufacturing, 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 provision to requesting parties, mechanism for information provision
8. Packaging materials	Distribution	Reduction in mass and volume of packaging materials, recycling of packaging material, ease of collection and transportation of packaging materials, ease of disposal of packaging materials, environmental protection during treatment, and final disposal of packaging materials

#### Fiscal Year 2011 Breakdown of Eco-Products by Sector and Examples

Sector	Information & Telecommunication Systems	Electronic Equipment & Systems, Components & Devices	Power Systems, Social Infrastructure & Industrial Systems, Construction Machinery, Automotive Systems	Digital Media & Consumer Products	High Functional Materials & Components, Other
Breakdown (sales ratio)	20%	8%	39%	9%	24%
Key products	Servers Servers Electronic automatic exchanges (EAXs)	Transmission electron microscopes	Highly efficient gas turbines	Short throw LCD projectors	Eco material cables

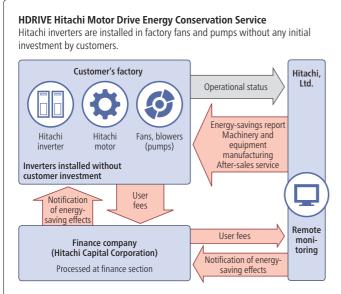
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#### **Development of Eco-Products Select**

Eco-Products that meet even more demanding requirements are designated Eco-Products Select. These must (1) have either a global warming prevention factor or resource factor of 10 or more, or (2) be leaders in their industry for their energy efficiency standard achievement rate<sup>11</sup> or similar factors, or (3) be highly rated outside the company or officially certified, or (4) have a carbon emission reduction at least 50 percent greater than fiscal 2005 products. Factor 10 or more indicates that the product has a global warming prevention efficiency or resource efficiency at least ten times greater than reference products that were sold in fiscal 2005, in principle.

We are committed to expanding the Hitachi

#### **Examples of Eco-Products Select**



#### Super-Amorphous Core Transformer Huge reduction in transformer stand-by power



- **Product: Super Amorphous XSH series** Hitachi Industrial Equipment Systems Co., Ltd.
- Environmentally conscious features and characteristics
   The amorphous alloy with a high magnetic flux density used in the
- iron core boosts performance to more than 150 percent of Top-Runner standards.\*<sup>1</sup>

Eco-Products Select range by increasing the number of Eco-Product Select models. In fiscal year 2011,

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the first year of the new program, 60 models were designated Eco-Products Select, well above the target of 20 models.

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

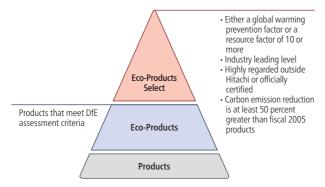
- Product: HDRIVE Hitachi Motor Drive Energy Conservation Service
- Infrastructure Systems Company, Hitachi, Ltd.
- Environmentally conscious features and characteristics
- Hitachi contracts with customers to install, operate, and adjust, as well as maintain large-scale inverters that customers are often reluctant to adopt because of cost and reliability. This comprehensive package, which addresses both "hard" and "soft" elements, allows customers to have energy-saving equipment with no initial investment.
- Introduction of high-voltage motors and large 400 kVA+ inverters at large factories, such as petrochemical plants and cement works.
   Since this service was launched in 2001, 360 GWh of energy has been saved (as of May 2011), equal to about 138,000 fewer tonnes of CO<sub>2</sub>.
   More energy savings are expected as additional factories use this service.
- Third-party evaluations
- METI Minister Award, Business Model Area, Product and Business Model Division, Energy Conservation Grand Awards 2011
- President's Award of the Eco-Products Awards Promotion Committee in the Eco-Services category, First Eco-Products Awards 2004
- Less no-load loss than conventional transformers, \*<sup>2</sup> which use silicon steel plates in their iron cores, so less power (stand-by power) is wasted when equipment is not operating.

#### Third-party evaluations

- Minister Prize of Land, Infrastructure and Transport, Product Contest,
   59th Electrical Construction Equipment and Materials Fair 2011
- Grand Prize for Energy Saving Products in the Eco-Products Category, Eighth Eco-Products Awards 2011
- \*1 Top Runner standards: Reference values set under the Energy Conservation Law (Act on the Rational Use of Energy) for evaluating energy efficiency (total loss).
- \*2 No-load loss: Transformer load loss is divided into load loss, which is caused by the load on the transformer during electricity use, and no-load loss (standby power), which occurs whether or not a load is present. No-load loss occurs primarily in the iron core; load loss in the coil.

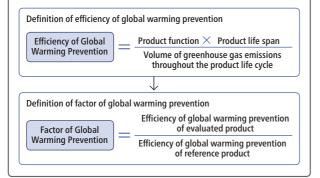


### Hitachi's Framework for Environmentally Conscious Products



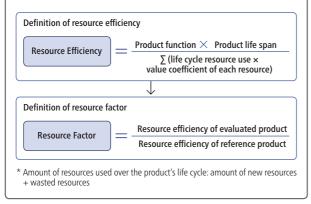
#### **Global Warming Prevention Factor Calculation**

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





The resource factor is the amount of improvement in resource efficiency compared with a reference product. Drawing on the same concept as global warming prevention efficiency, we gauge the improvement in product value by function and life span, using the amount of resources used over the product life cycle\* to calculate the reduced environmental load.



# **Next Steps**

Toward our goal of increasing the number of Eco-Products Select by 100 models by fiscal 2015, we will reduce greenhouse gas emissions, among others, across the life cycle of the products.

# 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 raw materials through to disposal and recycling. Making the GHG emission amount visible in this way boosts people's 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 participated in the CFP Pilot Project run by the Japanese Ministry of Economy, Trade and Industry (METI) and other ministries. In December 2011, we became the first company in Japan authorized to use the CFP label on IT equipment (servers, storages, and network devices). For our storage products, CO<sub>2</sub> emitted over the entire life cycle per storage capacty (per function) is compared with conventional storage, and the CO<sub>2</sub> reduction rate is shown on the CFP label. "Hitachi Group's CFP initiatives and use of CFP in





Compared to conventional model (1TB SATA HDD Support, June 2008) —Reduction of CO<sub>2</sub> emissions— Carbon Footprint of Products http://www.cfp-japan.jp Verification ID: CV-CI01-006

Hitachi Compute Rack



Hitachi Adaptable Modular Storage 2500

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business" were both recognized by the Eighth Life Cycle Assessment Society of Japan (JLCA) Awards (Chairman's Award in the LCA category), which was presented to companies demonstrating dedication to reducing the environmental impact of products across the product life cycle.

#### **Disclosure of Environmental Information**

In 1999, Hitachi introduced an environmental information labeling system that uses symbols and data sheets to provide environmental information on environmentally conscious products.

Hitachi's environmental mark indicates that Assessment for DfE has shown the product to be an Eco-Product, informing stakeholders that the product's environmental burden has been highly improved. Also, our website discloses environmental information, such as data sheets that include power consumption for each environmentally conscious product and case studies of products that helped to improve environmental efficiency.

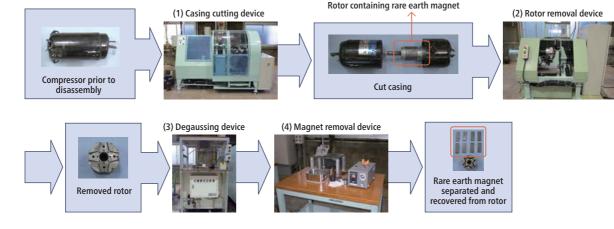


Hitachi's environmental mark

WEB Lists and datasheets of Eco-Products http://www.hitachi.com/environment/ecoproducts/

WEB Environmental Efficiency of Hitachi Products Based on Factor X http://www.hitachi.com/environment/library/pdf/factorx\_en.pdf

### Recovery from Compressors



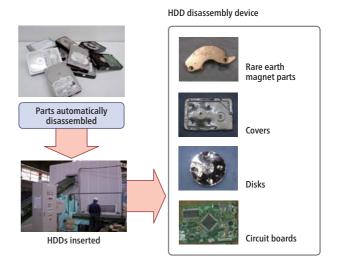
# **Recycling Product Resources**

To promote resource recycling, the Hitachi Group is developing recycling technologies and promoting the reuse and recycling of end-of-life products.

### **Developing Rare Earth Recycling Technologies**

When electronic equipment and components are recycled, iron, copper, aluminum and other resources are usually separated and recovered after shredding. However, the impact of shredding pulverizes rare earth magnets and makes it difficult to recover the rare earths. Removal by hand is inefficient and uneconomic. We developed a dedicated device that uses impact and vibration to loosen the screws that hold product components together so that the product will simply break up into its constituent parts. This device enables a disassembly rate

#### **HDD Automatic Disassembly Device**



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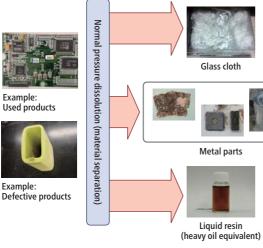
of around 100 hard disk drives (HDDs) per hour, achieving around 10 times greater work efficiency than manual treatment.

Rare earth magnets are also used in compressors in air conditioners and other consumer appliances, but because they are housed in steel casings and because the cutting position differs according to the year and the model, a device was needed to cut them open safely and efficiently. Degaussing (demagnetizing) the extracted magnets is also important. Streamlining these processes within a single system has boosted the safety and efficiency of rare earth magnet recovery.

# **Material Separation Technology Using a Normal Pressure Dissolution Method**

Hitachi Chemical Co., Ltd. has developed a recycling technology that dissolves the resin in glass fiber reinforced plastics and carbon fiber reinforced plastics under normal pressure at around 200°C so that the liquid resin, metal components, and glass cloth can be separated and recovered. This method is highly economic in that it does not require pulverization or other pre-processing and dissolution occurs at normal pressure. Because the process creates no dust, there is no risk of pneumoconiosis or of a dust explosion. For example, using this dissolution method, printed circuit board separation and recovery can be completed in four hours at 150°C, with the metal parts recycled into materials, while

### **Products Recovered Using the Normal Pressure Dissolution** Method



the liquid resin can be reused as fuel equivalent to heavy oil and the glass cloth as insulation material. This technology enables defective units from the production process to be recycled.

# Product Recycling in the Information/ **Telecommunications Field**

Through the sales and other divisions, we propose plans for taking back end-of-life IT products from corporations. This includes recycling or purchasing them for reuse. In fiscal 2011, we took back around 5,800 tonnes of IT products no longer needed by customers for reuse and recycling through the Hitachi Recycle Hotline (set up in 2002) and the Product Recycling Service Center (set up in 2010).



Shipping end-of-life IT products for reuse WEB Status of product packaging recycling http://www.hitachi.com/environment/activities/data/wrapping.html

# **Managing Chemical Substances Contained in Products**

To manage the chemical substances contained in products, we created Regulations for Environmental CSR-Compliant Monozukuri in 2005. This helps us to manage chemical substances from product development and design to procurement, production, quality control, and sales. To voluntarily control chemical substances, we have defined 13 prohibited substances (Level 1) and 13 controlled substances (Level 2), including potential REACH<sup>11</sup> substances, added in 2009.

We have also been using our Integrated Management System for Chemical Substances Contained in Products, created in 2005, as a way to gather and send out information about chemical

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- substances contained in products. We will continue to revise and improve our regulations and product information gathering procedures to ensure compliance with REACH and other regulations. Briefings are held in Japan and other countries to ensure that regulations are understood and actions are taken throughout the Hitachi Group and to educate the employees who are responsible.

REACH notifications on particular substances in articles were completed by the June and December 2011 deadlines. Investigations and preparations are also continuing in the lead-up to the next round of notifications

1 REACH regulation: The European Union's regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals (EU)

# Working with the Supply Chain

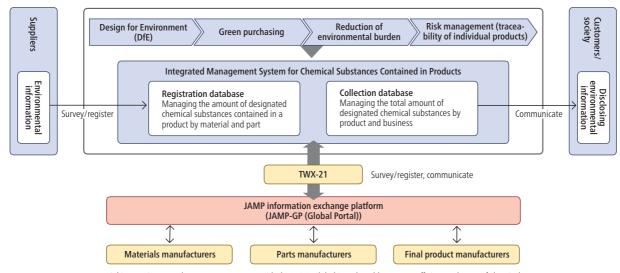
Working closely with suppliers and customers, we have been gathering and sending out information about chemical substances across the supply chain via the Integrated Management System for Chemical Substances Contained in Products. In July 2009, we linked this management system to the cross-industry JAMP<sup>+1</sup> information exchange platform via Hitachi's enterprise cloud service TWX-21.<sup>+2</sup> The direct connection between customer and supplier databases has opened the way for fast, efficient information collection and transfer across the entire supply chain. At the end of March 2012, chemical substance information for 1,000,000 parts and products was registered in our integrated management system.

**1 JAMP**: Joint Article Management Promotion-consortium
 **12 TWX-21**: Cloud-based business service providing an intercompany e-marketplace

#### Hitachi Group's Voluntarily Controlled Chemical (VCC) Substances

Classification	Application	Substance (Group) Names
Level 1 Prohibited substances	Chemical substances that the Hitachi Group prohibits from being included in procured products (chemical substances banned or restricted for use in products, including packing materials, by domestic or foreign regulations and potentially used for procured products for the Hitachi Group)	Cadmium and its compounds, hexavalent chromium compounds, lead and its compounds, mercury and its compounds, bis (tributyltin) oxide (TBTO), polybrominated biphenyls (PBB), polybrominated diphenyl ethers (PBDE), polychlorinated biphenyls (PCB), polychlorinated naphthalene (with 3 or more chlorines), short-chain chlorinated paraffin, asbestos, azo dyes and pigments, and ozone layer depleting substances
Level 2 Controlled substances	Substances that are not restricted for inclusion in procured products but for which monitoring and control are required by domestic or foreign regulations, or for which special con- sideration for recycling or appropriate disposal is required	Antimony and its compounds, arsenic and its compounds, beryllium and its compounds, bismuth and its compounds, nickel and its compounds (excl. alloys), selenium and its compounds, brominated flame retardants, polyvinyl chloride (PVC), phthalate esters, tributyltins (TBT) and triphenyltins (TPT), ozone layer depleting substances (HCFC), radioactive materials, and potential REACH SVHC





Linking our integrated management system with the JAMP Global Portal enables a more efficient exchange of chemical substance information over the supply chain

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Participating in the Development of International Standards

We work with the following international standards organizations for environmental issues and environmentally conscious product technology: the International Organization for Standardization (ISO), the International Electrochemical Commission (IEC), Ecma International, the Standardization Sector of International Telecommunications Union (ITU-T), and the World Business Council for Sustainable Development (WBCSD). This helps us to discover global business opportunities and ensure our products' competitiveness.

In fiscal 2011, Hitachi, Ltd., served as the Chairman of the March plenary meeting of the IEC Technical Committee for Environmental Standardization for Electrical and Electronic Products and Systems (TC111) in Melbourne, Australia. Ecma International officially released the smart data center standards proposed by Hitachi. We also used the Japan Smart Community Alliance (JSCA) and the International Standard Innovation Technology Research Association to work with other domestic companies toward the development of international standards on methods for assessing infrastructures for smart cities. As a result, the Japanese Industrial Standards Committee (JISC) made an international proposal to the ISO, and the TC268/SC1 (smart urban infrastructure) subcommittee was established in February 2012.

# TOPICS

# Lecture by WBCSD President

In March 2012, the new WBCSD president, Peter Bakker, came to Japan and gave a lecture to Hitachi Group employees on environmental protection and social sustainability. Drawing on his own experience, world trends, and initiatives by front-running companies, he argued simply and passionately that economic growth and sustainability were in the process of merging. As a WBCSD member company, Hitachi will continue to work toward the realization of a sustainable society.



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# **Environmentally Conscious Production**

We have set targets for reducing greenhouse gas emissions, waste, chemical substance emissions, and water use in order to reduce the environmental burden of business activities. Plants and offices that show a high level of environmental consciousness as well as outstanding results in these areas receive Eco-Factory & Office Select certification as a way of promoting environmentally conscious production and encouraging environmental action.

# **Creating Eco-Factories & Offices Select**

The Super Eco-Factory & Office certification criteria and mechanisms being used until fiscal 2010 were reviewed in fiscal 2011, launching a new designation: Eco-Factory & Office Select. Certification criteria were developed matching the characteristics of our manufacturing (factory) and non-manufacturing (office) divisions. For factories, standards were raised for energy efficiency, renewable energy use, water recycling and other Super Eco-Factory

#### Examples of Eco-Factories & Offices Select

#### Information & Telecommunication Systems, Hitachi, Ltd.



Software development for the Hitachi Group is undertaken by the Yokohama Office in Yokohama, Kanagawa Prefecture. Construction of a new building designed according to Eco-Office Select criteria was completed in June 2012, featuring a 500 kW photovoltaic system on the roof, energy-saving skylights, and atriums that allow sunlight into all five floors, as well as LED lighting. Double glazing and a double outer layer insulate the building for effective air conditioning. Using the stable temperature in the base isolation pit below the building (created by cool underground air), outside air is brought in from there for server air conditioners.

As a result of these improvements, we have achieved energy savings of almost 20 percent compared with the old building.

#### Kameari Center, Hitachi Building Systems Co., Ltd.

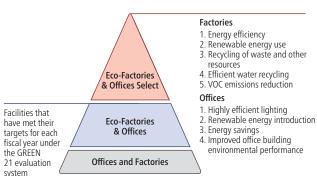


Hitachi Building Systems' Kameari Center has training rooms, a showroom, a customer center, and an R&D division. By reviewing waste disposal routes, Kameari Center reduced its final waste disposal ratio from 5 percent marked in fiscal 2009 down to 0.02 percent. The environmentally conscious and energy-saving programs and techniques that the center has developed include generating power by solar energy, attaching insulating film to windows, and partial greening of the rooftops. A paper recycling room has also been set up to collect and recycle paper generated by the Hitachi Building Systems Group. The paper is first soaked in water and pulped through a wet shredder to produce around 100 tonnes of Hitachi recycled paper every year.

**Eco-Factory & Office Select Certification Criteria** 

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& Office certification criteria. For offices, evaluation criteria have been established in areas such as energy saving for lighting, renewable energy use, and a building's overall environmental protection.

To maintain and raise the level of environmental awareness in Eco-Factories & Offices Select, certified plants and offices will be re-evaluated every year to check that their performance still meets the certification criteria. Our goal is for every in-house and

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Group company to have at least one plant or office certified by fiscal 2015. Those certified as Super Eco-Factories & Offices up to fiscal 2010 will be reevaluated based on the new criteria.

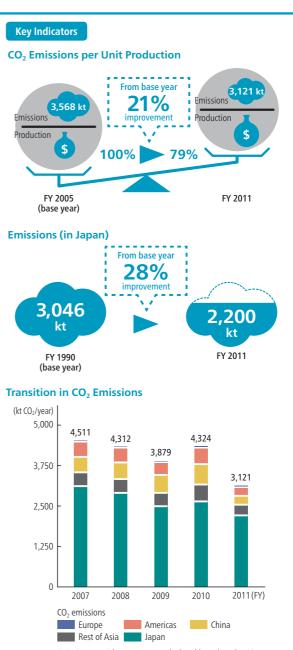
# **Promoting Global Warming Countermeasures**

We are promoting the reduction of energy-related CO<sub>2</sub> emissions from production as well as CO<sub>2</sub> emissions from transportation to prevent global warming.

As of fiscal 2011, we have set two targets for CO<sub>2</sub> emissions and for CO<sub>2</sub> emissions per unit production. Because some operations are still growing, emission volumes have been set for each target Group company toward achieving a 20 percent reduction across the whole Group by fiscal 2015. For the target per unit production, we have set a flat 10 percent reduction from fiscal 2005 to promote sustainable energy-saving investment. Because this target includes improved energy use efficiency (as part of cutting CO<sub>2</sub> emissions), it is useful for setting appropriate goals.

In Japan, our sustainable investment programs for saving energy include the introduction of energyefficient machinery and a switch to alternate fuels. Outside Japan, we have taken a steady approach including higher efficiency in production processes. In fiscal 2011, CO<sub>2</sub> emissions decreased, since Hitachi Global Technologies, Inc. and Hitachi Displays Ltd. were removed from the total calculation.

We are also sharing energy-saving knowhow across the Hitachi Group and supporting the development of energy conservation personnel through interaction with energy conservation workers from factories outside Japan. Reflecting a high rise in CO<sub>2</sub> emissions in China, we have been holding information exchange meetings there for workers in charge of the environment to help identify environmental problems facing production sites and to assess energy efficiency.



Emissions outside Japan were calculated based on the CO<sub>2</sub> emission coefficient for electric power by country published by the International Energy Agency, using 2005 figures for FY 2005—07 and 2008 figures for FY 2008 onward. For Japan, we used 0.423 kg of CO<sub>2</sub> for FY 2005 and 0.36 kg of CO<sub>2</sub> for FY 2007 onward.

Breakdown by Region (kt CO <sub>2</sub> /year)						
	2007	2008	2009	2010	2011	
Europe	4	4	6	9	7	
Americas	443	416	361	473	281	
China	476	510	554	626	276	
Rest of Asia	484	489	476	586	357	
Japan	3,104	2,893	2,482	2,630	2,200	
Total	4,511	4,312	3,879	4,324	3,121	

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#### **Green Curtain Project**

In summer 2011, to conserve electricity, the Hitachi Group launched the Green Curtain Project, an initiative to reduce building temperatures by cultivating vines along building windows and walls. The project involved more than 300 Hitachi Group facilities, as well as the homes of employees who chose to participate. Green curtains not only save power but they create comfortable working and home environments along with being visually appealing. In December 2011, we held the Hitachi Group Green Curtain Contest for 2011, presenting awards in the group and individual categories.



# Introducing Renewable Energy

In fiscal 2011, power generated from renewable energy sources across the Hitachi Group amounted to 542 MWh from solar power and 98 MWh from wind power. We also bought Green Power Certifications of 1,000 MWh from Japan Natural Energy Company to offset the power use in Hitachi, Ltd. offices, shareholders' meetings, and trade fairs.



Green Power Certification symbol

# TOPICS

#### **Omika Smart Factory Project**

Omika Works, which produces information and control systems in Ibaraki Prefecture, Japan, has installed a 940 kW photovoltaic system that has been operating since May 2012. Around 900 monitoring devices, such as smart meters, make power consumption visible for each building and use. The factory has also introduced an Energy Management System (EMS) so that production timelines can be shifted based on energy supply and demand forecasts.



Photovoltaic system installed at Omika Works

### **Reducing Transportation Energy**

We have been working to improve transportation energy consumption per unit production by one percent per year.

In our Second Environmental Action Plan (up to fiscal 2010), we used, for a denominator, the real production adjusted by the Domestic Corporate Goods Price Index (DCGPI). In our Third Environmental Action Plan, we changed the denominator to unit production, which was not adjusted by the DCGPI, in order to further increase transparency.

The 2007 revisions to the Act on the Rational Use of Energy made it compulsory for consignors to reduce transportation energy. The Hitachi Group had been working toward a 12 percent reduction in fiscal 2011 in transportation energy consumption per unit production from fiscal 2006. The long-term railway and sea port damage from the Great East Japan Earthquake caused truck transportation to

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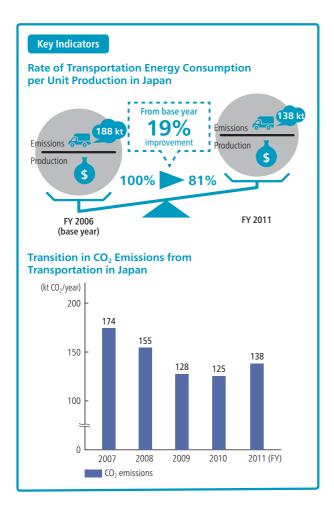
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soar, leading to an increase in  $CO_2$  emissions by 13 kt of  $CO_2$  compared with fiscal 2010. However, we achieved a 19 percent reduction in energy consumption per unit production in fiscal 2011.

### **Next Steps**

To promote energy-related CO<sub>2</sub> emission reduction, we will continue with systematic fuel switching and the use of high-efficiency machinery. We will also elevate environmental awareness by monitoring monthly CO<sub>2</sub> emissions at every in-house and Group company, and work toward the targets shown on our website. The same system will be used to automatically create the regular reports required under the Act on the Rational Use of Energy as well as notifications to administrative agencies.

We are also building a system to assess progress toward fiscal goals, bolstering the PDCA cycle.



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# **Using More Electric Vehicles**

To reduce CO<sub>2</sub> emissions from transportation, Hitachi Capital Auto Lease Corporation, which leases vehicles to the Hitachi Group, bought 50 Nissan Leaf electric vehicles (EVs). Those EVs are used primarily for transporting customers to their facilities. Around half of the cars owned by the Hitachi Group are already low-emission vehicles (LEVs), but we plan to further introduce more new Leaf vehicles to further improve energy efficiency.



Arrival of Leaf EVs

# **Reducing Waste**

We are reducing and recycling waste materials generated during manufacturing, including valuable resources (reusable resources with residual value). In fiscal 2011 too, we continued to improve recycling efficiency by installing foreign matter removal equipment and by introducing returnable transportation packaging materials and pallets.

To cut back on waste, in fiscal 2011 we set up Group-wide goals for waste reduction per unit production. We are now working to cut waste in the High Functional Materials Group<sup>+1</sup> by 15 percent from the base fiscal year of 2005 by fiscal 2015, and in the Assembly Industry Group<sup>+2</sup> by 20 percent. In fiscal 2011, the High Functional Materials Group reduced the amount of waste generated per unit production by 12 percent compared with the base fiscal year, while the Assembly Industry Group achieved a 15 percent reduction.

Under the Zero Emission<sup>13</sup> initiative, which minimizes landfill disposal as close to zero as possible, 160 facilities achieved that goal by fiscal 2011.

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11 High Functional Materials Group: Business group dealing primarily with special metals, electrical wire and cables, wrought copper and copper alloy products, functional materials and synthetic resin processed goods

- 12 Assembly Industry Group: Business group other than the High Functional Materials Group
- **†3** Zero emission: Defined as a final disposal rate (landfill disposal/waste) of less than 0.5 percent in any given year

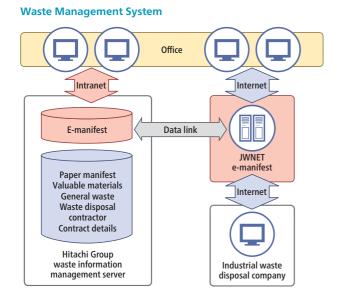
WEB Zero emission sites

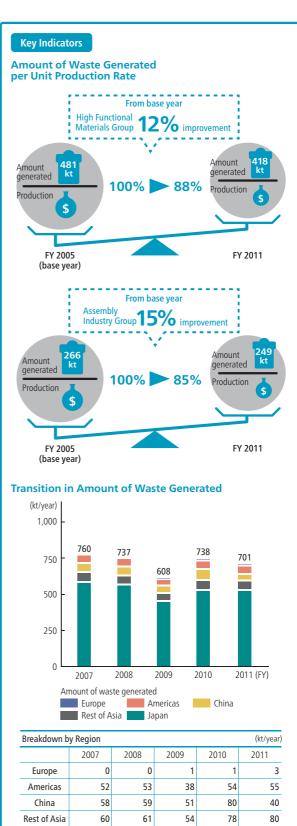
http://www.hitachi.com/environment/activities/data/zeroemission.html

## **Using IT for Managing Waste**

We have developed a waste management system to ensure a high compliance level for appropriate waste disposal and even more efficient waste management. The system brings together information from paper manifests and e-manifests<sup>11</sup> that manage information on waste type, disposal method, and disposal completion, as well as data on general waste, valuable waste, waste disposal contractors, and contract details, enabling unified waste management across the Group. In fiscal 2012, we will improve this system, creating a data link with other e-manifests information directly registered on JWNET<sup>12</sup> for the better use of e-manifest information. We intend to boost the Hitachi Group e-manifest registration ratio to at least 90 percent by fiscal 2015. As of fiscal 2011, 95 operations have introduced e-manifest systems, lifting the registration rate to 32 percent.

- **†1 Manifest:** An evidence document which the waste generator must issue when waste disposal is commissioned to a disposal company
- †2 JWNET (Japan Waste Network): An e-manifest system operated by the Japan Industrial Waste Information Center designated by the Minister of the Environment





Japan

Total

590

760

564

737

464

608

525

738

523

701

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## **Next Steps**

To further reduce waste generation and achieve zero emissions, we will make improvements by using our waste management systems more effectively and by deploying outstanding resource recycling programs Group-wide.

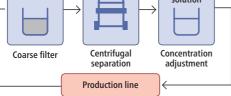
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## **Reducing Water-Soluble Cutting Fluid** Waste

At the Atsugi Works of Hitachi Automotive Systems, Ltd., to reduce the amount of wastewater from soluble cutting fluid, we replaced the way of managing from a fixed period to a fixed quantity (number of parts processed) system. Also, equipment has been introduced for vacuum hydro-extraction and the concentration of fluid waste to reduce the amount of waste generated down to one-tenth. Hitachi Automotive Systems has designed and built a cleaning system for water-soluble cutting oil used on production lines so that instead of all the oil becoming waste, some can be recycled and reused, making major cuts in the amount of fluid waste.

In recognition of these activities, the company received the Chairman's Award in the Fiscal 2011 Awards for Distinguished







Services in Promoting 3R (held by the 3R Promotion Council).

## Water Conservation

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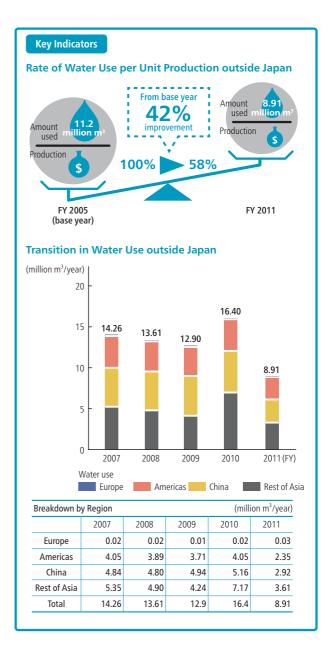
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We are committed to effective water use by reducing the water consumption in our operations. Especially outside Japan where securing water resources is a pressing issue, we have targeted the reduction of water use per unit of production as a Group target, working toward a 30 percent reduction from the base fiscal year of 2005 by fiscal 2015.



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In fiscal 2011, we lowered water use per unit of production outside Japan by 42 percent compared with 2005.

## **Next Steps**

Water is a key resource underpinning people's daily lives. We will strive to optimize water use efficiency as well as steadily reduce our own water consumption by preventing leaks and boosting the rate that we recycle.

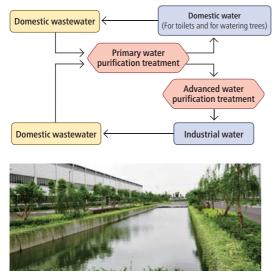
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## **Recycling Water Resources**

Hitachi Elevator (Shanghai) Co., Ltd., which makes elevators, uses water recycling equipment that employs advanced technologies such as chemical treatment, filtration, and reverse osmosis membranes. After the wastewater from production is collected and treated, it is reused for manufacturing as well as for toilets and other domestic water use and for watering trees and plants within the grounds. Through these recycling technologies, the company saves around 80 m<sup>3</sup> of water a day, the same amount of water used by a Shanghai resident in 18 months.

As a result of these activities, the company was recognized as a Fiscal 2010 Shanghai





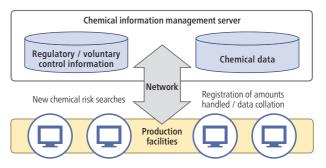
Pond where recycled water is stored after treatment

Water-Saving Company based on screening by the Shanghai Water Authority and the Shanghai Economy and Information Committee.

# **Chemical Substance Management**

To deal with chemical risk and to comply with laws and regulations, we assess chemical substances, managing risk in three ways: prohibition, reduction, and control. Since 1998, we have operated a database for chemical substance management called CEGNET to index the latest laws and regulations and our own voluntary regulations, ensuring the management of newly introduced chemical substances. Chemical substances used in our operations are also registered with CEGNET. Collecting and aggregating data on the amount of chemical substances used, emitted, or transferred helps to reduce our use of chemicals. In addition, we train chemical substance managers and regularly communicate the risks to deepen local residents' understanding of how we manage chemical substance risk.

### **CEGNET Chemical Substance Management System**



## **Reducing Chemical Substances**

To prevent air pollution, we cut emissions of 41 volatile organic compounds (VOCs) based on a program from the Ministry of the Environment in Japan. We reduced VOC atmospheric emissions in Japan by 69 percent from fiscal 2000 by fiscal 2010, and cut VOC atmospheric emissions<sup>†1</sup> outside Japan by 29 percent from fiscal 2005.

Since fiscal 2011, we have been reducing VOC atmospheric emissions to bring them to five percent or less across our global operations by fiscal 2015. For example, Hitachi Chemical (Suzhou) Co., Ltd. has

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Key Indicators **Ratio of VOC Atmospheric Emissions** From FY 2010 0.5% 4,285 t Emissions Emissions 3,653 1 Amount 67,121 t Amount 52,771 handled handled 6.4% 69% FY 2010 FY 2011 **Transition in Reducing VOC Atmospheric Emissions** (t/year) 7.000 6.072 5.250 4,549 4.285 3,737 3,653 3,500 1.750 0 2011 (FY) 2007 2008 2009 2010 VOC atmospheric emissions Europe Americas China Rest of Asia Japan Breakdown by Region (t/year) 2007 2008 2009 2010 2011 8 9 7 9 28 Europe (29) (14) (13) (10) (12) 29 37 29 41 62 Americas (44) (44) (41) (48) (70) 430 288 268 131 427 China (639) (607) (502) (310) (9,522) 273 258 232 307 189 Rest of Asia (496) (356) (452) (539) (8,101) 5 2 9 8 4 0 2 6 3 160 3 2 1 4 3 5 3 6 Japan (94,787) (65,935) (49,399) (48, 444)(51.862) 6,072 4,549 3,737 3,653 4,285 Total (95,980) (66,955) (49,449) (52,771) (67,121)

\* Upper figures show VOC atmospheric emission volumes. Lower figures in parentheses show the volume of VOCs handled. The target scope of the data aggregation outside Japan by 2010 was different.

reduced VOC emissions from a photosensitive film production process by 50 percent by introducing a solvent recovery system into the cold condensation process developed by the company.

However, a Group-wide increase in painting

processes, which have high VOC atmospheric emissions, resulted in 6.4 percent in fiscal 2011 compared with an original target of 5.8 percent. In fiscal 2012, we will introduce alternate materials into the painting process, as well as improve these processes, to reduce emissions.

We comply with Japan's PRTR Law<sup>12</sup> through Group-wide monitoring of chemical substances released into the atmosphere or into public waters, or removed outside our plants as waste, or discharged into sewage systems, reporting this to local Japanese governments. Although some substances are exempt from reporting due to their small quantities, our policy is to keep data on all PRTR substances, provided that the amount is 10 kilograms or more per year, so that we can control these substances as well.

- 1 The rate of reduction of VOC atmospheric emissions: The percent difference between the 2005 emission ratio and the emission ratio in the subject year. The emission ratio is calculated as VOC atmospheric emissions divided by total volume of VOCs handled.
- 12 PRTR Law: Japan's Pollutant Release and Transfer Register Law

## Next Steps

We will continue to improve painting processes, which have high VOC atmospheric emissions.

# **Managing Environmental Risk**

We are setting more stringent voluntary management criteria than regulatory requirements by considering the environmental burden of all our business activities. At every business site, we monitor water quality and noise, for example, and work to minimize environmental risks. We also share information on environmental regulations and violations with each other to prevent recurrences and to further strengthen management.

In fiscal 2011, two incidents violated laws and regulations and there were one administrative guidance and four noise complaints. All were promptly resolved. We will continue to audit and monitor data to prevent recurrences.

### **Violations of Statutory Standards**

	Water quality	Air	Total
Japan	2	0	2
Outside Japan	0	0	0

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### Environmental Load Data Generated through Business Operations (FY 2011)

This chart shows resource inputs and the environmental load for Hitachi Group business activities in fiscal 2011.

#### **Total Input of Resources**

	In Japan	Outside Japan
Surface water	6.03 million m <sup>3</sup>	3.47 million m <sup>3</sup>
Industrial water	22.37 million m <sup>3</sup>	3.82 million m <sup>3</sup>
Groundwater	21.92 million m <sup>3</sup>	1.62 million m <sup>3</sup>

Total Output of Environmental Load

Volume of products shipped: 3,700 kt (in Japan); 501 kt (outside Japan)

ſ									
	Greenhou	ise Gas Er	nis	sions					
				Outside Ja	pan 29% –				
	Greenhouse gases (GHGs)	lı	ı Jap	I					
	3,206 GWP* <sup>2</sup> kt	CO <sub>2</sub> emissions 97%							
			Other 3%						
				In Japan	Outside Japan				
	CO <sub>2</sub> emissions			2,200 kt	921 kt				
	Other GHGs								
	SF <sub>6</sub> (sulfur hexaflu	oride)		50 GWPkt	0				
	PFCs (perfluorocar	bons)		14 GWPkt	0				
	HFCs (hydrofluoro	carbons)		16 GWPk	4 GWPkt				
	Total Volu			Outside Ja	apan 25% –				
	Waste generated 701 kt		in Ja	pan 75%					
	701 KL	Ц	F	Recycling 82%					
		└ Waste re	ducti	on 5% Final	disposal 13% –				
	Waste reduction			In Japan 24 kt	Outside Japan 9 kt				
	Recycling			455 kt					
	Volume reused			70 kt					
/	Volume of materia	l rocyclod		354 kt					
	Volume of therma		 Iod	31 kt					
	Final disposal	i (ileat) ietyc	ieu	45 kt					
	· · ·			45 KG					
	Discharge or trans	Chemical substances   Discharge or transfer volume of chemical substances covered under the PRTR Law 5 kt 5 kt							
	SOx (sulfur oxides	)		52 kNm <sup>3</sup>	16 kNm <sup>3</sup>				
	NOx (nitrogen oxi			511 kNm <sup>3</sup>					
	Volume of dischar								
Volume of		ozone-depleting substances 5 t (0 ODPt* <sup>3</sup> ) 0 t (0 ODP							
water reused In Japan: 45.56 million m		ime of W	aste	ewater Outsid	e Japan 15% –				
Outside Japan: 3.05 million m			In	Japan 85%					
3.03 1111101 111	55.56 million m <sup>3</sup>	Pul	olic v	vater 71%					
		Sewage syster Underground infiltration, e							
				In Japan	Outside Japan				
	Public water		3	6.14 million m <sup>3</sup>	3.44 million m <sup>3</sup>				
	Sewage system		+	8.68 million m <sup>3</sup>	4.63 million m <sup>3</sup>				
	Underground infiltra	tion, etc.	+	2.23 million m <sup>3</sup>	430,000 m <sup>3</sup>				
	Water quality BOD (biological or		+	243 t	647 t				
	COD (chemical ox demand)			177 t	973 t				
	.,								

\*1 The 354 chemical substances covered under Japan's PRTR Law \*2 GWP (Global Warming Potential): Coefficient derived by converting the global warming potential into CO<sub>2</sub> equivalent tonnes \*3 ODP (Ozone Depletion Potential): Coefficient derived by converting the global depletion potential into trichlorofluoromethane (CHC-11) equivalent tonnes

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#### Environmentally Conscious Products and Services

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**Environmental Management Framework and Communication** 

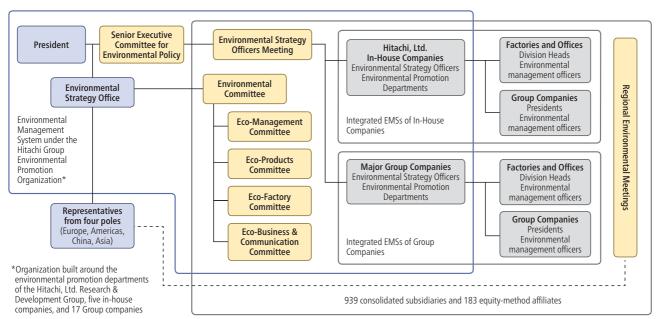
In the Hitachi Group, we have built a global network and are using environmental management systems to foster sound environmental practices and instill "Eco-Mind" in all our employees. We also work to deepen stakeholders' understanding of our environmental activities by disclosing information, and we encourage two-way communication to improve those activities.

# **Environmental Management** Framework

We are building a global environmental management system to support environmental decision making and implementation at Hitachi, Ltd., 939 consolidated subsidiaries, and 183 equity-method affiliates.

The Environmental Strategy Office is responsible for developing Group-wide environmental policies. It drafts basic management policies and action plans that are deliberated on and approved by the Senior Executive Committee for Environmental Policy, chaired by the president. The Environmental Strategy Officers Meeting, made up of representatives from in-house companies and major Group companies, ensures that environmental strategies are implemented throughout the Group. We also have an Environmental Committee and specific committees of working-level experts in each policy area who develop targets and measures for achieving them.

Outside Japan, in fiscal 2011 we deployed environmental specialists in the United States and in Singapore, while strengthening our global management framework in four target regions, including China and Europe. At regional environmental meetings, we reported on progress in implementing the Third Environmental Action Plan that began in fiscal 2011 and shared information on the latest environmental regulations, while exchanging views on local environmental issues in each region. We have been creating environmental information networks in Japan and in each region. These are being used to share trends in environmental regulations and related information. We take advantage of being a multiindustry company by mutually exchanging information with each region, leading to a more global



#### Hitachi's Environmental Management System (EMS)

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approach. We will continue using these worldwide regional networks to improve our global activities, keeping in mind the special character of each region.

# **Building Environmental Management Systems**

To ensure efficient management of each business site's environmental load, we have set the criteria for environmental management. There are approximately 270 business sites that meet these criteria. The R&D Group, five in-house companies, and 17 Group companies, together with the Environmental Strategy Office, have developed and implemented the Hitachi Group Environmental Promotion Organization EMS (environmental management system) to promote the consistent implementation of environmental policies. In fiscal 2011 the Hitachi Group Environmental Promotion Organization EMS underwent its second-year ISO 14001 surveillance audit. No corrective action was required, and certification remains in effect.

At the same time, every business site meeting the criteria for environmental management continues to maintain ISO 14001 certification. Also, business sites that did not meet the internal criteria have also obtained ISO certification, so that 671 Hitachi Group business sites were certified as of April 2012.

# Criteria for Environmental Management Level (major items)

Employees	≥ 500	
Electric power consumption	≥ 6,000 MWh/year	
Waste generated	≥ 500 tonnes/year	
Water used	≥ 600 m³/day	
Paper purchased	≥ 50 tonnes/year	
	,	



53

# WEB List of ISO 14001—certified sites

Rest of Asia

63

http://www.hitachi.com/environment/activities/data/iso14001.html

# Monitoring Environmental Performance Data

For effective environmental management, we collect environmental performance data on business operations using the Environmental Load Evaluation System. This system collects environmental load data from some 270 Hitachi business sites worldwide on such items as energy use, CO<sub>2</sub> emissions, and waste generated, together with information on outside complaints, honors received, and other items. By analyzing this information, we identify environmental management issues, share instructive examples within the Group, and improve environmental practices. We continue to expand this system to keep pace with new laws and policies. For example, we added a function for registration to the electronic manifests promoted by the Japanese government to prevent inappropriate disposal of wastes (see page 072) and upgraded our system to collect and analyze energy-use data from all relevant sites in response to Japan's amended Energy Conservation Law.<sup>11</sup>

Further improvements will allow the system to assess progress toward reduction targets for CO<sub>2</sub> emissions and other environmental load indicators. These measures will heighten awareness of what needs to be done to meet the goals of the Environmental Action Plan.

**†1 Energy Conservation Law**: Act on the Rational Use of Energy

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- Building a System for Visualizing Energy Use

With power companies all over Japan struggling to meet electricity demand, and Tokyo Electric Power Company (TEPCO), among others, announcing major increases in electricity charges, the entire Hitachi Group must exercise efficient control and management of power consumption.

Starting in April 2012, we began tallying the monthly use of energy such as fuel oil, gas, and electricity at 200 large business sites in Japan and started a system to post the results on the Hitachi Group intranet as part of a visualization system.

We further integrated the data from electricity use collection systems at 238 large sites having a contracted capacity of 500 kW or above, and built



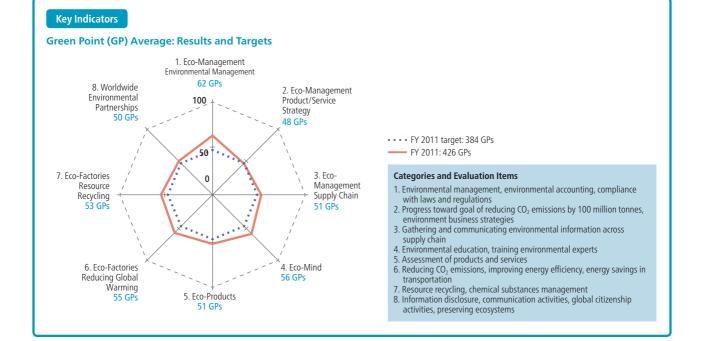
Display Example of Typical Energy Visualization System

the "Hitachi Group Electric Power Data Counting and Monitoring System" that shows hourly statistics on power use, putting the system into operation in July 2012. This system allows us to share information on power use and compare it with previous years. By managing electricity use per unit of production, we are able to become more efficient while employees are more aware of the need to save electricity.

#### **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 53 items on a scale from 1 to 5, showing the results on radar charts. For any category, a perfect score is 100 green points (GPs). The results of GREEN 21 evaluations are incorporated into the business performance evaluations of all Hitachi in-house companies and some Group companies.

In fiscal 2011, we added new items: activities to contribute to the Hitachi Group's business operations through the expansion of environmental business, activities to preserve ecosystems, and activities to gather and communicate environment-related information across the supply chain. The evaluation



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program has been improved after extensive revisions. We surpassed our fiscal 2011 target of 384 GPs with a score of 426 GPs. As we raise the level of environmental activities further, we have set a target of 640 GPs for fiscal 2015.

## Hitachi Group Environmental Award Program

To encourage environmental activities and disseminate best practices throughout the Group, we established the GREEN 21 Award program honoring environmentally conscious products, technologies, and activities. Awards are based on multiple criteria, including the results of GREEN 21 overall environmental evaluations, reduction of environmental load, innovation, and ongoing benefit. In fiscal 2011, 13 activities were selected for awards.

#### Fiscal 2011 GREEN 21 Awards

Category		Recipient (business site/individual)	Achievement	
Environmental Manageme	nt & Communic	ation		
First Prize		Information & Telecommunication Systems Company, Hitachi, Ltd. IT Platform Division Group ALAXALA Networks Corp.	Raising environmental value by promoting initiatives that gain carbon footprint certification	
Excellence Awa	rd	Taiwan Hitachi Co., Ltd.	Cooperating with stakeholders on environmental protection	
Honorable Men	tion	Hitachi, Ltd. Head Office	Encouraging voluntary ecosystem preservation by Hitachi Group employees —Greening of China's Horqin Desert and surveying endangered butterflies—	
		Hitachi Maxell Energy, Ltd., Osaka Works	Forming a special team that doubled the greenery on the company grounds and contributed to the community by cleaning local waterways	
Eco-Business and Eco-Prod	ucts			
Judges Selectio	n Award	Hitachi Industrial Equipment Systems, Co., Ltd., Nakajo Works	Developing and marketing the energy-efficient XSH series of super amorphous core transformers	
		Power Systems Company, Hitachi, Ltd.	Developing and marketing an advanced proton beam therapy system by adopting a new beam scanning approach that reduces the number of parts interfered by the proton beam, and improves the efficiency of the beam, reduces the amount of neutrons generated, and reduces the number of parts needed to be replaced for each patient	
Honorable Men	tion	Hitachi Maxell Energy, Ltd., Head Office, Kyoto Works	Developing and marketing a lithium-ion battery (cylindrical) with reduced use of rare metals	
		Infrastructure Systems Company, Hitachi, Ltd. Information & Control System Division	Providing an SaaS (Software as a Service) environmental information management system that integrates the management of energy data from multiple sites, improves energy conservation awareness through visualization and helps to save energy	
Eco-Factory and Eco-Office		·	·	
First Prize		Hitachi Elevator (Shanghai) Co., Ltd.	Improving energy use efficiency and reducing VOC emissions	
Judges Selectio	n Award	Hitachi Industrial Equipment Systems Co., Ltd., Narashino Division	Helping prevent global warming through improvements in our products and technologies	
Honorable Men	tion	Infrastructure Systems Company, Hitachi, Ltd. Information & Control System Division, Omika Works	Implementing a smart factory project for stronger global warming prevention and resource recycling	
		Hitachi Kokusai Electric Inc., Toyama Works	Reducing the environmental load of factories	

 $^{\star}$  In addition to the above, there was one special prize as well.

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## **Environmental Education**

Hitachi Group training is offered to all Group employees with a view to raising awareness and spreading understanding of environmental issues. Training is divided into general education, covering subjects such as Hitachi's Environmental Vision and environmental strategies, and specialized expert training.

For general education, we offer an e-learning course in three languages: Japanese, English, and Chinese. To date 158,505 employees worldwide (96 percent of the target group) have taken this course.

Specialized training nurtures skilled personnel in such areas as environmentally conscious product design, risk communication regarding chemicals, factories' environmental protection and education to certify the internal environmental auditors who have an important role in establishing and operating the environmental management system. In fiscal 2011, we began a certification training course for auditors responsible for energy saving and waste management.

In fiscal 2011, we began a training course for staff in charge of energy conservation, waste management and other environmental areas and offered explanations on environmental laws and recent amendments as well as procedural handbooks. In addition to Hitachi Group training, individual companies and units provide special courses tailored to their own business area.

From fiscal 2012, we will intensify training to enhance the knowledge and skills of staff in charge of factory management, using case studies to illustrate examples of compliance and noncompliance, and the need for environmental management, while providing opportunities for discussions with outside experts.

Та	rget	Introductory	Beginning	Intermediate	Advanced
General	All	Online e-learning: E (General Topics: Global environmen			
education	employees		Online e-learning: E (Hitachi Group Topics: Environmental p		
		(management of waste, air/wate	course for working-level employees quality, hazardous materials, etc.) f management systems, etc.)		
	Working-level		Education for	Eco-Factories	
Specialized	employees		Eco-Product deve	lopment training	
education			Risk communi	icator training	
				Brush-up training fo	r ISO 14001 auditors
	Internal environmental auditors			ISO 14001 auditor certification training	ISO 14001 senior auditor certification training

#### **Environmental Education and Training System**

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# **Environmental Accounting**

We have adopted, and are making public, environmental accounting that conforms to Japan's Environmental Accounting Guidelines. The results help us to raise the efficiency of environmental investments and activities.

#### **Environmental Protection Costs**

	ltom		Cos	ts (billions of y	en)		Overview
	Item	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Overview
Expenses	Business area	39.72	33.31	28.20	27.98	27.78	Costs of maintaining equipment with low environmental burden, depreciation, etc.
	Upstream/ downstream	2.79	1.97	1.70	1.60	1.43	Green procurement expenses, recovery and recycling of products and packaging, recycling expenses
	Administration	11.30	11.20	8.92	8.61	8.25	Labor costs for environmental management, implementation and maintenance of environmental management system
	Research and development	46.63	50.25	52.81	57.56	79.81	R&D for the reduction of environmental burden caused by products and production processes, product design expenses
	Social activities	0.48	0.35	0.25	0.31	0.45	Planting, beautification, and other environmental improvement expenses
	Environmental remediation	0.80	0.99	0.68	0.37	1.94	Environmental mitigation costs, contributions, and assessment
	Total	101.72	98.06	92.56	96.44	119.66	
Total inves	tment	15.38	10.17	7.95	7.60	9.61	Investment in energy-saving equipment and equipment that directly reduces environmental load

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

#### **Environmental Protection Effects**

#### Economic Effects\*1

ltem		Co	sts (billions of ye	Major FY 2011 Activities		
item	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Major FT 2011 Activities
Net income effects	14.50	10.90	8.30	9.62	13.72	Finding value from waste by sorting and recycling
Reduced expenses effects	22.02	18.24	15.00	18.45	15.27	Reducing resource costs through resource and energy conservation; reducing waste disposal costs through waste reduction
Total	36.52	29.14	23.30	28.07	28.98	

#### Physical Effects

ltem	Amount R	educed (parenthe	eses: equivalent n	umber of househ	olds) * <sup>2</sup> * <sup>3</sup>	Major FY 2011 Activities
nem	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Wajor FT 2011 Activities
Reduction in energy used during production	161 million kWh (34,000)	158 million kWh (33,000)	191 million kWh (40,000)			Switching to LED lighting, tightening the management of air conditioner room temperature settings, optimizing equipment operation rates, controlling and renewing com- pressor operations, improving ventilation systems, etc.
Reduction in amount of waste for final disposal	7,361 tonnes (53,000)	6,752 tonnes (48,000)	5,955 tonnes (43,000)	3,623 tonnes (26,000)		Encouraging recycling, reducing volume or recycling of liquid waste, etc.

Benefits from equipment investment are calculated using the straight-line method over five years, as with costs.

\*1 Economic effects include the following items:
 • Net income effects: benefits for which there is real income, including income from the sale of resalable material and income from environmental technology patents
 • Reduced expenses effects: reduction in electricity and waste treatment expenses arising from environmental load reduction activities

\*2 Calculation for household-number equivalent for energy-use reduction: decrease in energy used during production (or during product use) + total annual power consumption per household.

Source: The Energy Conservation Center, Japan, FY 2008 Survey on Standby Power Consumption (only in Japanese).

\*3 Calculation for household-number equivalent for final-waste disposal reduction: decrease in final waste generated during production ÷ (total annual volume of non-industrial final waste ÷ number of households). Sources: Ministry of the Environment, Annual Report on the Environment in Japan 2009; Statistics Bureau, 2005 Population Census

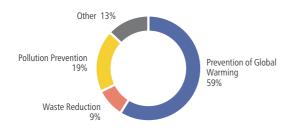
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#### Efficiency of Environmental Load Reduction\*

Item	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Reduction in energy used during production (million kWh/billion yen)	0.28	0.33	0.42	0.32	0.20
Reduction in amount of waste for final disposal (tonnes/billion yen)	20.0	19.4	22.9	14.7	18.3

\*This is an indicator of the efficiency of environmental load reduction, calculated as the amount of environmental load reduction divided by the expenses needed for the reduction.

#### FY 2011 Investment Ratio by Countermeasure



# **Environmental Communication**

## **Communicating Environmental Information**

We publish reports every year on our environmental protection initiatives, their results, and our plans. The *Hitachi Group Environmental Report*, issued each year starting in fiscal 1998. In fiscal 2011, taking into account the global need for a sustainability report, we combined our *Hitachi Group Corporate Social Responsibility Report* and the *Hitachi Group Environmental Sustainability Report* into the *Hitachi Group Sustainability Report*. In addition, the Environmental Activities section on the Hitachi website provides highlights of the environmental considerations taken for Hitachi Group products and services, along with customer case studies.

Also, we cooperate with SRI<sup>11</sup> ratings and other environmental surveys (see pages 113–114).

1 SRI: Socially Responsible Investment. An approach to investing where shares are selected partly on the basis of criteria related to CSR

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

WEB CSR/Environmental reports published by Hitachi Group companies http://www.hitachi.com/environment/activities/data/rpt\_open.html

WEB External environmental awards http://www.hitachi.com/environment/activities/data/commendation.html

#### **Participation at Exhibitions**

We value the opportunity for direct dialogue with stakeholders, so we participate in environmentrelated exhibitions. In Japan, we participated in the Eco-Products Exhibition 2011 in December 2011, as we have every year since the first exhibition. Outside Japan, we took part in the China-Japan Green Expo 2011 in June 2011, and held the Hitachi Eco Conference 2011 in February 2012 in Jakarta, Indonesia, as a private Hitachi Group event.

At exhibitions, we also work to reduce the environmental load of our booths. The Hitachi booth at Eco-Products Exhibition 2011 was built with environmental consciousness in mind, using LED lamps for all lighting and carpet and wall materials that are made from environmentally conscious materials. We are also taking care to offset any unavoidable CO<sub>2</sub> emissions generated from the electricity use at the booth. For these initiatives, the Hitachi booth won the best Eco & Design Booth Prize granted by the event organizer to environmentally conscious exhibition booths. This was our second straight prize winning following last year.



Hitachi booth at Eco-Products Exhibition 2011



Best Eco & Design Booth Prize trophy

WEB List of environmental exhibitions http://www.hitachi.com/environment/ads\_events/event/index.html

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#### **Worldwide Environmental Partnerships**

We promote environmental communication, deepening the exchange on environmental themes with local stakeholders, and we conduct social contribution activities with them.

In fiscal 2011, we carried out environmental education and tree planting as well as cleanup activities in various regions of the world. In education, to help raise the eco-awareness of children who will lead the next generation, we provided learning opportunities through hands-on training and experiments and explanations of Hitachi Group activities.

To conserve the environment as a global citizen, we promote environmental beautification and nature conservation in cooperation with employees, their families, and local residents. Through these activities, we also support environmental protection by holding meetings with local authorities and working with NGOs and NPOs that specialize in local environmental situations and activities (see pages 124–126).



To raise the eco-awareness of children, we conducted Children's Eco-Club activities, giving around 140 elementary school children opportunities to learn about factory waste water treatment and equipment for treating garbage. (Taiwan Hitachi Co., Ltd.)



We are continuing to plant trees on Mount Santa Rita in the Philippines in collaboration with the Ecology Center of the Subic Bay Metropolitan Authority (SBMA), a local administrative agency. (Hitachi Terminals Mechatronics Philippines Corporation)



Mengmo's Eco Classroom for elementary school children in Shanghai featured local employees acting out characters as volunteers, providing students a fun way to learn about the environment. (Hitachi Construction Machinery (Shanghai) Co., Ltd.)



Working with the NPO Green Network (G-Net), 1,000 trees were planted in fiscal 2011 in the Horqin Desert in the Inner Mongolia Autonomous Region of China, part of our annual project for desert greening. (CSR Division, Hitachi, Ltd.)



Periodically we clean along the coastline of Setonaikai near Miyajima, a wonderful place to enjoy Japan's natural beauty (Hitachi Chugoku Solutions, Ltd.)

4th Nature Contact Event: Let's Enjoy Eco Together! (Hitachi Booth, Science Museum)



# Stepping Up Global Procurement and Reinforcing CSR in the Supply Chain

The Hitachi Group is accelerating global procurement to lock in a stable supply of materials and to boost our cost competitiveness for global business expansion. In fiscal 2011, we focused on emerging countries, increasing our number of procurement offices to 25, and we appointed regional chief procurement officers for North America, Europe, China and Asia. We also set up a China and Asia Pacific Procurement Headquarters, reinforcing our partnerships with local suppliers in key regions. We held briefings in China and Eastern Europe to explain our procurement guidelines, while cultivating new suppliers and building partnerships. As part of our training for local staff, we are improving procurement skills training and adding CSR procurement education.

In response to any potential risk, we launched the Hitachi Procurement CSR Committee as a way to share guidelines and programs Group-wide. Through this committee, around 100 suppliers outside Japan were selected for CSR monitoring. In fiscal 2012, we will perform local auditing outside Japan, based on the results of these surveys as part of our drive to reinforce CSR initiatives through supply chain management.



**Shinichiro Omori** Vice President and Executive Officer, General Manager of Corporate Procurement Division, Hitachi, Ltd.



Naoki Mitarai Vice President and Executive Officer, General Manager of Human Capital Group and Corporate Administration Division, Hitachi, Ltd.

# Building Global Human Capital Management to Boost Competitiveness and Create Workplaces Where All Employees Can Work Safely and Happily

While meeting the challenges of global business expansion, we are developing management practices for the entire Hitachi Group so that we can optimize our human capital.

In fiscal 2012, we will build a global human capital database as a step toward creating a global grading system and other common business tools. We will also work to optimize human capital and organizational performance on a business and local basis, moving toward our ultimate goal of providing value that contributes to the competitive advantage of our global management.

With tens of thousands of people outside Japan expected to join our payroll over the next three years, we need to step up locally led business. For this reason, we will train people who share the Hitachi core values to lead our local operations, optimizing human capital management for a particular business and region. We are also promoting work-life balance and diversity management in all regions to ensure that all of our employees can work safely and happily.

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# **Respect for Human Rights**

Cherishing humanity has been fundamental to management at Hitachi since our foundation. When operating globally, we respect human rights based on international codes for all of our stakeholders, appreciating the cultures of every country and region to enhance our understanding of their values.

# **Human Rights Policies**

We established the Hitachi Group Codes of Conduct in 2010. Central to these rules are respect for national and regional laws as well as universal human rights based on international norms. Our codes clearly require: respect for the individuality and personalities of all stakeholders related to our business; the elimination of discrimination in recruitment and employment; and respect for basic human rights in all workplaces. We have translated the codes into 17 languages to improve human rights awareness among all Hitachi Group employees worldwide. We also focus on corporate management that respects human rights, as outlined in ISO 26000, the international standard for social responsibility, published in November 2011.

## **Hitachi Group Codes of Conduct Chapter 4 Respect of Human Rights**

- 4.1 Promoting Respect of Human Rights
  - (1) We will respect international standards of conduct regarding human rights, and strive to ensure that we do not engage in any conduct that obstructs or interferes with human rights.

### 4.2 Eliminating Discrimination

(1) We will respect every person's character and individuality in the recruitment and treatment of employees, the conduct of commercial transactions, and all other company activities, and not engage in any acts that impair individual dignity or discriminate on the basis of sex, age, nationality, race, ethnicity, ideology, belief, religion, social status, family origin, disease, disability, etc.

### 4.3 Respect of Human Rights in Information Management

(1) We will establish information ethics based on consideration of human rights and the maintenance of security in information handling, to prevent in advance the

emergence of problems from personal information leaks, computer viruses, and unauthorized access.

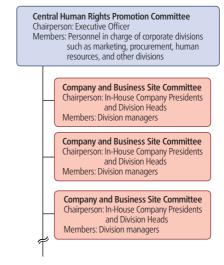
## 4.4 Respect of Basic Rights at Work

- (1) We will advance employment with proper consideration for corporate social responsibility. We will hire employees in accordance with the governing domestic, foreign and local laws in each country and region. We will not use child labor that employs children below the minimum working age or coerced labor that is against the will of the workers.
- (2) We will conduct procurement with proper consideration for corporate social responsibility, and will not procure goods or services from enterprises that utilize child labor or forced labor.
- (3) Considering the laws and regulations and labor practices in each nation and region, and respecting the basic rights of employees presented as the principles of the United Nations Global Compact, we will strive to have employees and managers better understand each other's problems and resolve issues jointly through genuine and constructive dialogue.

# Framework for Promoting Respect for **Human Rights**

Hitachi, Ltd. established the Central Human Rights Promotion Committee to gauge the impact of business activities on stakeholders' human rights and deliberate on mechanisms and policies to prevent human rights violations. A Hitachi, Ltd. executive officer chairs this body, whose members

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



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include representatives from sales, procurement, human resources, and other corporate units. Information from deliberations is shared with all employees through company and business site committees, led by company and division executives.

# **Raising Awareness of Human Rights**

Hitachi improves Group-wide human rights awareness based on guidelines deliberated on and decided by the Central Human Rights Promotion Committee. We develop human rights leaders and provide educational materials and information for the entire Hitachi Group to augment business units' regular group training, seminars, and video education. Hitachi operates a human rights e-learning course that all employees take once every three years to boost human rights awareness across all Group companies in Japan.

We maintain a framework to more swiftly detect and resolve internal and external human rights violations. This framework includes the Compliance Reporting System, a sexual harassment consultation system, and employee awareness surveys. We strive to identify human rights risks globally through regular management and business risk assessments.

# **Applying Human Rights Worldwide**

We encourage human rights awareness as a global enterprise. One example: we work with our CSR team in Europe as, we believe, the most advanced region that is addressing human rights, to develop educational materials and other awareness-raising programs. We intend to apply these programs worldwide.

Our European CSR team collaborated with European Group companies to launch a human rights project. We also promote understanding of the United Nations framework on the issues of business and human rights, "Protect, Respect and Remedy" formulated by Professor John Ruggie, Special Representative of the Secretary-General of the United Nations. Based on that framework, we exchange views with the former members centrally involved in shaping and writing the UN Guiding Principles and provide human rights education to employees. We are also helping our suppliers to



Management workshop in Europe

understand our position on human rights.

Following last year, in fiscal 2011, an e-learning program provided in English, French, German, and Italian was made available for about 10,000 employees at European Hitachi Group companies. We followed up on fiscal 2010 momentum with another workshop on human rights held in conjunction with Global CSR, a group of experts on human rights issues and CSR. More than 80 percent of selected managers participated, deepening their understanding of human rights in the workplace as well as how to incorporate the UN framework into business operations.

# Contributing to International Discussions

As a member of the United Nations Global Compact (UNGC) Human Rights Working Group, we help to promote the UNGC's human rights principles and support their goals of increasing understanding and of implementing the UN framework. The Working Group creates case studies on useful corporate initiatives and we contribute to the working group, which aims to provide guidance on business and human rights and information on management tools.

In Europe, we participate in a working group on supply chains and human rights operated by CSR Europe, a business network promoting European CSR, which is creating guidance to support the implementation of key human rights in business through best practice examples and practical tools.

We will continue our role in international discussions on human rights, deepening our understand-

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ing of global human rights trends and contributing to activities that promote respect for human rights—beyond Hitachi and industry.

## VOICES

#### Leading the Way on Human Rights



Rachel Davis Managing Director, SHIFT Former Legal Advisor to Professor John Ruggie, UN Special Representative on Business and Human Rights

The new UN Guiding Principles on Business and Human Rights provide companies with a blueprint to "know and show" that they are respecting human rights in their own activities and in their business relationships. Hitachi is taking the crucial first steps to implement this blueprint by developing a company-wide human rights policy and building awareness among staff at all levels about what this means for the company.

The next steps for Hitachi will be to develop the human rights due diligence and remediation processes needed to implement the policy. These will be most effective if they build, wherever possible, on existing business practices and systems that are already well-understood and integrated within the company.

Of course, stakeholder expectations will be high. Yet implementation for any company takes time—and for a company of Hitachi's size and diversity, even more so. So it will be important that Hitachi continues to communicate with stakeholders about its plans and progress along the way. Moreover, as both a Japanese-headquartered company and a global company, Hitachi has a leading role to play in sharing the learning from its own efforts with others who are just beginning to address these issues. I look forward to continuing to engage with Hitachi as it works to meet its human rights commitments.

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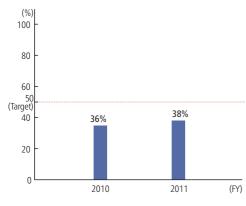
# **Supply Chain Management**

One priority in the 2012 Mid-Term Management Plan is to expand our global procurement ratio, particularly by stepping up purchasing in emerging countries. This will reinforce our competitiveness in global markets, and operational foundation. For global procurement, we respect the human rights and the basic work rights of everyone in the supply chain. We collaborate with suppliers in promoting CSR activities by sharing guidelines and communicating proactively.

# **Promoting Globalization**

Using the 2012 Mid-Term Management Plan, we intended to raise the Hitachi Group's global procurement ratio from 36 percent (fiscal 2010) to 50 percent by fiscal 2012. We therefore formulated the Hitachi Group Mid-Term Procurement Strategic Plan. The key aims are to establish global partnerships to create Group procurement strategies, to stabilize the supply of materials, and to reinforce CSR and sustainability within the supply chain. In fiscal 2011, we appointed procurement officers to oversee local procurement in China, Asia, Europe, and the Americas. These officers are responsible for expanding the pool of suppliers in the emerging nations, as well as for reinforcing our responsiveness to CSR risk, a growing concern as the global supply chain expands.

### **Global Procurement Ratio of the Hitachi Group**



# **Sharing Procurement Policies**

We are pursuing our procurement activities based on the Hitachi Guidelines for Procurement Activities, while sharing global supply chain issues within the Group.

These guidelines were created in line with the United Nations Global Compact,<sup>†1</sup> and include the elimination of discrimination in employment and occupation as well as all forms of child and forced labor.

†1 UN Global Compact: An international accord that Kofi Annan, the former Secretary-General of the United Nations, proposed and which was adopted in 2000. This compact's 10 principles on human rights, labor, the environment, and anti-corruption encourage the building of a sustainable society. The United Nations asks corporations, nongovernment organizations, citizens groups, and other entities to base their actions on these principles.

#### **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.
  - (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.
  - (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, suppliers

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shall be evaluated by product quality, reliability, delivery, price, suppliers' business stability, technical development ability, fair and transparent information release, compliance with societies' rules, regulation 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 role and responsibility for specifications, terms and conditions, product acceptance and inspection belongs to each Requester, Procurement Department and Inspection Department.
- (3) Procurement Departments shall be a representative of HITACHI when contracting with suppliers.
- 5. HITACHI members are prohibited from receiving any personal gifts or offers from suppliers.

Revised in 2009

All companies in the Hitachi Group act in accordance with these guidelines.

# **Building Global Partnerships**

Our basic principles on procurement call for forging partnerships, mutual understanding, and reliable relationships with all suppliers with an eye on the long term. For these reasons, as well as the principle of free competition, we disclose procurement items to all suppliers, inside and outside Japan, to cultivate and expand our pool of suppliers.

For this goal, we held meetings on the Hitachi Guidelines for Procurement Activities with local suppliers in South Korea in July 2011, in Taiwan in



Meeting in Shanghai on procurement guidelines

November, in Shanghai in February 2012, and in Warsaw and Bucharest in March. We will continue to develop relationships with suppliers in new areas in response to globalization, focusing on the emerging nations that we have positioned as major markets.

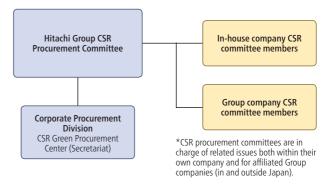
# **Responding to CSR Procurement Risk**

CSR risk is a growing concern as globalization accelerates. Recognizing that supply chain procurement risk could cause management problems, we are reinforcing our risk identification and management to avoid and mitigate risk as much as possible.

#### **CSR Procurement Promotion Framework**

To strengthen our CSR supply chain management, we established a CSR Green Procurement Center within the Corporate Procurement Division. We have also launched the Hitachi Group CSR Procurement Committee, which includes CSR committee members from our in-house companies and Group companies. This completes a framework that will enable our CSR procurement philosophy and initiatives to be shared throughout the Group. The Hitachi Group Procurement CSR Committee selected suppliers from China and elsewhere in Asia as the focus of our fiscal 2011 CSR survey.

#### **CSR Procurement Promotion Framework**



#### Sharing CSR Awareness

We distribute, both throughout the Group and to our suppliers, the *Hitachi Group Supply Chain CSR Deployment Guidebook*, which conforms to the guidelines of the Japan Electronics and Information Technology Industries Association (JEITA).

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WEB Hitachi Group Supply Chain CSR Deployment Guidebook http://www.hitachi.com/procurement/policy/\_\_icsFiles/afieldfile/2010/08/30/ SC\_CSR\_E\_2.pdf

## **Conducting Supplier CSR Surveys**

To address procurement-related risk, in fiscal 2011, we used the *Hitachi Group Supply Chain CSR Deployment Guidebook* as the basis for a supplier CSR evaluation survey conducted in China and elsewhere in Asia.

# Results of CSR Monitoring Survey of 101 Suppliers in China and the Rest of Asia

No.	Country/Region	No. of companies surveyed	Top score	Bottom score	Average
1	China	68	100	54	87
2	South Korea	10	100	59	78
3	Taiwan	6	98	60	84
4	Thailand	6	99	64	82
5	Malaysia	4	90	79	86
6	Indonesia	2	63	61	62
7	Vietnam	2	76	64	70
8	The Philippines	2	96	55	76
9	Singapore	1	80	80	80
Total		101	100	54	84

(Maximum score = 100)

The fiscal 2011 survey covered 101 suppliers. When we collated the results, converting the scores on the JEITA checklist to a maximum of 100 points, four companies (three in China and one in South Korea) achieved the maximum score, while the bottom score of 54 was recorded by one company. The average was 84. These results show how effective CSR initiatives are and how strong CSR awareness is at the companies we surveyed.

The point distribution across the 101 companies is shown below. Seventy-two companies, or around 70 percent, scored 80 or more, while four scored between 50 and 59.



In fiscal 2012, we will use the survey results above to determine which suppliers to audit, using an external organization.

# **Green Procurement**

In keeping with our commitment to environmentally conscious *monozukuri* craftsmanship, we use green procurement<sup>†1</sup> in our supply chain.

**†1** Green procurement: Procuring parts and materials that reduce the environmental burden from suppliers that protect the environment.

### **Green Procurement Guidelines**

In fiscal 1998, Hitachi led the business community in developing Green Procurement Guidelines to define our basic position on procuring parts and products that do not impose a burden 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 burden of products supplied to Hitachi, such as conserving resources and energy, recycling, managing chemical substances, and fully disclosing information.

In fiscal 2011, we added ecosystem conservation to the guidelines as one element of the Hitachi Environmental Vision. These guidelines were also revised to require suppliers to commit to preventing global warming, conserving resources, and preserving ecosystems in their own environmental guidelines.

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WEB Green Procurement Guidelines http://www.hitachi.com/environment/library/pdf/green\_en.pdf

## Helping Build Environment Management Systems

Hitachi calls suppliers who acquire environmental certifications and who develop environmental management systems (EMSs) Green Suppliers. In fiscal 2009, we launched the New MMM Club<sup>†1</sup> with these Green Suppliers, providing them with information on advanced environmental technologies and environmental regulations to support their EMS development.

In fiscal 2011, around 80 suppliers attended a general meeting of the New MMM Club. At the meeting, Hitachi explained trends in global environmental standards, as well as environment-related legal assistance schemes and cases where these have been used. Suppliers gave presentations on their own environmental programs.

†1 The New MMM Club: An organization run primarily by suppliers who have acquired environmental certification through Hitachi's activities to support their own environmental programs. *Mottainai*, which means regrettable waste in Japanese, is now an international environmental term. The three Ms come from the first letter of *mottainai*.



New MMM Club General Meeting

# Dealing with Chemical Substances Contained in Products

There is a global trend for strengthening regulations on chemical substances, such as Europe's REACH regulations. Hitachi has built the A Gree'Net, an Internet-based green procurement system, to collect information on chemical substances contained in products and other environment-related data from suppliers as this becomes available. The goal is to manage chemicals carefully. Under this system, we encourage suppliers to use the MSDS Plus<sup>+1</sup>/AIS<sup>+2</sup> reporting formulas published by JAMP (Joint Article Management Promotion Consortium). We also encourage them to use information transmission systems and to minimize the amount of labor involved. In January 2012, Hitachi announced that it would join with six other downstream firms<sup>+3</sup> in using the JAMP-IT system (a chemical substance management system operated by JAMP). A Gree'Net is linked with JAMP-IT.

- †1 MSDS Plus: 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 mid-stream companies (molded product manufacturers, etc.) for downstream companies (assembly manufacturers, etc.).
- +3 Seven downstream companies: Hitachi, Panasonic, Toshiba, Fujitsu, Mitsubishi Electric, NEC, and Ricoh.

#### **Promoting Green Purchasing**

We are improving our green purchasing rate—the ratio of environmentally conscious products purchased to total office supplies—by using a Groupwide online purchasing system, the e-sourcing Mall. This system has a range of environmentally conscious products, and promotes purchasing by clearly labeling these products.

For fiscal 2011, our green purchasing rate fell slightly from the previous fiscal year's 95 percent due to tighter product supply and demand following the March 2011 disaster, but still reached 90 percent.

### **Response to the Conflict Minerals Issue**

The Dodd-Frank Wall Street Reform and Consumer Protection Act was signed into law in the United States in 2010. Article 1502 of this act obliges companies with securities registered in the US that use any conflict minerals in their products to report this to the US Securities and Exchange Commission (SEC). Conflict minerals include columbite-tantalite, cassiterite, gold, and wolframite, the four minerals determined to be financing conflicts that are produced in the Democratic Republic of Congo (the "DRC") and adjoining countries (together the "DRC countries"). The goal of this law is to cut off revenues from armed groups that use violence and violate human rights in the conflict-ridden DRC countries.

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Hitachi is committed to responsible procurement practices and has no intention, directly or indirectly, of abetting the human rights violations identified in the DRC countries. Accordingly, we are working with Group companies, suppliers, and the industry association JEITA to boost supply chain transparency and to ensure that the minerals we procure do not finance or benefit armed groups committing human rights violations.

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# **Diversity Management**

Our diversity initiatives build a collaborative culture and work environment that motivates a range of people to fulfill their potential, enabling every employee to feel that his or her job is rewarding and worthwhile, and allowing them to work with enthusiasm.

# **Diversity Development Project**

We launched the Diversity and Inclusion Development Project in fiscal 2006 to drive our commitment with a range of programs, including enabling employees to balance work with child care or nursing care and promoting women in the workplace.

#### **Diversity Development Group Council**

We began the Diversity Development Group Council in fiscal 2009 to foster Group-wide diversity (within Hitachi, Ltd. and 25 major Group companies). The Council works to raise the standards of the entire Group by sharing internal and external expertise and through exchanging views.

In December 2011, the council held its eighth meeting under the theme of balancing work and nursing care. In the first session, outside experts gave lectures. In the second session, attendees

#### **Diversity Development Project Structure**



To promote diversity, we hold regular meetings to exchange opinions with labor unions.

formed into six groups to exchange views on setting up new systems and implementing them in each company or worksite, and to discuss common issues. Participating companies and worksites have taken advantage of the information and tools from council meetings to plan and implement their own measures.

## Special Roundtable Talk by Hitachi Group Female Managers

We held a roundtable talk with four female Hitachi Group general managers, led by Yukari Tominaga, an executive officer at Hitachi Solutions, Ltd. The women focused on ways that the Hitachi Group, to compete worldwide, can promote collaboration among employees with varied skills and values. The participants enthusiastically shared their insights on several topics, including helping people to meet the challenges of globalization, developing ideal work styles among diverse co-workers, and motivating people to be successful in the world market. We published some of this discussion on the Group intranet. This event helped us to resolve a perceived lack of role models for female employees by showcasing female executives who have succeeded in a broad range of businesses.



## Women's Summit Tokyo 2011

We cosponsor the Women's Summit Tokyo, a cross-industry networking event that helps to advance women in the workplace. This event brings together people from companies inside and outside Japan to discuss in groups and workshops how to

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support women's goals, diversity management, and globalization. At the fourth event, in November 2011, 190 people from 42 companies took part.

Under the event theme of leadership respecting individual personalities and values, participants exchanged views—against the backdrop of shared awareness of the need to create higher value—by respecting diversity amid growing global competition.



Women's Summit Tokyo 2011

#### Second Work-Life Balance-up! Month

In fiscal 2010, we began holding Work-Life Balanceup! Month (WLB-up! Month) every November to inform employees about our work-life balance programs and to encourage people to use them.

During the November 2011 event, we increased the number of participants to include those in Group companies who will now encourage other employees to review their work-life balance and create a corporate culture where people help one another. In fiscal year 2011, we added a new campaign called My WLB-up! Day to invite employees to take advantage of a program one day during WLB-up! Month, making work-life balance more relevant to them.

#### **Diversity Training for Managers**

It is vital to improve awareness among managers of the need to respect diversity and encourage the participation of all employees. We started diversity training for managers in fiscal 2011. This training features group discussions on specific company or worksite issues and raises awareness of the Hitachi Group's diversity programs. In fiscal 2011, 450 managers participated, making it an excellent opportunity for them to review their management experiences and rethink their approach to maximizing the potential of people and organizations. After completing the training, participants commented that they will take the initiative in driving diversity by adopting new ideas and creating workplaces where people can talk openly.



#### **Diversity Workshops**

We conducted a World Café<sup>+1</sup> workshop to create a better understanding of and to highlight the need for diversity and work-life balance. The workshop provided opportunities for all employees, including senior executives as well as young employees, to speak about diversity and work-life balance in their own workplaces and businesses and to take away ideas from the discussions. We received many positive comments from participants. One person felt satisfied at being able to contribute to diversity initiatives; and another found that the workshop was a good way of sharing issues and opinions. This event also helps foster a corporate culture of mutual respect and assistance. In fiscal 2011, 550 people participated.

**†1 World Café**: Open dialogues among groups of four or five people about specific topics in an informal, café-like atmosphere.



Diversity workshop

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**Main Assessments and Awards** 

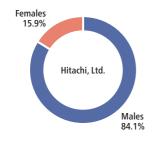
Hitachi, Ltd. has received the following assessments and awards from the media and related organizations to recognize diversity and other initiatives that create more employee-friendly workplaces:

- *Nihon Keizai Shimbun*, 2011 Ranking of Companies with the Best Working Conditions: 2nd place
- Nikkei Business Publications, Inc., 2011 Ranking of the Best 100 Companies that Encourage Working Women: 21st place
- Hitachi, Ltd. Chubu Area Operation: Authorized under the Child Rearing Support Company Certification and Award System sponsored by the City of Nagoya, receiving the jury's special award
- Fortune Magazine of the United States named Hitachi Data Systems Corporation one of the "100 Best Companies to Work For" in 2012.



Child-rearing support company certification and award ceremony

#### Ratio of Male and Female Employees in FY 2011



### VOICES

#### **Exercising Work-Life Balance as a Couple**

Mr. and Ms. Yokoyama joined the company at the same time in 2005. They are enjoying

the shared challenge of raising their two-yearold child.

Tsukasa: "I'm in charge of taking our child to the nursery before work. Ai picks up our child after work, although I'll do that if Ai is busy at work. At home, I always try to help Ai as much as possible. I concentrate really hard at work when deciding to go home early, now that I have less overtime, partly because my boss is very understanding. When we had to work on Saturdays or Sundays because of the effects of the Great East Japan Earthquake, I had to run around to find a nursery that was open on weekends. When I'm by myself on my days off, I learned how laborious it can be to feed, bathe, and otherwise look after children through to bedtime."

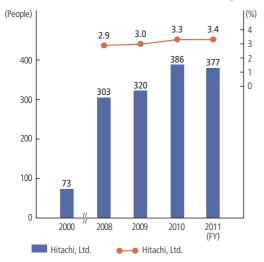
Ai: "I took maternity leave six weeks before our baby was due and returned to work when our child was eleven months old. Tsukasa eased my anxiety about returning to work because he told me how things were going at work, and the company itself made it easier for me to get back into the swing of things. Both our parents live far away, so Tsukasa and I basically share all the childcare and housework. If our child gets a fever or there's some other problem, I try to take advantage of the flextime system. I can afford to take my own time, as Tsukasa willingly looks after our child and shares the housework. He is very helpful, listening whenever I am stressed out or have a problem. I get support from the company in using the programs and from my colleagues and husband."



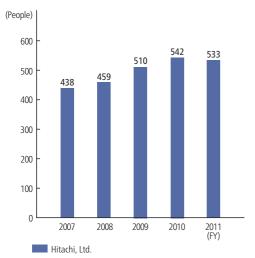
Tsukasa Yokoyama IT Core Development Division, Clarion Co., Ltd. Ai Yokoyama Intellectual Property Division, Clarion Co., Ltd.

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Trend in the Number and Ratio of Female Managers

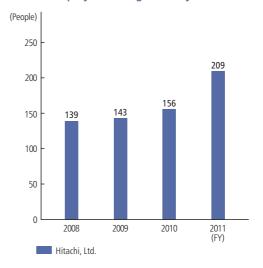


Trend in the Number of Employees Taking Child Care Leave

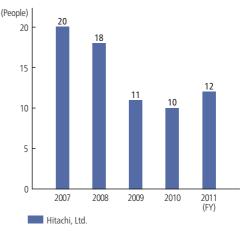


Breakdown of Males and Females						
	2007	2008	2009	2010	2011	
Female	436	451	504	525	518	
Male	2	8	6	17	15	
Total	438	459	510	542	533	

Number of Employees Taking Paternity Leave

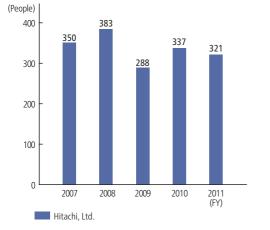


Trend in the Number of Employees Taking Nursing Care Leave



Breakdown of Males and Females (People							
	2007	2008	2009	2010	2011		
Female	10	8	6	7	6		
Male	10	10	5	3	6		
Total	20	18	11	10	12		

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#### Trend in the Number of Employees Working Shorter Hours

Breakdown of Males and Females (							
	2007	2008	2009	2010	2011		
Female	349	381	287	330	313		
Male	1	2	1	7	8		
Total	350	383	288	337	321		

#### **European Diversity Project**

Europe's population is aging at an unprecedented rate. Over the coming decades, companies in Europe will face an intensifying struggle over talent. Businesses will therefore need to more effectively employ women, senior citizens, and young people. We have collaborated with CSR Europe and econsense, and other organizations, as well as with other companies, to address these issues. Also, we produce a publication to assist companies and policymakers to be aware of these types of issues.

The European Diversity Project that we started internally in 2009 continues to address diversity issues across all Hitachi Group companies in Europe. The focus through the end of fiscal 2011 was on gender diversity: encouraging more women to join Hitachi and to promote their career development. An e-learning course is available to all employees, and more than 80 percent of selected managers have taken part in face-to-face workshops.

As a result of these programs, a survey of group companies conducted in fiscal 2011 indicated that the percentage of women in the workforce in general, and in senior management in Europe in particular, increased in fiscal 2010, though slightly. Another encouraging statistic was that the percentage of women among new managers had also risen. In fiscal 2012, this European project will also focus on other dimensions of diversity, such as ethnicity, and on corporate culture change. This will ensure that the cultures of the individual group companies in Europe become more inclusive at all levels. We believe that having a diverse, inclusive corporate culture supports us in becoming a truly global company.

# Holding the Hitachi Global Diversity and Inclusion Summit

The 1st Hitachi Global Diversity Summit and Inclusion was held in San Francisco in October 2011 through cooperation between the personnel and CSR teams in Japan, Europe, and the US. The Human Capital Group and the CSR Division of the head office and the human resources and CSR teams of Hitachi America,Ltd., Hitachi Data Systems, Hitachi Consulting Co.Ltd, and Hitachi Europe Ltd. participated in the summit and discussed diversity and inclusion initiatives already in place and brainstormed about global implementation of these activities. The teams also discussed goals for Hitachi to achieve in the next few years and created recommendations for the Human Capital Group to consider.

Also at the plenary meeting, Global Organization for Leadership Development and Diversity (GOLD), a non-governmental organization which promotes innovative initiatives to provide leadership development training experience that inspires and prepares women to assume leadership roles in a global diversified workforce environment,, made the keynote speech. Benchmarking gender diversity against other global companies was exam-



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ined and various diversity groups were also considered for new initiatives. Then the attendees broke into working groups to examine existing diversity and inclusion policies and to create global Hitachi Diversity and Inclusion Policy drafts that included tactical steps that could be used to achieve the success of the policy and to unite as ONE HITACHI using one global policy.

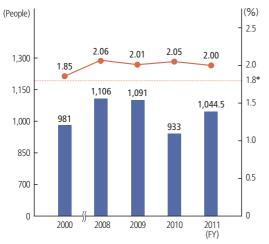
The participants agreed that inclusive diversity is necessary in the increasingly globalized business environment, that cooperation between the personnel departments and the CSR teams is indispensable, that plenary meetings should be held continuously, and that the Diversity and Inclusion Policy drafts should be framed into one policy proposal to be ready for approval by the next summit with a global implementation to follow.

# **Employing People with Disabilities**

We are developing workplaces where anyone can make a full contribution. We continue to employ those with disabilities and promote Group-wide understanding in Japan.

During fiscal 2011, we stepped up hiring people with disabilities. We held the Hitachi Group job fair for disabled jobseekers twice instead of once. We held five study meetings during the year on employing people with disabilities; the goals being to deepen understanding and to share information among companies.

#### **Employment Ratio of People with Disabilities**



Source: Hitachi, Ltd. (collected in June every year) \*Legally mandated employment ratio in Japan

As of June 2012, the employment ratio of people with disabilities was 2.00 percent at Hitachi, Ltd. and 1.86 percent for the entire Group, reaching the legally mandated ratio of 1.8 percent.

#### **Hitachi Group Special Subsidiaries**

Four special subsidiaries within the Hitachi Group are dedicated to creating employment for people with disabilities. In fiscal 2011, 202 physically, intellectually, and mentally challenged people worked for those subsidiaries, up from 180 a year earlier. These people work with employees of the parent company and affiliated companies in the same locations, collecting and distributing mail, cleaning offices, working in cafeterias, and handling clerical work.

One special subsidiary of Hitachi Metals, Ltd. is Hallow, Ltd., based in Kumagaya, Saitama Prefecture. Here, employees with physical, intellectual, and mental disabilities have worked on a range of tasks since the company's founding in 1998, especially manufacturing permanent magnets, finishing aluminum wheels, and cleaning.



Workplace at Hallow, a special subsidiary of Hitachi Metals

## Fostering the Employment and Understanding of **People with Mental Disabilities**

March 2010 saw the completion of a model project of the Ministry of Health, Labour and Welfare called Promoting the Employment of People with Mental Disabilities. Having participated in that project, we are still using the project site and its intranet to continue raising understanding among Group employees of the needs of people with mental disabilities.

The number of "natural supporters," or people those who they provide spontaneous assistance for

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people with mental disabilities, increased to 278 in fiscal 2011, up from 110 a year earlier. Since the model project ended, we have continued our activities, including holding training sessions for supporters. We will build further on our achievement of increasing the number of mentally challenged employees in the Hitachi Group by 33 in fiscal 2011. In addition, we take part in outside lectures and workshops on employing people with disabilities, sharing the expertise learned from the model project with many other companies. We will keep promoting initiatives that help improve employment for mentally challenged people in Japan.



Intranet for the Project to Promote Employment of People with Mental Disabilities

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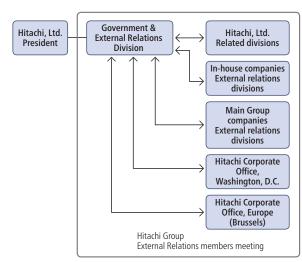
# **Public Policy Initiatives**

Partnerships with governments and policymakers around the world are vital for growing our Social Innovation Business to create a sustainable society. We are enhancing external relations so that we can respond to social expectations as a company supplying social infrastructure and then feeding back social and policy trends to management.

# External Relations Policy and Promotion Structure

Our basic plan is to participate in public policy initiatives not only in Japan but in countries and regions across the world and to help develop a sustainable society. This means building networks with government institutions in countries around the world to monitor policy trends there, offering appropriate recommendations for social innovation solutions, such as energy generation and smart cities.

In fiscal 2009, the Government & External Relations Division (initially the Government & External Relations Office) was established within our headquarters. The division's functions were substantially enhanced in fiscal 2011, adding personnel in charge of external relations at Hitachi's inhouse and Group companies, to enable the division to serve as an organization, directly under our presi-



#### **Hitachi External Relations Promotion Structure**

dent, that can liaise closely with senior management. Regular information exchanges are held with external relations personnel at the Hitachi Group External Relations members meeting.

# **Strengthening External Relations**

Outside Japan, we have offices in Washington, D.C. and Brussels to monitor policy trends and conduct external relations initiatives in the US and Europe. In the US, we have set up an external relations network among the major Group companies to build connections for sharing information on US policy and regulatory trends, as well as various government policy issues. In Asia, we are enhancing external relations in collaboration with local operations.

A more important factor in strengthening external relations in the future will be human resource exchanges among public institutions and private firms. Hitachi currently has many people with valuable expertise on loan to Japanese government and international institutions who contribute to public policymaking. Hitachi also extends invitations to people from government institutions who are operating on the frontlines of public policymaking to help deepen mutual understanding.

# **Contributing to Public Policy on Social Infrastructure**

We are involved in government institution policymaking in many areas of the social infrastructure, including the environment and smart cities as well as railroads, power generation, and water treatment. By participating in government-led study groups and councils, we increase government officials' understanding of Hitachi, and this helps to support policy implementations.

### **The Environment**

One key area in Hitachi's external relations is the environment. Japan's Ministry of Economy, Trade and Industry (METI) and the Ministry of the Environment are currently exploring a new mechanism

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on greenhouse gas emission reductions achieved through the spread of low-carbon technologies and products where Japan leads the world. The goal is to make sure that these reductions are reflected in Japan's overall emissions volume. We are committed to helping resolve environmental problems through our energy-saving products and high-efficiency systems.

In fiscal 2011, two Hitachi projects (currently underway) were selected by the New Energy and Industrial Technology Development Organization (NEDO) following an open call for environmentrelated feasibility studies: a research program on reducing greenhouse gas emissions through a pilot project for energy-efficient distribution transformers in Vietnam, Indonesia, and South Africa; and project and planning studies for gas turbine cogeneration systems for factories in South Africa.

### **Smart Cities**

We also develop partnerships with organizations in the area of smart cities. To resolve global environmental issues, as well as problems at home such as population decline, Hitachi is participating—along with a number of local authorities—in Keidanren's Future City Model Projects. In Hitachi City, for example, the birthplace of Hitachi, Ltd. and home to many Hitachi operations, we have been working with local government bodies, related groups, and local companies to create a better community. We have been looking specifically at energy saving in factories and surrounding areas, as well as technical education, medical care, and residential care.

Outside Japan, we are accelerating our smart city initiatives. Hitachi was selected to conduct NEDO smart grid demonstration projects in Hawaii and Spain, and we are working with government institutions on smart city projects in other regions.

### **External Relations in Europe**

The Hitachi Corporate Office, Europe, located in Brussels, gathers, analyzes and conveys information on policy trends in Europe, makes recommendations on European Union policies, supports business development through contacts within Europe, and serves as a link to European institutions.

Within the Japan Business Council in Europe (JBCE), an association of Japanese companies operating in Europe formed in 1999, Hitachi participates in policy committees on issues such as the environment, CSR, and trade. In particular, as Chair of the JBCE CSR Committee, we are assisting policymakers by offering recommendations to the EU institutions, and enhancing our profile by, for instance, attending European Commission-led meetings as an invited stakeholder. In fiscal 2011, exchanges of views were held with the European Commission and industry associations on the disclosure of nonfinancial information. On the same issue, we also proposed to the European Commission and other key figures a letter of recommendation from the perspective of non-European global companies. Our proactive approach received a positive response.

The information garnered through these external relations activities is shared with not only Hitachi Group companies but also Japanese industry associations. Hitachi will continue to serve as a bridge between Japan and Europe, ensuring that the voices of Japanese companies are reflected in European policymaking.

### **Stakeholder Dialogues**

Since fiscal 2009, Hitachi has been holding stakeholder dialogues around the world with central and local government officials, representatives from research institutes, international institutions, industry associations, and influential NGOs. These groups informally exchange views with senior Hitachi executives and key personnel from headquarters and local operations. Stakeholder dialogues enable us to identify global social issues, understand what is expected of Hitachi, and reflect this in management and strategy. Particularly in the 11 key regions in the Mid-Term Management Plan, many of which are emerging countries, we are discussing medium-to-long-term social and environmental issues faced by local communities and how we could contribute to resolving these issues. Our aim is to build long-term relations with local communities as a good corporate citizen and contribute to sustainable economic, environmental, and social development through our Social

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Stakeholder dialogue in Brazil

Innovation Business.

In Brazil in November 2011, we discussed social and environmental issues from a medium-to-longterm perspective, looking at urban transportation in particular following the Olympics and the World Cup. We received advice from participants on the diversity of cities, how to build relations with local governments, and technologies to improve transportation services. In February 2012, further dialogues were held in Indonesia and Belgium. In Indonesia, discussion focused on environmental issues, with stakeholders suggesting areas other than technology where we might contribute to a sustainable society. Smart cities were discussed in Belgium, and stakeholders put forward a number of suggestions on how local residents' needs and cities' particular characteristics should be reflected in technology and urban development.



Stakeholder dialogue in Indonesia

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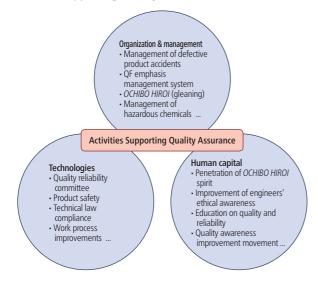
# **Quality Assurance and Customer Satisfaction**

To reinforce our management structure, we improve the quality of products and services globally for diverse customers through our tradition of monozukuri craftsmanship.

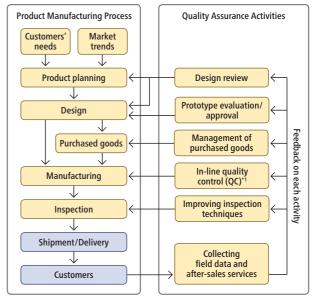
## **Quality Assurance Activities**

To preserve our tradition of monozukuri craftsmanship from the customer's perspective, we are fully committed to Hitachi Group-wide quality assurance-covering everything from product planning and development through to delivery and after-sales service. We support quality assurance in particular by activities that place priority on organizations and management, technology, and human capital. In fiscal 2010, we launched the threeyear Hitachi Group QF (Quality First) Innovation Movement to ensure product safety, compliance with laws and regulations, human resource development, and improved quality. We have also been concentrating on quality improvements outside Japan, especially in China and the rest of Asia, since fiscal 2007.

#### **Activities Supporting Quality Assurance**



# **Quality Assurance Flow Chart**



#### \*1 In-line QC: Review and verification for identifying potential defects at the development and prototype stages of the product lifecycle.

## **Quality and Reliability Education**

We develop training courses for all technical and skill levels at divisions engaged in design and quality assurance. The courses cover reliability (fundamentals and applications) and product safety. In fiscal 2010, we started a new course for section chiefs and above to reaffirm their way of thinking on technology and design. In fiscal 2011, we reinforced our monozukuri capabilities by initiating an e-learning program for the more than 120,000 Hitachi engineers around the world, reaffirming the Hitachi monozukuri spirit from the perspective of Hitachi engineering ethics.

A quality assurance training center at a manufacturing site in Hitachi City, Ibaraki Prefecture, helps to increase production, inspection, and maintenance skills. Other locations and manufacturing sites offer their own specialized technical courses.

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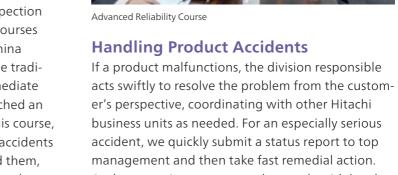
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Strengthening Quality Assurance (QA) Systems in China and throughout Asia

China and other Asian nations account for much of our production outside Japan. We are therefore reinforcing systems and training to improve guality there. For example, we host an annual Conference for QA Managers in China and Thailand to improve quality awareness and to share information.

To develop QA skills in people worldwide by improving their quality awareness and inspection techniques, we provide quality reliability courses in Beijing, Shanghai, and Guangzhou in China and Bangkok in Thailand. In addition to the traditional Basic Reliability Course<sup>+1</sup> and Intermediate Reliability Course,<sup>†2</sup> in fiscal 2011 we launched an Advanced Reliability Course in China. In this course, managers hold group discussions on past accidents to identify the fundamental causes behind them, including process-related, organizational, and psychological factors. The aims are to boost problem identification and problem-solving skills as well as to develop accident prevention measures. The same course will be held in Bangkok in fiscal 2012.

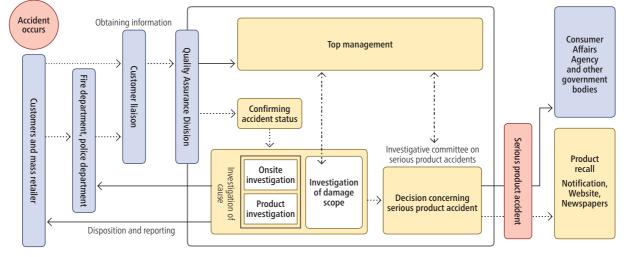
- †1 Basic Reliability Course: Deepens understanding of such basic issues as Hitachi's monozukuri craftsmanship, quality management, and labor safety. 12 Intermediate Reliability Course: Boosts understanding of more practical
- issues in such areas as Hitachi monozukuri craftsmanship, ISO 9001 certification, defect elimination, design for reliability, and purchasing and vendor management.



#### **Response Flow in the Event of Product Malfunction**

At the same time, we promptly comply with legal requirements to report to government agencies. Hitachi publishes the incident information through our website and other channels.

When we decide that a product recall is necessary, we notify the public through newspaper advertisements or our website, then repair or replace these products. Our website also provides detailed product safety information.



 $\cdots$  : Flow of information  $\longrightarrow$  : Report  $\langle - \rangle$  : Sharing of information

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# **Ensuring Hitachi Product Safety**

In line with Hitachi's Customer Satisfaction (CS) Management Guidelines, which take the avoidance of accidents as their baseline, we have instituted a range of measures for eliminating consumer appliance accidents. For example, since fiscal 1987 we have been testing worst-case scenarios, such as deliberately creating a fire inside a product to confirm that the fire will not spread outside it. As of fiscal 2006, we have also been conducting product safety risk assessments at the development stage, creating "accidents" that might be caused by misuse.

Of serious product accidents occurring in Japan, there were as many as 2,297 fires in electrical products between May 2007 and March 2011.<sup>+1</sup> By product, room air conditioner accidents were the most common, but not a single one of these room air conditiones was from Hitachi. We will continue to make all our consumer appliances even safer in accord with our own voluntary action plan for product safety.

1 Ministry of Economy, Trade and Industry website

### **Customer Satisfaction**

Using the Customer Satisfaction (CS) 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." We use CS surveys tailored to each business operation. We also analyze customer opinions submitted to the Hitachi Customer Answer Center, reflecting the information learned from our product development and business operations.

We regularly host the Hitachi Group Service Business Liaison Council meetings, chaired by the president, whose other members are presidents and department officers from across Hitachi companies. Participants at these gatherings share information to reinforce after-sales service for products and systems, including repairs and maintenance, and use that information to improve service quality and to ensure appropriate service costs. At the time of the Great East Japan Earthquake, cooperation among many departments enabled the smooth delivery

of emergency vehicles and emergency supplies to affected areas.

**Customer Satisfaction Management Guidelines** • Our customers determine the value of products and services · Information from our customers is the source of

- improvement
- · Offer prices and quality that are competitive
- · Respond rapidly to keep our promises to our customers
- · Adopt systems that prevent accidents and minimize their impact

Formulated in 1994

#### Website Customer Support

Our website provides comprehensive customer support. It enables us to process customer inquiries, opinions, requests, and complaints-in collaboration with the customer support offices of Hitachi Group companies—to improve our business operations as well as products and services. We also use educational and other programs to speed up and improve our response to these inquiries.

One of our initiatives is to hold the Web Inquiry Responsiveness Improvement Course, something we have done since fiscal 2009. To date, 253 Hitachi Group employees have taken this course, which features case studies based on responses to inquiries. Going forward, we will collaborate with Group companies to respond more quickly and effectively to customer inquiries, using this website as an important point of contact.

#### **Electronic and Electric Equipment**

The Electronic & Electric Equipment Customer Satisfaction Division has enabled the expansion of Hitachi business from electronic and electric equipment to the environment business by drawing up a vision for environment value creation, actively promoting various service areas, including business.

The Hitachi Contact Center for Customer Support and website handle customer inquiries and complaints about LCD TVs, washing machines, and other appliances. The center receives about 600,000 phone calls and e-mails a year. We have undertaken the following initiatives to better respond to

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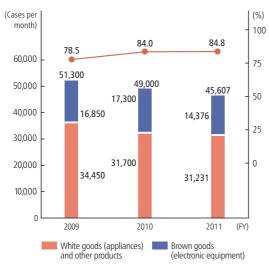
inquiries and to reflect customer feedback in our monozukuri craftsmanship:

- Third-party assessments of customer support center employees
- Design, guality assurance, and staff, listening to the "voice of the customer" and studying the solution
- Improved connectivity by flexible management for operators
- Creating a database of direct customer feedback, including consultations, questions and complaints
- Enhancing our website FAQs

We also conduct semi-annual customer service evaluation surveys at 100 service centers around Japan. Based on the survey findings, we improve service by upgrading employee education, especially through CS training courses and CS improvement months.

With the expansion of Hitachi's markets outside Japan, sales offices have been opened in seven

### **Customer Contact Figures without Repair Request**



Voice of the Customer Flow Chart

countries in Asia and the Middle and Near East, as of fiscal 2011. We are also working to unify management of our operations outside Japan.

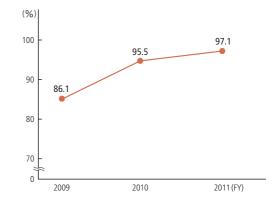
## Information and Telecommunication Systems **Management and Maintenance**

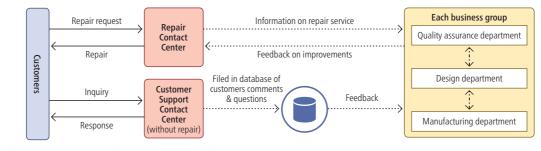
As an IT company supporting social infrastructure and public institutions, our Information and Telecommunication Systems Management and Maintenance Division supplies solutions for customers' management issues and infrastructure development, seeking to create new value that will bring our customers satisfaction and excitement.

To position Hitachi for greater customer satisfaction, the division has launched the following initiatives within the company:

- Determining key performance indicators to improve Hitachi products and services
- Holding regular top-level discussion and sharing information among the various business divisions

#### **Results of Evaluation Survey for Customer Repair Service**





→ : Response activities ·····> : Flow of information <--> : Sharing of information

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- Improving customer surveys to ensure the effective collection of and response to "customer voices"
- Enhancing or adjusting customer satisfaction incentive programs

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The Regional Office CS Improvement Committee meets every month to share information on the situation out in the field. Company-wide issues are debated by all regional office presidents, while final decisions on issues requiring managementlevel assessments are made by the Senior Executive Committee.

To ensure that customers receive outstanding service, we supply one-stop service and use "customer voice" cards to ensure effective information gathering and analysis. To boost the skills of systems maintenance and repair staff, we introduced Practical Basic Action (a basic operation license scheme), and we also hold service skill competitions to boost proposal skills.

Our sustained commitment to these initiatives led Hitachi Electronics Services Co., Ltd. (Hitachi Systems since October 2011) to receive the Customer Satisfaction No. 1 rating in the systems operation services division of *Nikkei Computer*'s Customer Satisfaction Survey in fiscal 2011.

Looking ahead, in addition to building a disaster-resistant, next-generation IT infrastructure, we also plan to develop a more global system, deploy-

	FY 2009	FY 2010	FY 2011
Service level <sup>†1</sup>	92.7%	93.4%	93.1%
AHT <sup>†2</sup>	9 minutes 43 seconds	9 minutes 17 seconds	8 minutes 57 seconds

#### **Hitachi Systems Performance Data**

**†1** Rate of calls picked up within 10 seconds.

12 Average Handle Time (processing time between receiving a call and registering data)



Service skills competitions

ing support services for customers expanding their operations outside Japan, particularly in China and seven other Asian countries.

# Management for Elevators and Escalators and Building Facilities

Hitachi provides safe, comfortable, convenient elevators and escalators and maintenance services geared to our customers' diverse needs. We also offer high value-added services for integrated building management, including security and energy saving.

For building facilities management, in response to customers' needs to improve the efficiency of their management operation, we provide systems that support customers' businesses. For example, we developed BIVALE, an integrated building facility management system that unifies, using the Internet, the management of energy, security and building facilities at multiple buildings.

Our maintenance services subsidiary, Hitachi Building Systems Co., Ltd., has 350 service sites around Japan to swiftly respond to customers' needs. State-of-the-art remote building monitoring and diagnostic systems observe and analyze elevators, escalators, and building facilities—24/7—for preventive maintenance. Hitachi Building Systems also created the *HBS Mindbook* to educate all employees to think and act from the customer's perspective.

For risk management, learning from the lessons of the 1995 Great Hanshin Earthquake, we created a wide-area disaster response manual in fiscal 1996. As of fiscal 2006, we have also instituted annual wide-area disaster response training, making improvements based on the lessons that arise. This training paid off during the Great East Japan Earthquake in March 2011, enabling us to move quickly to establish a disaster response headquarters and send people to assist in the disaster areas.

## **Universal Design**

We promote Universal Design (UD) by improving the quality and ease of use, accessibility, and life cycles of our products. Quality of use means focusing on the traits that make people feel that the product is

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easy and enjoyable to use. Accessibility refers to the range of people who can use a product or service. Life cycle covers all the stages of the value chain from product choice through to disposal.

In keeping with the UD philosophy, we draw on basic research into consumer behavior and their characteristics to formulate UD guidelines and reflect these in product development, ensuring the involvement of customers and experts at every stage. The information obtained during product development goes into a database that our businesses share, and we distribute some of this information externally to promote open source standardization and education.

## **Digital and Home Appliances**

We define people as customers as soon as a product interests them, so it is essential to consider quality in everything from pre-sales to disposal with an eye on Universal Design. Key attributes are usability, features, harmony with the environment, safety, and maintenance. Our intention is to tailor products to people's needs and lifestyles so that they become attached to them.

Our UD focus extends beyond products to include product manuals. For example, we are working with the NPO Kanagawa Information, Employment and Welfare Network for the Visually Impaired to make our manuals available as 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. The text file is then placed on the Web so that the visually impaired can use our products safely and easily. Text files are created based on feedback from visually impaired people who have actually operated and verified products while listening to the instructions on the text files. To spread this initiative more widely, we are using external groups as a way to reach beyond the Hitachi Group and are calling on other companies for their cooperation.

We have also launched a range of measures to improve the accessibility of increasingly complex consumer electronics appliances for the elderly and disabled. DVDs providing clear explanations on product use are included with products, while some products are equipped with a "talking"

button that instructs, indicates status, and helps resolve problems.



"Talking" button on a drum washer-dryer

## **Public Equipment and Systems**

Public equipment and systems are used by a large and unspecified number of people either individually or at the same time in public spaces such as public buildings, stations, railways, and hospitals. Because of the public nature of the spaces where they are used, design must also address not only ease of use but also security, privacy, and safety. A wide range of end-users need to be considered, from children through to experts such as doctors and technicians.

For example, our multi-slice CT system<sup>11</sup> responds to the needs of doctors and technicians as well as patients. A broad table that slides from side to side reduces the physical burden on both patients and medical staff, while a large-diameter X-ray tube means that a variety of physiques can be examined with ease.



Multi-slice CT system

11 Multi-slice CT system: A computerized tomography (CT) system that configures multiple X-ray images to create a volumetric (3D) image.

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Multi-slice CT system table that slides from side to side

## UD for Web and Information Systems

These systems are universally vital for gathering information and communicating. Particularly for people with disabilities who have difficulty accessing information, it is essential that systems are accessible, usable, and secure.

We are promoting UD in our web and information systems using the Web Content Accessibility Guidelines (WCAG) 2.0,<sup>+1</sup> an international standard for ensuring accessibility. Examples of this 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.

Our color-adjustable web screen development tool enables web page color schemes to be customized for people who have trouble differentiating colors, including fonts, backgrounds, frames, and all the other elements of a web page. This tool makes it easy for website developers to select appropriate colors, while end-users can customize screen color schemes.



Color-adjustable web screen development tool

\*1 Web Content Accessibility Guidelines (WCAG) 2.0: Guidelines created by the World Wide Web Consortium (W3C) that form the basis of the JIS standard on information communications and web content. Currently under deliberation at the International Organization for Standardization (ISO) for adoption as an ISO standard.

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# **Communication with Shareholders and Investors**

To ensure that shareholders and investors can make sound investment decisions, we provide the information they need in a fair, transparent and appropriate way that enhance communication with them.

## **Policy on Information Disclosure**

We communicate with shareholders and investors guided by 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, including their relation to creating sustainable long-term value.

### **Disclosure Policy**

### 1. Basic Policy

Hitachi's Corporate Credo 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 all stakeholders, including shareholders and other investors, customers, business partners, employees and regional communities. We will fulfill our 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 way, in compliance with the laws and regulations of the stock exchanges on which the Company is listed.

Hitachi discloses not only information required by laws and regulations, but also management and financial information that is regarded as useful in deepening stakeholder understanding of Hitachi management policy and business activities. Hitachi also discloses non-financial information on the social and environmental impact of Hitachi Group 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 laws and regulations of the stock exchanges on which the Company is listed. The Company also posts this information on Web sites immediately after it is disclosed. Hitachi also discloses information not required by laws and regulations by distributing news releases, holding press conferences and presentations, posting information on Web sites, 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

For 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 forwardlooking 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.

## **Proactive IR Approach**

Our range of investor relations (IR) activities include business strategy meeting 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 2011, we held quarterly financial results briefings, and corporate strategy meetings on the progress of the 2012 Mid-Term Management Plan. We hosted a Hitachi IR Day, where company presidents and CEOs explained their business strategies under the 2012 Mid-Term Management Plan. Feedback from institutional investors and analysts was positive. Their comments included, "Hearing explanations from the heads of the various businesses enabled us to better understand these, which I found useful for analysis" and "It was a significant event for dialogue between the capital market and management." We intend to hold this event regularly. We also conduct one-on-one meetings with institutional investors and analysts worldwide, holding more than 550 of these meetings in fiscal 2011. Senior managers visit institutional

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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 briefings and other materials on our IR website. Part of this site was specifically designed for individual investors, providing information that cultivates a deeper understanding of the Hitachi Group.

#### WEB Investor Relations http://www.hitachi.com/IR-e/index.html



The corporate strategy meeting on the progress of the 2012 Mid-Term Management Plan

### **Disclosure Tools**

- Financial results
- · Annual and quarterly reports in accord with the Financial Instruments and Exchange Law of Japan
- Annual reports
- Hitachi Group Corporate Sustainability Report

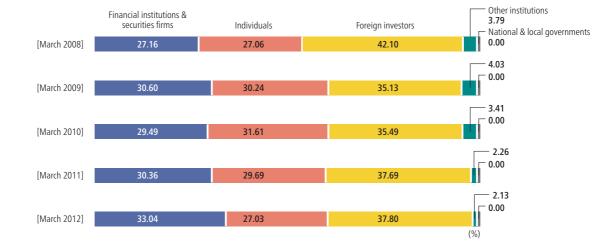
# **General Meeting of Shareholders**

At the ordinary general meeting of shareholders, we offer audio-visual reports designed to give shareholders a thorough understanding of our situation. After the general meeting of shareholders, our website discloses management policy explanations from the president for shareholders and investors. We post notices of general meetings of shareholders earlier than legally required to give stakeholders more time to consider our proposals.

# Hitachi as an SRI<sup>+1</sup> and ESG<sup>+2</sup> Investment

The Hitachi Group performed well in external assessments as a socially responsible and sustainability investment committed to the principles of ESG.

Since fiscal 2009, DJSI World, a leading global sustainability investment index, has chosen Hitachi, Ltd. as a component stock for three years in a row. This benchmark assesses the sustainability of around 2,500 companies worldwide, based



### **Trends in Shareholder Composition**

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### **Results of SRI Assessments in Fiscal 2011**

Institution	Index	Companies selected
SAM	DJSI* <sup>1</sup> World	Hitachi, Ltd.
	DJSI Asia Pacific Index	Hitachi, Ltd. / Hitachi Chemical Co., Ltd.
EIRIS	FTSE4Good Global Index*2	Hitachi Chemical Co., Ltd. / Hitachi Capital Corp. / Hitachi High-Technologies Corp. / Hitachi Construction Machinery Co., Ltd. / Hitachi Koki Co., Ltd.
Morningstar	SRI Index	Hitachi, Ltd. / Hitachi Cable, Ltd. / Hitachi Chemical Co., Ltd. / Hitachi Construction Machinery Co., Ltd. / Hitachi High-Technologies Corp.

 \*1 DJSI (Dow Jones Sustainability Index): A global sustainability investment index that was developed by Dow Jones & Company (U.S.A.) and Sustainable Asset Management (SAM) Group (Switzerland). The Asia Pacific Index—covering Japan, Asia, and Australia—was launched in 2009.
 \*2 FTSE4Good Global Index: An index developed in the UK by Ethical Investment Research Services (EIRS), which evaluates corporations, apart from specific industries, based on their environmental, social, and human rights performance.

on economic, environmental, and social dimensions to select the top 10 percent of companies in each industry. Our environmental initiatives again scored the highest among all the companies. Global sharing of the Hitachi Group Codes of Conduct (17 languages) was rated under economic dimensions, while our consideration of medium-term priorities for strategic social contributions rated highly under social dimensions.

We also received the Silver Class (in the Electronic Equipment Sector) for the third consecutive year in the Sustainability Yearbook 2012 published in January 2012 by SAM<sup>†3</sup> and KPMG.

- 1 SRI: Socially responsible investment, where investment funds evaluate companies and select stocks from a CSR perspective.
- t2 ESG: Environmental, social and corporate governance (ESG) have become the main factors for investors to measure sustainability of an investment in a company
- 13 SAM: Sustainable Asset Management. A Swiss sustainability investment research and asset management company.

# **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 period of time. For this reason, 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 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 stock nor is there a specific threat, neither does the Company intend to implement specified 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 expected by 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 when a party attempts 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 the buyout will not maintain the Company's value and is not in the best interest of the shareholders, then the Company will guickly 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.

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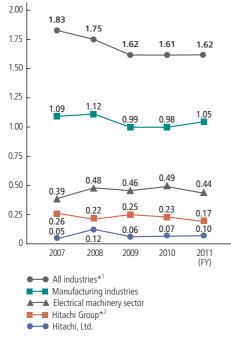
# **Employee Health and Safety**

Based on the Hitachi Group's Policy, which makes the health and safety of employees a key priority, Group employees join together to create safe, secure work environments that are accident free.

## **Health and Safety Programs**

Based on top management policies, each company and business unit maintains a health and safety program matching its specific work health and safety management system. People in every workplace collaborate on programs that improve health and safety management standards. We reinforce basic activities, such as workplace patrols and job-based education, based on the nature of the business site. We also work to reduce the risk of accidents by more thoroughly assessing risk to steadily reduce accident numbers.

### **Trends in Occupational Accident Rates**



- 1. For 2011, only figures for Hitachi, Ltd. and the Hitachi Group were available
- 2. 90 major Hitachi Group companies in Japan excluding Hitachi, Ltd.

# Measures for Improving Health and Safety

Despite our health and safety programs, we have unfortunately experienced occupational accidents that affect employees of Hitachi, Ltd., Hitachi Group companies, and their affiliates. The entire Group takes seriously the fact that such accidents were allowed to happen, and we have implemented measures that further improve the health and safety management standards.

## Health and Safety Presentation and Conference

Once a year, we hold the Hitachi Group Health and Safety Research Presentation Meeting for Hitachi health and safety officers. The 55th gathering, in December 2011, attracted 250 participants. They shared their newfound knowledge from case studies and heard special lectures from outside experts on ideas that could benefit health and safety activities at every business site. Around 100 industrial healthcare workers within the Hitachi Group, such as industrial physicians and nurses, participated in the 11th Hitachi Group Industrial Health Conference in January 2012. After presentations on specialized research, the participants discussed qualitative improvements in industrial health programs at business sites and talked about training for industrial healthcare workers.



55th Hitachi Group Health and Safety Research Presentation Meeting

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Hitachi Group Key Safety Management Designation System

In fiscal 2011, we introduced a system to find Hitachi Group companies and business sites that have experienced serious occupational accidents to encourage them to improve safety. These companies and business sites then take on both management-driven and bottom-up initiatives under the leadership of top executives. As well as extensively investigating the cause of serious accidents, the workplaces that had these accidents have now reorganized their companywide safety management systems and have formulated more safety-oriented programs.

## Launching the Hitachi Group Health and Safety Portal System

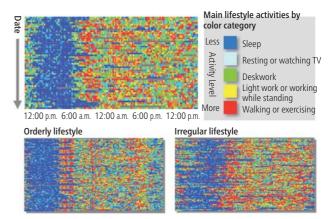
We constructed the Hitachi Group Health and Safety Portal System to ensure that every Hitachi Group company can track the progress of Hitachi health and safety management initiatives. The system also promotes the sharing of information on accidents within Hitachi, including causes and responses from a register on all occupational accidents, the goal being to prevent similar mishaps.

# Life Microscope: A Support Tool for Returning to Work after a Mental Illness

Life Microscope is the fruit of collaboration between the Hitachi Group's internal research laboratories and industrial doctors. This wristband lifestyle monitor incorporates a three-dimensional acceleration sensor and power supply to record a wearer's real-time movements and temperatures. This device records detailed activity levels, sleeping times, and other data. Used within a fully secure, cloud-based environment, this tool helps improve

Wristband lifestyle monitor

the rhythms of life for employees returning to work after mental illnesses, and has proven effective in preventing relapses.



Visualizing life rhythms as part of the tapestry of life

# Recognition for an Outstanding Occupational Safety Record

Based in Totsuka Ward, Yokohama, the Telecommunications and Network Systems Division of Hitachi, Ltd. extended their industry record of work time accident-free hours to 145,851,129 as of March 31, 2012, remaining number one in Japan. In line with the Hitachi Group Health and Safety Award Program, we award Hitachi Group companies that either extend accident-free records or win external prizes for health and safety. In fiscal 2011, we recognized Hitachi-kucho SE, Ltd. for continuing to improve their record after achieving a Class 5 zero accident rate, acknowledged by the Ministry of Health, Labour and Welfare.



Hitachi Group Health and Safety Award ceremony

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Responses to Natural Disasters

We responded to the Great East Japan Earthquake in March 2011 by offering support, mainly mental healthcare, to Hitachi Group employees and their families. In addition, we

- provided stress management courses in disasterstricken areas.
- launched a consultation service in collaboration with a corporate health insurance organization.
- sent industrial healthcare workers to disaster area worksites to set up industrial medical systems.

Several Hitachi Group plants were flooded in Thailand in 2011. We sent industrial physicians to these business sites in November before restoration began. These doctors fostered the health and safety of employees at these business sites by creating health and safety guidelines, particularly to prevent infectious diseases and to ensure safe restoration work.

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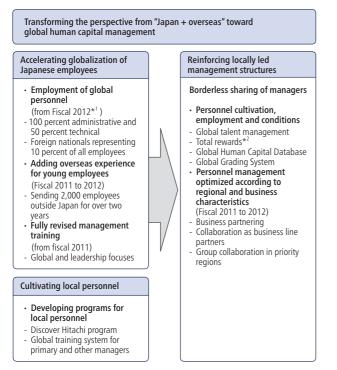
# **Global Human Capital Development**

Hitachi is globalizing operations, especially in the Social Innovation Business. To keep pace with the growing proportion of sales generated outside Japan and our strategy for the global marketplace, we are developing globally minded leaders and local management and cultivating new, globally focused human resource management systems.

# **Global Human Capital Management** Strategy

Hitachi, Ltd. created the Global Human Capital Management Strategy to support the Group's worldwide expansion, establishing the Global Human Capital Division on July 1, 2011 to drive that strategy. The new division establishes a common framework for human capital (resource) management, while optimally matching human capital

### **Global Human Capital Management Strategy**



\*1 New graduates joining in April 2012

\*2 Comprehensive remuneration that combines growth, study opportunities, and other non-financial factors, with salaries and other financial compensation

management programs with the specific requirements of regions, businesses, and market needs in collaboration with other business divisions. We consider Japan as important a region as the Americas or Europe. We intend to further develop global human capital management framework, systems, and knowhow, and implement them globally.

At Hitachi, we project sales outside Japan for each business in our long-term business plans. For greater accuracy, we developed a template that simulates adjusting work categories, timing, and the number of employees, managers and leaders to ensure that there are enough people to reach these projections. The template calculates the gaps between available and required personnel. We will continue to plan and deploy human resource programs to eliminate these gaps.

# Accelerating the Globalization of Japanese Employees

In the years ahead, we will need many Japanese nationals to cultivate markets outside Japan. We are intensifying these efforts in fiscal 2011 and 2012.

We are also accelerating programs centered on (1) recruiting people for global operations, (2) providing more young employees with experience outside Japan, and (3) comprehensively revising our management development program.

### **Recruiting for Global Operations**

To secure the right people for business globalization, we are opening up employment opportunities and strengthening management diversity. From fiscal 2012, we categorized all administrative employees and half of all technical employees graduating from universities and technical colleges as global business personnel. This categorization covers 450 of the 750 recruits from universities and technical colleges that joined us in April 2012. Our priority for employing global business personnel is to attract people who are eager to build on their foreign language skills and who want the challenge of work-

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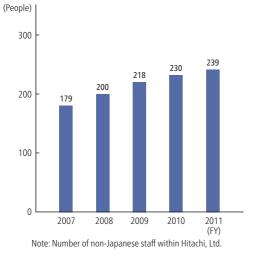
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ing in different cultures as well as social settings and work environments.

We are committed to employing the right talent, regardless of nationality, who have studied abroad. In fiscal 2012, we recruited around 10 Japanese and non-Japanese graduates from overseas universities. There were around 40 non-Japanese among all the recruits from universities and technical colleges in fiscal 2012.





# **Providing More Young Employees with Overseas** Experience

We maintain broad programs to systematically cultivate and secure people who can succeed in global business. To create a pool of people who can understand and adapt to local cultures and lifestyles, we decided to have some of our younger employees live outside Japan. We intend to dispatch 2,000 young employees in fiscal 2011 and 2012, allowing them to take part in more than 100 programs, including apprenticeships, local field studies, and language studies. We sent 1,064 employees outside Japan in fiscal 2011 (more than 10 times the number a year earlier) and plan to dispatch about 1,000 in fiscal 2012.

# **Comprehensive Revision of Management Development Program**

We help employees to develop their skills by offering on-the-job training and supplementary training programs. The Hitachi Group's training facilities include the Hitachi Institute of Technology, the Hitachi Institute of MONOZUKURI Skills and Engineering, and the Hitachi Institute of Management Development, which maintains many of the training programs. These programs cover management development, training for engineers, production worker training, training for globalization, sales education, and job-based training. In fiscal 2012, we completely revised some programs at the Hitachi Institute of Management Development, shifting the focus to successful global leadership. We also created job-based and selection training programs to cultivate leaders at all levels. In 2011, about 2,300 employees participated in these programs.



Management Development Program

# **Developing Local Personnel**

With our operations taking on an increasingly global focus, it is essential that all managers working on the global frontlines understand our history, founding spirit, company operations, common values, corporate philosophy, and basic management skills. Since fiscal 2006, we have provided the Global Fundamental Course for primary Hitachi Group managers to instill an understanding of our core values among all our people. These core values include harmony, sincerity, and the pioneering spirit that underpins Hitachi. The course also covers the Corporate Credo and guidelines for conduct. In 2011, 139 managers took this course. We will continue offering this course, while broadening the regions and personnel covered and improving training methods.

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## **Reinforcing Local Management**

We are reinforcing local management through programs that share executives throughout the entire Group.

For example, we constructed the Global Human Capital Database to cover all Hitachi Group employees, excluding factory workers outside Japan. This database enables us to visualize our Group human capital, in and outside Japan, and to assess such macroeconomics as allocating human resources. We will encourage the inclusion of information from this database into Group company human resource management. Also, we are building a global grading system that will apply to all managers in the Hitachi Group, in and outside Japan. This new system will be a common platform for job evaluations throughout the entire Group.

In-house and Group companies are collaborating to optimize human capital management in keeping with regional and business requirements. By the end of 2011, we completed surveys in 11 key regions outside Japan (excluding China). And we will draw on the results of these surveys to develop managers who are familiar with each region, helping to grow our business.

Hitachi Group Sustainability Report 2012 120 http://www.hitachi.com/csr/

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# Social Contribution Activities

Hitachi's wide-ranging social contribution programs are tailored to local needs, but help to resolve the challenges facing a global society. Particularly in emerging countries, we are tackling poverty, hunger, disparities in education and medical care, and environmental issues.

# **Philosophy and Policy**

We approach social contributions using our Social Contribution Philosophy and Policy, keeping in mind our Group Vision of "tackling the basic issues faced by global society." Committed to resolving basic social issues at both the global and local levels, we have selected medium-term priorities for education, the environment, and social welfare for fiscal 2012 onward, pursuing a range of programs in and outside Japan.

Our social contribution activities and the support we provide for volunteer work by employees help us to build trust with communities as a good

### **Social Contribution Philosophy and Policy**

#### Philosophy

The Hitachi Group strives to demonstrate good corporate citizenship in response to social needs and expectations, while endeavoring to enrich the quality of life and realize a better society.

## Policy

The Hitachi Group promotes various social contribution activities to build a vibrant society based on fostering leadership to implement reformation for the next era. This is achieved by making optimal use of our knowledge and information technology in three specific areas: education, the environment, and social welfare.

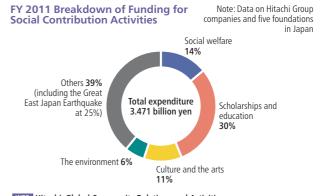
Adopted February 2002

### **Mid-Term Priorities for Social Contribution** Activities

- 1. Education: Community development activities to support the development of the next generation
- 2. Environment: Promotion of global environmental sustainability based on Hitachi's Environmental Vision
- 3. Social Welfare: Empower economically and socially vulnerable people

corporate citizen. They also inspire the expression of individuality, more flexible thinking, and greater commitment in those employees who volunteer. These in turn become a source of strength driving our Social Infrastructure Business, enabling us to contribute to the development of both local communities and sustainable business.

In fiscal 2011, Hitachi Ltd., 939 Hitachi Group companies, and the five foundations in Japan contributed around 3.5 billion yen as social contributions.



WEB Hitachi: Global Community Relations and Activities http://www.hitachi.com/csr/sc/index.htm

## Education

Monozukuri, the heart of our business manufacturing approach, is founded on sound human resources. We instill a keen sense of social awareness in our engineers through their communication with society and we nurture their ambition and technical capabilities to overcome new challenges and achieve their dreams. We do this to ensure that the technical and other expertise that our people have accumulated is useful for the development of the next generation of engineers.

## **Providing Educational Support in Emerging Countries**

Emerging markets are vital to Hitachi's business, while these same markets urgently need to create outstanding engineers and technicians to drive national development. We provide support for the

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development of young engineers and technicians in these countries.

The Hitachi Scholarship Foundation operates a scholarship program to provide financial support to outstanding faculty members in the natural sciences from Southeast Asian universities. In fiscal 2011, five faculty members were invited to Japan from three countries to attend an orientation in September. They were briefed on the Hitachi Scholarship Foundation's philosophy, the screening process, the scholarship program, and Hitachi, Ltd. They also visited Hitachi, Ltd.'s Hitachi Works and Hitachi High-Technologies' Naka Works, deepening their understanding of cutting-edge manufacturing and the current state of R&D.



In front of the original building at Hitachi Works

To support the self-sufficiency of young people in the Lao People's Democratic Republic (Laos), Hitachi Plant Technologies, Ltd. worked with the Lao Ministry of Labor and Welfare to set up the Bokeo Welding Training Center within the Sonpao Welfare School in Bokeo Province in April 2009. Hitachi Plant Technologies continues to support the operation of this center.

Laos is an agricultural nation blessed with natural resources, but the country lags behind neighboring Southeast Asian countries in economic development, and ensuring youth employment has become a social issue. To help young people acquire skills, Hitachi Plant Technologies donated welding equipment and provided other forms of support for opening the school.

Since the school opened, an instructor was sent from Japan to provide instruction based on Hitachi Plant Technologies's original curriculum. As of March 2012, 61 students have completed training, and those who met technical standards were awarded a certificate of completion.



Students at the Bokeo Welding Training Center

### **Supporting Science Education**

We provide children with many opportunities to learn to be inspired about science, technology, engineering and math. Our goal is to overcome an increasing disinterest in science, math, and technology among the young generation and stimulate their interest and desire to learn.

The Hitachi High-Technologies (HHT) Group uses electron microscopes to provide educational support in countries around the world. In Europe, HHT has been supporting the nanoTruck, a project launched in 2010 by Germany's Federal Ministry of Education and Research. A specially modified truck containing scientific multimedia presentations and experimental equipment travels the country introducing nanotechnology to the general public.

Also, a public lecture was held in Tokyo in September as the Japanese version of the popular Royal Institution Christmas Lectures that have taken place in the United Kingdom for more than 180 years; children using electron microscopes experience the wonders of science. In the United States, HHT and the National Institute of Standards and Technology (NIST) held workshops for local junior and senior high school science teachers and provided suggestions on using electron microscopes in the school science curriculum. We will continue our commitment to science education, including our membership in Change the Equation.<sup>†1</sup>

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Royal Institution Lecture in Tokyo

In November 2011, Hitachi Metals, Hitachi, Ltd., and Hitachi Plant Technologies held the Hitachi Science Seminar series at Tokyo's Science Museum entitled The Fascinating World of Magnets. Many children experienced the mysteries of magnets. This program was launched so that Hitachi Group companies could communicate the skills and knowhow developed through the Group's *monozukuri* experience in an enjoyable way to encourage children's interest in science. We will continue holding these fun and educational hands-on seminars on themes from the knowledge areas of various Group companies.

+1 Change the Equation: An NPO set up following a call from the Obama Administration to improve students' abilities in science, technology, engineering and math.



Children experiencing the world of magnets

## TOPICS

### **Hitachi Young Leaders Initiative**

Hitachi, Ltd. and Hitachi Asia Ltd. have been operating the Hitachi Young Leaders Initiative since 1996 to identify and nurture potential Asian leaders. Major themes in this program are Asia's sustainable development and economic integration; other themes include the environment and changes in energy policy accompanying economic development, and Asia's role in global markets.

In fiscal 2011, a program was held in Hanoi, Vietnam, called "The New Stage for Asia—An Asian Perspective on Managing Sustainable Development and Economic Integration." A select group of 28 university students from Japan and six other Asian nations heard presentations and a panel discussion featuring the deputy prime minister of Vietnam, the governor of the Bangkok Metropolitan Administration and other key figures. The students participated in group discussions on topics including sustainable energy options and moving toward an economically integrated community. Through this event, we intend to deepen students' understanding of other cultures and to foster friendships among students from other countries, as well as boost their awareness of common Asian social issues. We help these young leaders to build the global skills they will need in the future.

One student noted that while already interested in national and local development, participating in the program with students from seven Asian countries boosted that interest further, inspiring her to continue studies at a postgraduate level. She was also convinced that the wonderful friendships she had made through the program would continue into the future.



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### Some Other Hitachi Group Education Initiatives

Company	Initiative	Overview
Hitachi Group	Universal Design (UD) classroom program expanded outside Japan	For this program, where Hitachi Group employees teach children the importance of UD, in the United States 31 classroom visits have been made since fiscal 2009 with 688 children participating; in the UK, since the program launch in fiscal 2011, 30 children have participated. Preparations are underway to introduce this program in Malaysia.
Hitachi Solutions, Ltd.	Information Ethics Education	This program teaches children personal information ethics and other information society issues from the perspective of an IT company. In September 2011, a two-day program was held at the Tokai Junior High School in Shinagawa Ward, Tokyo. On the first day, students learned about the convenience of IT as a tool for communicating information. On the second day, a workshop was held using a simulated Internet bulletin board so that students could put up their own messages, teaching them how the convenience of IT goes hand in hand with some danger and risk.
Hitachi America, Ltd.	Non-Profit Forum	Since fiscal 2009, Hitachi America, Ltd. has provided knowhow and resources in co- sponsoring this event with the Wilson Center at Pace University, NY. The free forum promotes exchanges among local non-profit organizations (NPOs) and encourages their activities. Called <i>Inspired Education: Learning, Teaching and Technology</i> , the February 2012 forum welcomed panelists working in education, who held a lively discussion on technologies for education, including interactive whiteboards and web databases. The audience of around 100 included representatives from many local NPOs, students, and educators.



UD classroom visits in the UK (Hitachi Europe, Ltd.)



Information ethics education (Hitachi Solutions, Ltd.)



Non-Profit Forum (Hitachi America, Ltd.)

# **The Environment**

Hitachi's environmental management mitigates increasingly serious global environmental threats and helps to achieve a more sustainable society. In our social contribution activities too, Group employees and members of their families are involved in planting trees and other environmental protection projects that also foster their environmental consciousness in keeping with the two main Environmental Vision priorities: preventing global warming and preserving ecosystems.

# **Environmental Science Cafés**

The Hitachi Environment Foundation has been holding "Science Café" events since 2011. Participants deepen their understanding of environmental issues over a cup of coffee with experts and researchers who look at environmental issues from a scientific perspective. At the first five lectures, held between February and October, Professor Ryuji Tada, a paleoenvironmental scientist from the Graduate School of Science, The University of Tokyo, spoke on the science of climate change, followed by



Discussion with Professor Tada from The University of Tokyo

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Q&A sessions and exchanges of views with a total of 190 people. At the sixth lecture, held in November at the National Museum of Nature and Science, Professor Gaku Kimura, a leading expert in structural geology, also from the Graduate School of Science, The University of Tokyo, spoke on new earthquake science with an audience of 100 from several generations. The speaker at the seventh session in February 2012 was the Meteorological Research Institute's Dr. Hirotaka Kamahori, who addressed 40 people on extreme weather and climate change.

### **Green Curtain Project**

The Hitachi Group has operated the Green Curtain Project, growing vines, such as bitter gourds and loofahs, on the windows and walls of buildings to reduce indoor temperatures. In fiscal 2011, green curtains were grown at more than 300 locations, including factories, branch offices, and training centers, as well as at the homes of interested employees, as part of the Hitachi Group Summer Energy Conservation Campaign. To publicize this project, we held the Hitachi Group Green Curtain Contest, presenting awards to groups (offices) and individuals (employees and their families).



Green curtain at Hitachi Chemical Automotive Products (Thailand) Co., Ltd.

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### **Other Hitachi Group Environmental Protection Programs**

Company	Initiative	Overview	
Hitachi Construction Machinery (Shanghai) Co., Ltd.	Afforestation of the Horqin Desert	n of the Horqin Desert Since fiscal 2005, the Hitachi Construction Machinery (Shanghai) Forest Project has l entrusted by G-Net, an environmental NGO, to restore vegetation in the Horqin Dese Inner Mongolia, China. In fiscal 2011, maintenance work continued, including fixing fe and irrigating seedlings. As a result, around 80 percent of local villages are now ab secure enough kindling and to gather enough food to feed four cattle through wi showing steady progress in the transition to sustainable land use.	
Hitachi Display Devices (Suzhou) Co., Ltd.	Support for afforestation	In May 2011, more than 700 employees sold some 1,370 items at a flea market organized by the Suzhou Industrial Park Environmental Protection Office, donating CNY 1,420 (approximately 17,000 yen) to the China Green Foundation. The money was used to plant 284 trees.	
Hitachi Global Storage Technologies Philippines Corp.	Mangrove planting	In July 2011, the company joined a mangrove planting event held by the Laguna Technopark CSR Group, made up of companies located within the technopark. About 6,500 mangrove seedlings were planted along the coast at Sariaya, Quezon, by 236 people from 19 companies.	







Mangrove planting (Hitachi Global Storage Technologies Philippines Corp.)

# Horgin Desert afforestation (Hitachi Construction Machinery (Shanghai) Co., Ltd.)

Flea market (Hitachi Display Devices (Suzhou) Co., Ltd.)

# **Social Welfare**

We also support social welfare projects to ensure that everyone can enjoy the benefits of technological progress, placing special emphasis on promoting the education of the young, the independence of people with disabilities, and helping the elderly.

## **Buy and Help Society! Bazaars**

Since fiscal 2010, the Hitachi Group has been planning and holding mini-events at which employees can buy products from NPOs, such as international cooperation organizations and welfare workshops, as a way of easily and pleasantly making a social contribution. In September 2011, we asked Nozomi-en and Yokohama City Council of Social Welfare's Heart Made to bring baked goods and other items to the Hitachi, Ltd.'s headquarters conference room. More than 300 employees went to the bazaar, spending around 140,000 yen, which went to help the two organizations. We plan to expand this program to other regions.



Buy and Help Society! bazaar

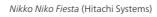
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	090	0	Supply Chain Management	115	Employee Health and Safety
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### **Other Hitachi Group Social Welfare Initiatives**

Company	Initiative	Overview
Hitachi Group	Table for TwoSix Hitachi Group companies participate in this program, which is design food imbalance between developed and developing countries. When a a healthy meal or a smaller than usual helping of rice, 20 yen per meal the Table for Two Program for school lunches provided to children in de In fiscal 2011, 4 million yen was donated. In September, Masahisa Kog NPO Table for Two International, was invited to give a Social Contributi attended by around 50 people.	
Hitachi Systems, Ltd.	Sponsoring a soccer competition for intellectually handicapped children and adults	Hitachi Systems supports the NPO Traços, which operates a soccer club for intellectually handicapped children and adults. Fifteen employees volunteered at the Nikko Niko Fiesta, a national soccer competition for the intellectually handicapped, that was held in Edogawa Ward in Tokyo in October.
Hitachi Elevator (China) (HELC)	Elevator and escalator safety education	HELC has been providing education on elevators and escalators around China since fiscal 2008. Specially designed cartoon characters and a simulated elevator are used to help children enjoy this learning experience. In fiscal 2011, HELC went to Guangzhou's Guangzhong Road Primary School to teach around 600 children about escalators and elevators.



Masahisa Kogure, Director of Table for Two International, giving a lecture (Hitachi Group)





Elevator and escalator safety education (HELC)

# **Hitachi's Foundations**

Hitachi's six foundations worldwide operate in a wide range of areas, including supporting family education, promoting science and technology research, inviting Southeast Asian university faculty members to Japan, helping with environmental conservation, supporting the sound development of young people, and promoting good corporate citizenship in the United States.

### **Hitachi's Foundations**

The Odaira Memorial Hitachi Education Foundation

- The Hitachi Environment Foundation
- The Kurata Memorial Hitachi Science and Technology Foundation
- The Hitachi Mirai Foundation
- The Hitachi Scholarship Foundation
- The Hitachi Foundation (U.S.)

WEB The Foundation in Hitachi Group http://www.hitachi-zaidan.org/global/index.html

## **Disaster-related Symposium**

In January 2012, the Odaira Memorial Hitachi Education Foundation held the Household Education Symposium in Hitachi at the Hitachi Education Hall in conjunction with the Hitachi City Board of Education. The symposium is usually held every fall in Tokyo. However, because of the Great East Japan Earthquake, the event was held in Hitachi City on the theme of "Small children, big lives: Helping children learn from the experience of a major disaster." Around 120 attended, including parents and others involved in childcare and child education.

The symposium impressed one participant about the importance of the links between communities and government as well as communication across the whole community. Another person observed that even though human relations could sometimes be difficult, it would be good if parents and children could "grow up together" as a part of a community.

049 Environmental Report

085 Social Report

- 086 Message
- 087 Respect for Human Rights090 Supply Chain Management095 Diversity Management

102 Public Policy Initiatives

- 115 Employee Health and Safety
  - 118 Global Human Capital Development
  - 121 Social Contribution Activities

105 Quality Assurance and Customer Satisfaction

112 Communication with Shareholders and Investors



Symposium lecture

# **Support for Volunteering**

We support employees who volunteer in three ways: with information, time off, and funding support. For information, we publish information about volunteer activities at seminars and on our intranet. For time off, we provide employees with special annual paid leave on top of their regular holidays which they can use for volunteering or for other forms of self-fulfillment. For funding support, we operate The Growing Tree, a volunteer program that provides financial assistance to non-profit organizations that Hitachi employees are involved with or support as volunteers. In fiscal 2011, assistance of around 2.5 million yen was given in nine cases, including for recovery following the Great East Japan Earthquake, environmental and welfare education for children, and training volunteers.

WEB The Growing Tree http://www.hitachi.com/csr/sc/volunteer/tree/

## **Hitachi Volunteer Seminars**

These hands-on seminars are held every year to deepen employees' understanding of volunteering and to provide them with an opportunity to participate. In fiscal 2011, following the Great East Japan Earthquake in March, we held four seminars for volunteers operating in disaster areas—attended by 150—on the importance of mental health care, making cloth toys to send to children, and preparatory work at the offices of NPOs who are giving support.



A Hitachi Volunteer Seminar

### **Great East Japan Earthquake Recovery**

Hitachi Group companies in and outside Japan have provided support worth about 1 billion yen, including donations of flat-panel TVs, dry cell batteries, and Disaster Victim Support Systems for local municipalities, to aid victims of the disaster and to assist with recovery. We have also opened up company housing in the Tokyo area to disaster victims. We will continue to extend rapid support to help those in disaster areas.

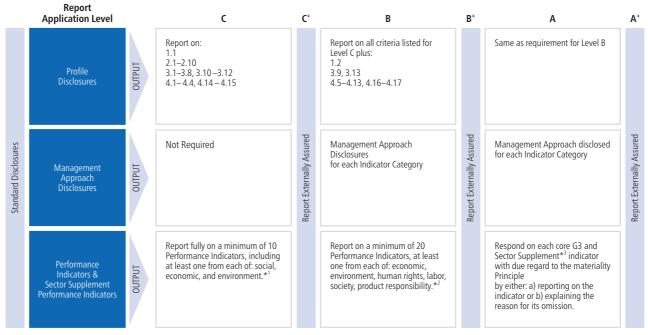
## Support for Disaster Recovery outside Japan

Floods struck the central area and elsewhere in Thailand at the beginning of October 2011, affecting the whole country. The Hitachi Group provided the equivalent of 30 million yen for flood victim relief and for rebuilding.

We also provided the equivalent of 10 million yen following the earthquake that occurred in eastern Turkey in October 2011, as well as 1.37 million pesos following the typhoon that struck the southern Philippines in December 2011.

## **Comparative Table with GRI Guidelines**

In formulating the *Hitachi Group Sustainability Report 2012*, we used the GRI Application Levels indicating compliance with GRI Sustainability Reporting Guidelines. This provides an objective measure of the extent to which version 3.1 of the guidelines (G3.1) and other GRI Reporting Framework elements have been applied. We evaluated this year's report as achieving Application Level B+ by self-assessment. A comparative table with GRI Guideline indexes is included below.



\*1 Performance Indicators may be selected from any finalized Sector Supplement, but 7 of the 10 must be from the original GRI Guidelines \*2 Performance Indicators may be selected from any finalized Sector Supplement, but 14 of the 20 must be from the original GRI Guidelines

\*3 Sector supplement in final version

Item	Index	Items Disclosed	Related Pages in This Report and Other References
1. Strategy	and Analysis		
1.1	Statement from the most senior decision-maker of the organization (e.g.,	Top Commitment	pp. 007–008
	CEO, chair, or equivalent senior position) about the relevance of sustainability to the organization and its strategy	Message from the Chief Environmental Strategy Officer	p. 050
1.2	Description of key impacts, risks, and opportunities	Hitachi Management Strategies and CSR	pp. 009–012
		FY 2011 Results and FY 2012 Plans	pp. 028–029
		Corporate Environmental Management Strategies and Initiatives	pp. 053–059
		Hitachi Group Fiscal 2011 Environmental Action Plan: Targets and Results	p. 057
2. Organiza	tional Profile	-	
2.1	Name of the organization	Hitachi Group Profile	pp. 005–006
2.2	Primary brands, products, and/or services	Hitachi Group Profile	pp. 005–006
2.3	Operational structure of the organization, including main divisions, operating companies, subsidiaries, and joint ventures	Annual Securities Report	Hitachi, Ltd. website
2.4	Location of organization's headquarters	Hitachi Group Profile	pp. 005–006
2.5	Number of countries where the organization operates, and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report	Hitachi Group Profile	pp. 005–006
2.6	Nature of ownership and legal form	Annual Securities Report	Hitachi, Ltd. website
2.7	Markets served (including geographic breakdown, sectors served, and types of customers/beneficiaries)	Annual Securities Report	Hitachi, Ltd. website

2.8	Scale of the reporting organization, including:		
	Number of employees	Hitachi Group Profile	рр. 005–006
	Number of operations	Hitachi Group Profile	рр. 005–006
	Net sales (for private sector organizations) or net revenues (for public sector organizations)	Annual Securities Report	Hitachi, Ltd. website
	Total capitalization broken down in terms of debt and equity (for private sector organizations)	Annual Securities Report	Hitachi, Ltd. website
	Quantity of products or services provided	Annual Securities Report	Hitachi, Ltd. website
2.9	Significant changes during the reporting period regarding size, structure, or ow	nership including:	
	The location of, or changes in operations, including facility openings, closings, and expansions	Annual Securities Report	Hitachi, Ltd. website
	Changes in the share capital structure and other capital formation, maintenance, and alteration operations (for private sector organizations)	Annual Securities Report	Hitachi, Ltd. website
2.10	Awards received in the reporting period	Results of External SRI Assessments in Fiscal 2011	pp. 113–114
		External Environment Awards	Hitachi, Ltd. website: Environmental Activities
3. Report	Parameters		
Report Pro	file		
3.1	Reporting period (e.g., fiscal/calendar year) for information provided	Sustainability Report Editorial Policy	рр. 003–004
3.2	Date of most recent previous report (if any)	Sustainability Report Editorial Policy	рр. 003–004
3.3	Reporting cycle (annual, biennial, etc)	Sustainability Report Editorial Policy	pp. 003–004
3.4	Contact point for questions regarding the report or its contents	Contact information	p. 147
Report Sco	pe and Boundary		
3.5	Process for defining report content, including:		
	Determining materiality     Prioritizing topics within the report     Identifying stakeholders the organization expects to use the report	Material Issues for Hitachi	p. 012
		Results of External SRI Assessments in Fiscal 2011	pp. 113–114
3.6	Boundary of the report (e.g., countries, divisions, subsidiaries, leased facilities, joint ventures, suppliers). See GRI Boundary Protocol for further guidance	Sustainability Report Editorial Policy	pp. 003–004
3.7	State any specific limitations on the scope or boundary of the report	Sustainability Report Editorial Policy	pp. 003–004
3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations, and other entities that can significantly affect comparability from period to period and/or between organizations	Hitachi Group Profile	pp. 005–006
3.9	Data measurement techniques and the bases of calculations, including	Bases of calculations are described if necessary	_
	assumptions and techniques underlying estimations applied to the compilation of the Indicators and other information in the report	Calculation Methods for Environmental Data	Hitachi, Ltd. website: Environmental Activities
3.10	Explanation of the effect of any re-statements of information provided in earlier reports, and the reasons for such re-statement (e.g., mergers/ acquisitions, change of base years/periods, nature of business, measurement methods)	Explanation is given if necessary to complement data descriptions	-
3.11	Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report	None	-
3.12	Table identifying the location of the Standard Disclosures in the report	Comparative Table with GRI Guidelines	pp. 129–138
Assurance			
3.13	Policy and current practice with regard to seeking external assurance for the report. If not included in the assurance report accompanying the sustainability report, explain the scope and basis of any external assurance provided. Also explain the relationship between the reporting organization and the assurance provider(s)	Independent Assurance	pp. 144–146
4. Governa	ance, Commitments, and Engagement		
Governanc	e		
4.1	Governance structure of the organization, including committees under the highest governance body responsible for specific tasks, such as setting strategy or organizational oversight	Strengthening Governance	p. 023
4.2	Indicate whether the Chair of the highest governance body is also an executive officer (and, if so, their function within the organization's management and the reasons for this arrangement)	Strengthening Governance	p. 023
4.3	For organizations that have a unitary board structure, state the number and gender of members of the highest governance body that are independent and/or non-executive members	Strengthening Governance	p. 023
		1	1

			1
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body	Compliance Reporting System	p. 034
		Communication with Shareholders and Investors	pp. 112–114
4.5	Linkage between compensation for members of the highest governance body, senior managers, and executives (including departure arrangements), and the organization's performance (including social and environmental performance)	Strengthening Governance	p. 023
4.6	Processes in place for the highest governance body to ensure conflicts of	Strengthening Governance	p. 023
	interest are avoided.	Formulating and Ensuring Awareness of the Hitachi Group Codes of Conduct	p. 033
4.7	Process for determining the composition, qualifications, and expertise of the members of the highest governance body and its committees, including any consideration of gender and other indicators of diversity.	Strengthening Governance	p. 023
4.8	Internally developed statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and	Hitachi Management Strategies and CSR	рр. 009–012
	the status of their implementation	FY 2011 Results and FY 2012 Plans	рр. 028–029
		Formulating and Ensuring Awareness of the Hitachi Group Codes of Conduct	p. 033
		Corporate Environmental Management Strategies and Initiatives	pp. 053–059
		Hitachi Group Fiscal 2011 Environmental Action Plan: Targets and Results	p. 057
4.9	Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance, including relevant risks and opportunities, and adherence or compliance with internationally agreed standards, codes of conduct, and principles	Initiatives That We Participate in	p. 003
		Hitachi Management Strategies and CSR	pp. 009–012
		Strengthening Governance	p. 023
		Supply Chain Management	рр. 090–094
		Respect for Human Rights	рр. 087–089
		Corporate Environmental Management Strategies and Initiatives	pp. 053–059
4.10	Processes for evaluating the highest governance body's own performance, particularly with respect to economic, environmental, and social performance	Strengthening Governance	p. 023
Commitmer	ts to External Initiatives	1	1
4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organization	Reinforcing the Risk Management System	p. 030
		Business Continuity Plans (BCPs)	pp. 030–032
		Managing Environmental Risk	p. 075
4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or	Initiatives That We Participate in	p. 003
	endorses	Participating in the Development of International Standards	p. 067
4.13	Memberships in associations (such as industry associations) and/or national/in	ternational advocacy organizations in which the orga	anization:
	Has positions in governance bodies	None	-
	Participates in projects or committees	International Standardization Activities	p. 044
		Participating in the Development of International Standards	p. 067
	Provides substantive funding beyond routine membership dues	None	-
	Views membership as strategic	None	-
Stakeholder	Engagement		1
4.14	List of stakeholder groups engaged by the organization	None	-
4.15	Basis for identification and selection of stakeholders with whom to engage	None	-
4.16	Approaches to stakeholder engagement, including frequency of engagement by type and by stakeholder group	Environmental Communication	pp. 083–084
	by type and by statentitider group	Public Policy Initiatives	pp. 102–104
4.17	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting	Material Issues for Hitachi	p. 012

5. Management Approach and Performance Indicators

Item Performance Index: Core (C) / Add (A)

Economic

Disclosure	on Management Approach		
	Economic Performance	Financial Results for the First Quarter of the Year Ended March 31, 2012	Hitachi, Ltd. website
	Market Presence	Annual Securities Report	Hitachi, Ltd. website
	Indirect Economic Impacts	FY 2011 Breakdown of Funding for Social Contribution Activities	p. 121
		Environmental Load Data Generated through Business Operations (FY 2011)	р. 076
	Goals and Performance	Financial Results for the Year Ended March 31, 2012	Hitachi, Ltd. website
	Policy	2012 Mid-Term Management Plan	pp. 010–011
	Additional Contextual Information	Hitachi Group Sustainability Report 2012	
Economic	Performance Indicators		
<b>C</b> EC1	Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community	Hitachi Group Profile	pp. 005–006
ECT	operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments	FY 2011 Breakdown of Funding for Social Contribution Activities	p. 121
		Environmental Accounting	pp. 082–083
<b>C</b> EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change	Corporate Environmental Management Strategies and Initiatives	pp. 053–059
<b>c</b> EC3	Coverage of the organization's defined benefit plan obligations	None	-
<b>C</b> EC4	Significant financial assistance received from government	None	-
Market Pre	esence		
<b>A</b> EC5	Range of ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation	None	-
<b>C</b> EC6	Policy, practices, and proportion of spending on locally-based suppliers at significant locations of operation	Sharing Procurement Policies	pp. 090–091
	significant locations of operation	Building Global Partnerships	p. 091
		Sharing CSR Awareness	pp. 091–092
		Green Procurement	pp. 092–093
		Response to Conflict Minerals Issue	pp. 093–094
<b>C</b> EC7	Procedures for local hiring and proportion of senior management hired from the local community at locations of significant operation	None	-
Indirect Ec	onomic Impacts		
<b>C</b> EC8	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement	Social Contribution Activities	pp. 121–128
<b>A</b> EC9	Understanding and describing significant indirect economic impacts, including the extent of impacts	Environmental Accounting	pp. 082–083

licelocure	on Management Approach		
isciosure	on Management Approach		0.00 0.07
	Materials	Environmentally Conscious Products and Services	pp. 060–067
		Environmental Load Data Generated through Business Operations (FY 2011)	p. 076
	Energy	Environmentally Conscious Products and Services	рр. 060–067
		Promoting Global Warming Countermeasures	рр. 069–071
		Environmental Load Data Generated through Business Operations (FY 2011)	p. 076
	Water	Water Conservation	рр. 073–074
		Environmental Load Data Generated through Business Operations (FY 2011)	p. 076
	Biodiversity	Preserving Ecosystems	pp. 058–059
	Emissions, Effluents, and Waste	Reducing Waste	pp. 071–073
		Water Conservation	pp. 073–074
		Chemical Substance Management	рр. 074–075
		Environmental Load Data Generated through Business Operations (FY 2011)	p. 076
	Products and Services	Environmentally Conscious Products and Services	pp. 060–067
	Compliance	Managing Environmental Risk	p. 075
	Transport	Promoting Global Warming Countermeasures	pp. 069–071
	Overall	Environmental Management Framework	рр. 077–080
	Goal and Performance	Hitachi Group Fiscal 2011 Environmental Action Plan: Targets and Results	p. 057
	Policy	Hitachi Action Guidelines for Environmental Conservation	p. 056
	Organizational Responsibility	Environmental Management Framework	pp. 077–080
	Training and Awareness	Environmental Education	p. 081
	Monitoring and Follow-up	Building Environmental Management Systems	p. 078
	Additional Contextual Information	Hitachi Group Sustainability Report 2012	
laterials		1	1
N1	Materials used by weight or volume	Environmental Load Data Generated through Business Operations (FY 2011)	p. 076
N2	Percentage of materials used that are recycled input materials	None	-
nergy			
N3	Direct energy consumption by primary energy source	Environmental Load Data Generated through Business Operations (FY 2011)	p. 076
N4	Indirect energy consumption by primary source	Environmental Load Data Generated through Business Operations (FY 2011)	p. 076
N5	Energy saved due to conservation and efficiency improvements	Promoting Global Warming Countermeasures	pp. 069–071
N6	Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these	Environmental Accounting	p. 082
	initiatives	Environmentally Conscious Products and Services	pp. 060–067
N7	Initiatives to reduce indirect energy consumption and reductions achieved	Long-Term Plan Environmental Vision 2025	pp. 053–054
Vater			
N8	Total water withdrawal by source	Environmental Load Data Generated through Business Operations (FY 2011)	p. 076
		Water Conservation	рр. 073–074
<b>N</b> 9	Water sources significantly affected by withdrawal of water	None	-
<b>N</b> 10	Percentage and total volume of water recycled and reused	Environmental Load Data Generated through Business Operations (FY 2011)	p. 076
		Water Conservation	pp. 073–074

Biodiversity			
,	lection and the offend sum of leased monaged in explications	None	
<b>C</b> EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	None	-
C	Description of significant impacts of activities, products, and services on	Preserving Ecosystems	pp. 058–059
EN12	biodiversity in protected areas and areas of high biodiversity value outside protected areas	Social Contribution Activities: The Environment	pp. 124–126
<b>a</b> EN13	Habitats protected or restored	Preserving Ecosystems	рр. 058–059
<b>a</b> EN14	Strategies, current actions, and future plans for managing impacts on biodiversity	Preserving Ecosystems	pp. 058–059
<b>A</b> EN15	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk	None	-
Emissions, E	I ffluents, and Waste		
<b>C</b> EN16	Total direct and indirect greenhouse gas emissions by weight	Environmental Load Data Generated through Business Operations (FY 2011)	p. 076
		Promoting Global Warming Countermeasures	pp. 069–071
<b>C</b> EN17	Other relevant indirect greenhouse gas emissions by weight	Environmental Load Data Generated through Business Operations (FY 2011)	p. 076
		Promoting Global Warming Countermeasures	pp. 069–071
<b>C</b> EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved	Environmental Load Data Generated through Business Operations (FY 2011)	p. 076
		Promoting Global Warming Countermeasures	pp. 069–071
<b>C</b> EN19	Emissions of ozone-depleting substances by weight	Environmental Load Data Generated through Business Operations (FY 2011)	p. 076
<b>C</b> EN20	NO, SO, and other significant air emissions by type and weight	Environmental Load Data Generated through Business Operations (FY 2011)	p. 076
		Chemical Substance Management	рр. 074–075
<b>C</b> EN21	Total water discharge by quality and destination	Environmental Load Data Generated through Business Operations (FY 2011)	p. 076
		Water Conservation	рр. 073–074
<b>C</b> EN22	Total weight of waste by type and disposal method	Environmental Load Data Generated through Business Operations (FY 2011)	p. 076
		Reducing Waste	pp. 071–073
<b>C</b> EN23	Total number and volume of significant spills	Managing Environmental Risk	p. 075
<b>A</b> EN24	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally	None	-
<b>A</b> EN25	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff	None	-
Products and	d Services		
<b>C</b> EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation	Increasing the Ratio of Eco-Products	pp. 060–064
<b>C</b> EN27	Percentage of products sold and their packaging materials that are reclaimed by category	Status of Product Packaging Recycling	Hitachi, Ltd. website, Environmental Activities
Compliance			
<b>C</b> EN28	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	Managing Environmental Risk	p. 075
Transport		1	1
A EN29	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce	Reducing Transportation Energy	pp. 070–071
Overall		1	1
<b>A</b> EN30	Total environmental protection expenditures and investments by type	Environmental Accounting	pp. 082–083

Labor Practices and Decent Work

Labor Prac	tices and Decent Work		
Disclosure of	on Management Approach		
	Employment	Global Human Capital Management Strategy	р. 118
	Labor/Management Relations	Formulating and Ensuring Awareness of the Hitachi Group Codes of Conduct	p. 033
	Occupational Health and Safety	Employee Health and Safety	pp. 115–117
	Training and Education	Diversity Development Project	pp. 095–099
	Diversity and Equal Opportunities	Diversity Management	pp. 095–101
	Equal Remuneration for Women and Men	None	-
	Goals and Performance	Major Results Data	pp. 142–143
	Policy	CSR Policy of the Hitachi Group	р. 027
	Organizational Responsibility	Diversity Development Project	pp. 095–099
	Training and Awareness	Diversity Development Project	pp. 095–099
	Monitoring and Follow-up	Diversity Development Project	pp. 095–099
	Additional Contextual Information	Hitachi Group Sustainability Report 2012	
Employmer	it		
<b>C</b> LA1	Total workforce by employment type, employment contract, and region, broken down by gender	Hitachi Group Profile	pp. 005–006
<b>C</b> LA2	Total number and rate of new employee hires and employee turnover by age group, gender, and region	None	-
<b>A</b> LA3	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by significant locations of operations	None	-
<b>C</b> LA15	Return to work and retention rates after parental leave, by gender	None	
Labor/Man	agement Relations	·	
<b>C</b> LA4	Percentage of employees covered by collective bargaining agreements	None	-
<b>C</b> LA5	Minimum notice period(s) regarding operational changes, including whether it is specified in collective agreements	None	-
Occupation	al Health and Safety	·	
<b>A</b> LA6	Percentage of total workforce represented in formal joint management– worker health and safety committees that help monitor and advise on occupational health and safety programs	None	-
<b>C</b> LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender	Trends in the Occupational Accident Rate	p. 115
C	Education, training, counseling, prevention, and risk-control programs in	Business Continuity Plans (BCPs)	pp. 030–032
LA8	place to assist workforce members, their families, or community members regarding serious diseases	Employee Health and Safety	pp. 115–117
<b>A</b> LA9	Health and safety topics covered in formal agreements with trade unions	None	-
Training an	d Education		
<b>c</b> LA10	Average hours of training per year per employee by gender, and by employee category	None	-
<b>A</b> LA11	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	Global Human Capital Development	pp. 118–120
<b>A</b> LA12	Percentage of employees receiving regular performance and career development reviews, by gender	None	-
Diversity ar	d Equal Opportunity		
<b>c</b> LA13	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group	Diversity Management	pp. 095–101
	membership, and other indicators of diversity	Global Human Capital Development	pp. 118–120
Equal Remu	uneration for Women and Men	1	

**C** LA14 Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation None \_ Human Rights

Disclosure on Management Approach

Disclosure or	Management Approach		
	Investment and Procurement Practices	Guidelines for Procurement Activities	pp. 090–091
		Hitachi Group Supply-Chain CSR Deployment Guidebook	pp. 091–092
		Hitachi Group Codes of Conduct: Chapter 1.3 Procurement Activities	p. 033
	Non-Discrimination	Hitachi Group Codes of Conduct: Chapter 4.2 Eliminating Discrimination	p. 033
	Freedom of Association and Collective Bargaining	Hitachi Group Codes of Conduct: Chapter 4.4 Respect of Basic Rights at Work	p. 033
	Child Labor	Hitachi Group Codes of Conduct: Chapter 4.4 Respect of Basic Rights at Work	p. 033
	Prevention of Forced and Compulsory Labor	Hitachi Group Codes of Conduct: Chapter 4.4 Respect of Basic Rights at Work	p. 033
	Security Practices	Hitachi Group Codes of Conduct: Chapter 4.4 Respect of Basic Rights at Work	p. 033
	Indigenous Rights	Hitachi Group Codes of Conduct: Chapter 4.4 Respect of Basic Rights at Work	p. 033
	Assessment	Reinforcing the Risk Management System	p. 030
	Remediation	Reinforcing the Risk Management System	p. 030
	Goals and Performance	FY 2011 Results and FY 2012 Plans: 4. Corporate Ethics and Human Rights	p. 028
	Policy	Hitachi Group Codes of Conduct: Chapter 4 Respect of Human Rights	p. 033
	Organizational Risk Assessment	Reinforcing the Risk Management System	p. 030
	Impact Assessment	Reinforcing the Risk Management System	p. 030
	Organizational Responsibility	Framework for Promoting Respect for Human Rights	pp. 087–088
	Training and Awareness	Raising Awareness of Human Rights; Applying Human Rights Worldwide	p. 088
	Monitoring, Follow-up and Remediation	Applying Human Rights Worldwide	p. 088
	Additional Contextual Information	Hitachi Group Sustainability Report 2012	
Investment a	nd Procurement Practices		
<b>C</b> HR1	Percentage and total number of significant investment agreements and contracts that include clauses incorporating human rights concerns, or that have undergone human rights screening	None	-
C HR2	Percentage of significant suppliers, contractors, and other business partners that have undergone human rights screening, and actions taken	Sharing Procurement Policies; Sharing CSR Awareness	pp. 090–091
C HR3	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained	Raising Awareness of Human Rights; Applying Human Rights Worldwide	p. 088
Non-Discrimi	nation		
C HR4	Total number of incidents of discrimination and corrective actions taken	None	-
Freedom of A	Association and Collective Bargaining		
C HR5	Operations and significant suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and actions taken to support these rights	None	-
Child Labor	1	1	1
C HR6	Operations and significant suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor	Formulating and Ensuring Awareness of the Hitachi Group Codes of Conduct	p. 033
Forced and C	ompulsory Labor		
C HR7	Operations and significant suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor	Formulating and Ensuring Awareness of the Hitachi Group Codes of Conduct	p. 033
Security Prac	lices		
	accs		

A HR8	Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations	Raising Awareness of Human Rights	p. 088
Indigenous	Rights		
<b>A</b> HR9	Total number of incidents of violations involving rights of indigenous people and actions taken	None	-
Assessment			
<b>C</b> HR10	Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments	None	-
Remediatio	n		
<b>C</b> HR11	Number of grievances related to human rights filed, addressed and resolved through formal grievance mechanisms	None	-
Society			
Disclosure c	n Management Approach		
	Local Communities	Philosophy and Policy Hitachi Group Codes of Conduct: Chapter 3.2 Contribution to Local Communities; 3.6 Observance of Laws and Regulations and Respect of the Culture and Customs of Each Nation and Region	p. 121 p. 033
	Corruption	Compliance	рр. 033–037
	Public Policy	Public Policy Initiatives	pp. 102–104
	Anti-Competitive Behavior	Hitachi Group Codes of Conduct, Chapter 1.2 Sales Activities	p. 033
	Compliance	Formulating and Ensuring Awareness of the Hitachi Group Codes of Conduct	p. 033
	Goals and Performance	FY 2011 Results and FY 2012 Plans: 4. Corporate Ethics and Human Rights	p. 028
	Policy	CSR Policy of the Hitachi Group	p. 027
	Organizational Responsibility	CSR Management Structure	p. 026
	Training and Awareness	Implementing Corporate Ethics Month	pp. 033–034
	Additional Contextual Information	Hitachi Group Sustainability Report 2012	
_ocal Comm	unities		•
<b>c</b> 501	Percentage of operations with implemented local community engagement, impact assessments, and development programs	Philosophy and Policy	p. 121
<b>c</b> 509	Operations with significant potential or actual negative impacts on local communities	Managing Environmental Risk	p. 075
<b>C</b> 5010	Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities	Environmentally Conscious Production	pp. 068–076
Corruption			
<b>c</b> 502	Percentage and total number of business units analyzed for risks related to corruption	Reinforcing the Risk Management System	p. 030
<b>C</b> 503	Percentage of employees trained in organization's anti-corruption policies and procedures	Compliance	pp. 033–037
<b>c</b> 504	Actions taken in response to incidents of corruption	Preventing Violation of the Antimonopoly Law	pp. 034–035
Public Policy	/		
<b>C</b> 505	Public policy positions and participation in public policy development and lobbying	Public Policy Initiatives	pp. 102–104
<b>a</b> 506	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country	None	-
Anti-Compe	titive Behavior		
<b>c</b> 507	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes	None	-
Compliance			

**c** 508 Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations

Product Responsibility
Disclosure on Management App

Disclosure	on Management Approach		
	Customer Health and Safety	Quality Assurance and Customer Satisfaction	pp. 105–111
	Product and Service Labeling	Increasing the Ratio of Eco-Products	pp. 060–064
	Marketing Communications	Customer Satisfaction	pp. 107–109
	Customer Privacy	Protecting Personal Information and Information Security Initiative	pp. 035–037
	Compliance	Compliance	pp. 033–037
	Goals and Performance	FY 2011 Results and FY 2012 Plans: 2. Contribution to Society through Our Business	p. 028
	Policy	Customer Satisfaction Management Guidelines	p. 107
	Organizational Responsibility	Customer Satisfaction	pp. 107–109
	Training and Awareness	Customer Satisfaction	pp. 107–109
	Monitoring and Follow-up	Customer Satisfaction	pp. 107–109
	Additional Contextual Information	Hitachi Group Sustainability Report 2012	
Customer	Health and Safety		
<b>C</b> PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures	Quality Assurance Activities	p. 105
<b>A</b> PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes	Handling Product Accidents	p. 106
Product ar	nd Service Labeling	1	1
<b>C</b> PR3	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements	Increasing the Ratio of Eco-Products	pp. 060–064
<b>A</b> PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes	None	-
<b>A</b> PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction	Customer Satisfaction	pp. 107–109
Marketing	Communications	-	
<b>C</b> PR6	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship	Hitachi Group Codes of Conduct: Chapter 1.2 Sales Activities	p. 033
<b>A</b> PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes	None	-
Customer	Privacy	,	1
<b>A</b> PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data	None	-
Compliand	ce	,	
<b>C</b> PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services	None	-

# Comparative Table with ISO 26000 Core Subjects

Hitachi's engagements are shown together with the corresponding seven core subjects of ISO 26000 (*Guidance on Social Responsibility*).

Core Subjects	Issues	Hitachi's Engagements	Related Pages ir This Report
Organizational Governance	Organizational Governance	Corporate Governance     CSR Management     Brand Management     Public Policy Initiatives	pp. 023–025 pp. 026–029 pp. 045–048 pp. 102–104
Human Rights	<ol> <li>Due diligence*1</li> <li>Human rights risk situations</li> <li>Avoidance of complicity</li> <li>Resolving grievances</li> <li>Discrimination and vulnerable groups</li> <li>Civil and political rights</li> <li>Economic, social and cultural rights</li> <li>Fundamental principles and rights at work</li> </ol>	• Respect for Human Rights	pp. 087–089
Labor Practices	<ol> <li>Employment and employment relationships</li> <li>Conditions of work and social protection</li> <li>Social dialogue</li> <li>Health and safety at work</li> <li>Human development and training in the workplace</li> </ol>	Diversity Management     Global Human Capital Development     Employee Health and Safety	pp. 095–101 pp. 118–120 pp. 115–117
The Environment	<ol> <li>Prevention of pollution</li> <li>Sustainable resource use</li> <li>Climate change mitigation and adaptation</li> <li>Protection of the environment, biodiversity and restoration of natural habitats</li> </ol>	Corporate Environmental Management Strategies and Initiatives     Environmentally Conscious Products and Services     Environmentally Conscious Production Environmental Management Framework and Communication	pp. 053–059 pp. 060–067 pp. 068–076 pp. 077–084
Fair Operating Practices	1. Anti-corruption 2. Responsible political involvement 3. Fair competition 4. Promoting social responsibility in the value chain 5. Respect for property rights	Risk Management     Compliance     Intellectual Property     Supply Chain Management     Preserving Ecosystems	pp. 030–032 pp. 033–037 pp. 043–044 pp. 090–094 pp. 058–059
Consumer Issues	<ol> <li>Fair marketing, factual and unbiased information and fair contractual practices</li> <li>Protecting consumers' health and safety</li> <li>Sustainable consumption</li> <li>Consumer service, support, and complaint and dispute resolution</li> <li>Consumer data protection and privacy</li> <li>Access to essential services</li> <li>Education and awareness</li> </ol>	Quality Assurance and Customer Satisfaction	pp. 105–111
Community Involvement and Development	1. Community involvement     2. Education and culture     3. Employment creation and skills development     4. Technology development and access     5. Wealth and income creation     6. Health     7. Social investment	Social Contribution Activities	pp. 121–128

\*1 Examination of the potential negative effects that an organization's decisions and activities may have on society, the environment, and the economy

# Comparative Table with the UN Global Compact

Items in Hitachi Group Codes of Conduct and Hitachi's engagements are shown together with the corresponding 10 principles of the UN Global Compact.

Principles	Hitachi (	Group Codes of Conduct	Hitachi's Engagements	Related Pages in This Report	Related Pages in This Report
Human Rights	Principle 1	Businesses should support and respect the protection of internationally proclaimed human rights	1.3 Procurement Activities     3.6 Observance of Laws and Regulations and Respect of     the Culture and Customs of Each Nation and Region     4.1 Promoting Respect of Human Rights     4.2 Eliminating Discrimination	Respect for Human Rights     Supply Chain Management	pp. 087–089 pp. 090–094
	Principle 2	Businesses should make sure that they are not complicit in human rights abuses	4.2 Respect of Human Rights in Information Management 4.4 Respect of Basic Rights at Work		
Labor	Principle 3	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining	<ol> <li>1.3 Procurement Activities</li> <li>4.1 Promoting Respect of Human Rights</li> <li>4.2 Eliminating Discrimination</li> <li>4.3 Respect of Human Rights in Information Management</li> <li>4.4 Respect of Basic Rights at Work</li> <li>5.4 Arranging a Work Environment That Draws Out</li> </ol>	Diversity Management     Global Human Capital Development     Employee Health and Safety     Supply Chain Management	pp. 095–101 pp. 118–120 pp. 115–117 pp. 090–094
	Principle 4	Businesses should uphold the eimination of all forms of forced and compulsory labor	Employee Strengths		
	Principle 5	Businesses should uphold the effective abolition of child labor			
	Principle 6	Businesses should uphold the elimination of discrimination in respect of employment and occupation			
Environment	Principle 7	Businesses should support a precautionary approach to environmental challenges	2.1 Promoting Environmental Management 2.2 Environmentally Conscious Business Activities and Environmental Management 2.3 Communication with Stakeholders	Corporate Environmental Management Strategies and Initiatives     Environmentally Conscious Products and Services	pp. 053–059 pp. 060–067
	Principle 8	Businesses should undertake initiatives to promote greater environmental responsibility		Environmentally Conscious Production     Environmental Management     Framework and Communication	pp. 068–076 pp. 077–084
	Principle 9	Businesses should encourage the development and diffusion of environmentally friendly technologies			
Anti- Corruption	Principle 10	Businesses should work against corruption in all its forms, including extortion and bribery	<ol> <li>Relations with Politics and Government Administration</li> <li>Regarding Gifts, Business Entertainment, Etc.</li> </ol>	Compliance	pp. 033–037

# Policy, Vision, and Guidelines

Policy, vision, and guidelines reported in *Hitachi Group Sustainability Report 2012* are listed below.

	Category	Policy, Vision, and Guidelines	Related Pages in This Report
Hitachi Management Strategie	s and CSR	Corporate Credo	р. 009
		Hitachi Group Vision	p. 009
		Hitachi Group Codes of Conduct	p. 009
		2012 Mid-Term Management Plan	pp. 010–011
		CSR Policy of the Hitachi Group	p. 027
Management Report	Risk Management	Guidelines for Pandemic Influenza Preparedness	p. 031
	Compliance	Hitachi Group Codes of Conduct	p. 033
		Basic Approach to Information Security Governance	р. 036
		Personal Information Protection Policy	p. 035
		Three Principles for Preventing Leakage of Confidential Information	p. 036
	Brand Management	Hitachi Brand Strategy	p. 045
Environmental Report	Environmental Management Strategies and Initiatives	The Hitachi Environmental Vision	p. 053
	Initiatives	Long-Term Plan Environmental Vision 2025	р. 053
		Hitachi Action Guidelines for Environmental Conservation	p. 056
Social Report	Quality Assurance and Customer Satisfaction	Customer Satisfaction Management Guidelines	p. 107
	Communication with Shareholders and Investors	Disclosure Policy	p. 112
		Fundamental Policy for Prevention of Takeovers	p. 114
	Social Contribution Activities	Social Contribution Philosophy and Policy	p. 121
	Supply Chain Management	Guidelines for Procurement Activities	pp. 090–091
		Hitachi Group Supply-Chain CSR Deployment Guidebook	pp. 091–092
		Green Procurement Guidelines	pp. 092–093

## **Major Results Data**

Major results data reported in Hitachi Group Sustainability Report 2012 are listed below.

### Management

	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Related Pages in This Report
Innovation Management						
R&D Efficiency (ROI) (%)	0.82	0.31	0.37	1.1	1.0	p. 038
R&D Expenditures to Revenues (%)	3.8	4.2	4.2	4.3	4.2	p. 038
Intellectual Property						
Patent Application Ratios outside Japan (%)	45	47	47	51	55	p. 043

Scope of data Hitachi, Ltd. and consolidated subsidiaries (including modified entities to which the equity method of consolidated reporting applies)

No. of companies: FY 2007: 911; FY 2008: 944; FY 2009: 901; FY 2010: 914; FY 2011: 939

## Environment

	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Related Pages in This Report
Environmental Management Strategies and Initiatives						
Contributions to $CO_2$ Emission Reduction (millions of tonnes)	-	-	_	15.51	18.09	p. 054
Environmentally Conscious Products and Services						
No. of Eco-Product Models (models)	5,741	6,954	8,387	9,456	10,476	p. 060
Environmentally Conscious Production						
CO <sub>2</sub> Emissions (kt-CO <sub>2</sub> )	4,511	4,312	3,879	4,324	3,121	p. 069
$\rm CO_2$ Emissions from Transportation in Japan (kt-CO <sub>2</sub> )	174	155	128	125	138	p. 071
Waste Generation (kt)	760	737	608	738	701	p. 072
Water Use outside Japan (millions of m <sup>3</sup> )	14.26	13.61	12.90	16.40	8.91	р. 073
VOC atmospheric Emissions (t)	6,072	4,549	3,737	3,653	4,285	p. 075

Scope of data

Scope of data For environmental load data generated from products Hitachi, Ltd. and consolidated subsidiaries (including modified entities to which the equity method of consolidated reporting applies) No. of companies: FY 2007: 911; FY 2008: 944; FY 2009: 901; FY 2010: 914; FY 2011: 940 For environmental load data generated through business operations Companies that cover 90% of the load (based on Hitachi calculations)

## Social

	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Related Pages in This Report
Social Contribution Activities	· · · ·					
Funding for Social Contribution Activities*1 (millions of yen)	1,472	1,439	1,347	1,605	-	p. 121
Funding for Social Contribution Activities*2 (millions of yen)	-	-	-	-	3,471	p. 121
Supply Chain Management						
Global Procurement Ratio (%)	-	-	-	36	38	p. 090
Diversity Management						
Ratio of Male and Female Employees (Hitachi, Ltd.) (%)	86:14	86:14	85:15	84:16	84:16	p. 097
Ratio of Female Managers (Hitachi, Ltd.) (%)	2.5	2.9	3	3.3	3.4	p. 098
No. of Employees Taking Childcare Leave (Hitachi, Ltd.) (people)	438	459	510	542	533	p. 098
No. of Employees Taking Nursing Care Leave (Hitachi, Ltd.) (people)	20	18	11	10	12	p. 098
No. of Employees Working Shorter Hours (Hitachi, Ltd.) (people)	350	383	288	337	321	p. 099
Employment Ratio of People with Disabilities (%)	2.11	2.06	2.01	2.05	2.00	p. 100
Global Human Capital Development	· · · ·					
No. of Non-Japanese Employees (Hitachi, Ltd.) (people)	179	200	218	230	239	p. 119
Employee Health and Safety*3						
Occupational Accident Rate (Hitachi, Ltd.) (%)	0.05	0.12	0.06	0.07	0.10	p. 115
Occupational Accident Rate (Hitachi Group*4) (%)	0.26	0.22	0.25	0.23	0.17	p. 115

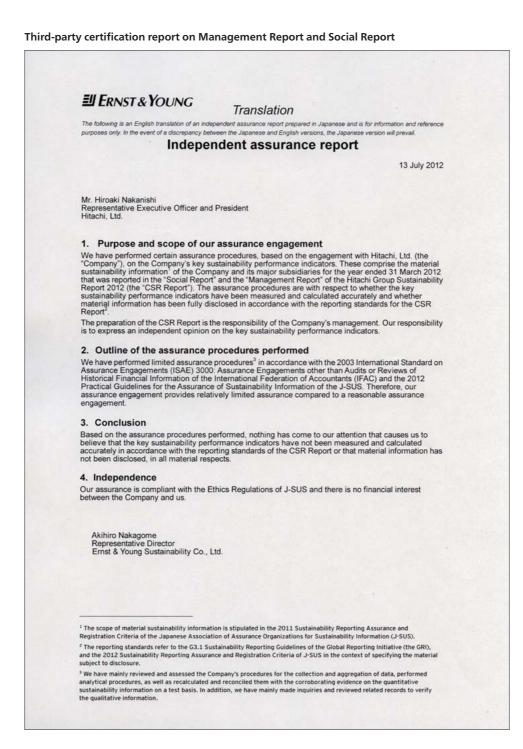
Scope of data \*1 Hitachi, Ltd. and five foundations in Japan \*2 The Hitachi Group and five foundations in Japan \*3 Statistics from January to December 2011 \*4 90 major Hitachi Group companies in Japan excluding Hitachi, Ltd.

# Independent Assurance

To enhance the reliability of data disclosed in the Hitachi Group Sustainability Report 2012, we have received third-party audits and reviews.

### **Management Report / Social Report**

Regarding the Management Report (pp. 021–048) and the Social Report (pp. 085–128) focusing mainly on fiscal 2011, we have received a review by Ernst & Young Sustainability Institute Co., Ltd.



### **Environmental Report**

Regarding the fiscal 2011 results in the Environment Report (pp. 049–084), we have received a review by Bureau Veritas Japan Co., Ltd.\*

Regarding energy, a more detailed verification was conducted to confirm the data. Environmental load data, Eco-Product registration data, and the contribution to CO<sub>2</sub> emission reduction through the use of Hitachi products and services were also subject to review.

The standards, guidelines, and calculation methods used in collecting data are posted on our website.

\*A certification agency providing inspection, auditing, and certification services in areas such as marine and building compliance; health, safety, and the environment; systems; and consumer products.

WEB Calculation methods for environmental load data:

http://www.hitachi.com/environment/activities/third/method.html

### Third-party verification report on Environmental Report

	fication R	y Report 2012			
	neadon n	oport			AN ANA
To: Hitachi, Ltd.					
				System	Bureau Veritas Japan, Co., Ltd n Certification Services Headquarter
verification and review o (the Report), issued und data within the Report and	f its environme er the respons nd to provide a	ental data selected by Hitach ibility of Hitachi. The aim of	hi for inclusion i the verification on objective evi	in the Hita is to con	<ul> <li>hi) to conduct an independent achi Group Sustainability Report 20 sider the accuracy of environmental he aim of the review is to make a</li> </ul>
1. Verification and Rev			1.		
1) Environmental load data	generated throu	gh business operations in FY20 of energy consumption data and		data from	energy use, and conducted a review of t
other environmental data		Cite Ma	had		Mailfastion on Deview Mathadalamy
Data verified or R 90%(*1) of environment generated through busi operations of Hitachi an consolidated companie	tal load data ness id 939 s	Site Vis Hitachi Head Office	ited		Verification or Review Methodology - Review of documentary evidence produced by Hitachi Head Office and the sites visited - Interviews with relevant personnel of
(*1) based on Hitach Environmental load dat the sites visited to Hitac	a reported by	Hitachi Industrial Equipment Narashino Division     Hitachi, Ltd., Infrastructure S Information & Control Systems     Hitachi, Ltd., IT Platform Divi Office	s Division, Omika	y, Works	Hitachi Head Office and the sites visited - Site inspection about data monitoring procedure - Comparison between the reported data
	199	- Hitachi Computer Technolog Ltd.	y & Manufacturin	ng Co.,	and the supporting documentary evidences
based on current best pro limited assurance for the	actice. Bureau V scope of work s n data d a review of the	eritas refers to the International tated herein.	I Standard on As		nal verification of non-financial reporting ngagements (ISAE) 3000 in providing a
based on current best pro- limited assurance for the 2) Eco-Products registration Bureau Veritas conducte Data used for registration	actice. Bureau V scope of work s n data d a review of the Data Review on of two produc	eritas refers to the International tated herein. e following data. red ts		- Review Hitach	Review Methodology rof documentary evidence produced by i Head Office
based on current best pr limited assurance for the 2) Eco-Products registration Bureau Veritas conducte Data used for registratic - The number of models 2009, 2010 and 2011 - The sales ratio of Eco - The share of Eco-Pro	actice. Bureau V scope of work s in data d a review of the Data Review on of two products registered as E Products in FY2 Jucts sales by se	feritas refers to the International tated herein. e following data. red ts co-Products in FY2007, 2008, 2010 and 2011	Site Visited	- Review Hitach - Intervie Head - Compa registr	Review Methodology of documentary evidence produced by i Head Office rws with relevant personnel of Hitachi Office rision between the data used for the ation and the supporting documentary
based on current best pr limited assurance for the 2) Eco-Products registration Bureau Veritas conducte Data used for registration - The number of models 2009, 2010 and 2011 - The sales ratio of Eco- Tro Share of Eco-Pro - The number of models 3) Amount of contribution to	actice. Bureau V scope of work s n data d a review of the Data Review on of two produc a registered as E -Products in FY2 ducts sales by se a registered as E 0 CO <sub>2</sub> emission m	feritas refers to the International tated herein. ed ts co-Products in FY2007, 2008, 2010 and 2011 gement in FY2011 co-Products Select in FY2011 eduction through the use of Hitz	Site Visited Hitachi Head Office	- Review Hitach - Intervie Head - Compa registr evider	Review Methodology of documentary evidence produced by i Head Office rws with relevant personnel of Hitachi Office rision between the data used for the ation and the supporting documentary
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### **Greenhouse Gas Emissions Verification Statement**



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