

Hitachi Kokusai Electric Group CSR Report 2010

# Special Report

For Our Customers' Smiles HiKQ Innovation Activities

# Company Outline (as of March 31, 2010)



Name

Hitachi Kokusai Electric Inc.

#### Headquarters

4-14-1, Sotokanda, Chiyoda-ku, Tokyo 101-8980, Japan

#### Founded

November 17, 1949

#### Capital

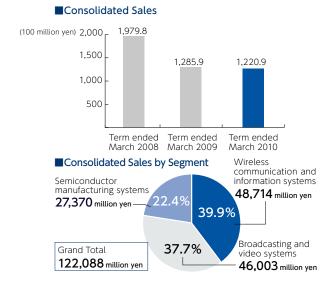
10,058 million yen

#### Sales

122,088 million yen (consolidated)

#### **Employees**

4,970 (consolidated)



# Factories of the Company



#### Toyama Works

Main products: Semiconductor Manufacturing Systems

Located in Yatsuo-machi, Toyama, embraced by the Hida Highlands, this factory has a special-purpose clean room where semiconductor manufacturing equipment for the next-generation processes is developed, designed, and produced to meet the demanding needs of major users worldwide.



#### Hamura Works

Main products: Wireless Communications and Information systems

Located in Hamura, Tokyo, crossed by the nature-rich Tama River, this factory develops, designs, and produces wireless equipment mainly bound for governmental agencies.



#### Koganei Works

Main products: Wireless Communication and Information Systems, Broadcasting and Video Systems

Located in Kodaira, Tokyo, retaining the old image of Musashino, this factory develops, designs, and produces wireless communications and information systems, and broadcasting and video systems. Engineers engaged in the fields of communication, broadcasting, and video work here to create products befitting Hitachi Kokusai Electric.

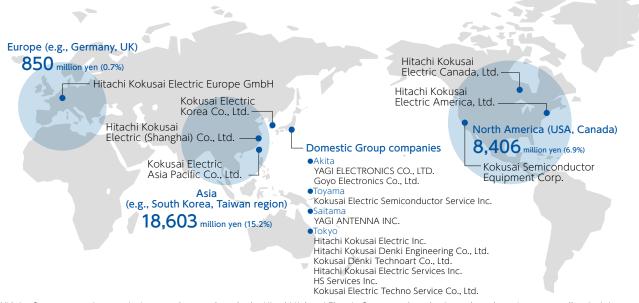


#### Sendai Branch Works

Main products: Wireless Communication and Information Systems, Broadcasting and Video Systems

The Shiroishi River originating in the Zao mountain range flows through Shibata-machi in Miyagi Prefecture on its way toward the Pacific Ocean. This is where we manufacture our wireless communication systems and broadcasting and video systems.

# Business Expansion of the Hitachi Kokusai Electric Group



With its Group companies—ten in Japan and seven abroad—the Hitachi Kokusai Electric Group conducts business throughout Japan, as well as in Asia, North America, Europe, and other parts of the world.

## Main Products

## Wireless Communications and Information Systems



Digital In-car Radio Unit

Radio Packet Communication Module



High-speed Radio Repeater



Securities Information

Disaster-preventive Radio System

# **Broadcasting and Video Systems**

Broadcasting Equipment, Receivers, Monitors, and Image



\*1 Tapeless system···Server system for broadcasting station service ※2 FPU··· Field Pick-up Unit

#### Semiconductor Manufacturing Systems



Semiconductor Manufacturing Equipment



Oxidization and Diffusion <u>CVD</u> Equipment

Thin Film Deposition Equipment for Next-generation Process

PTZ Camera for Outdoor Use





Insulating Film Deposition Equipment

**\*3 CVD···**Chemical Vapor Deposition

Resist Removal Equipment

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## **Editorial Policy**

This report is intended to declare that the Hitachi Kokusai Electric Group considers earning the confidence and meeting the expectations of society through all its business activities as its corporate social responsibility (CSR), and to describe and report how it works to fulfill that responsibility.

At the Group, we wish to make this report an opportunity to communicate, deepen mutual understanding, share our ideas and exchange information with our customers, business partners, colleagues, neighbors, stockholders and many other stakeholders. To that end, we narrow it down to the essential contents and items, thereby striving to make the report more readable and understandable.

#### Scope of this Report

: The main period covered is Fiscal 2009 (from Period April 1, 2009, to March 31, 2010)

Companies: Hitachi Kokusai Electric Inc. (the "Company" herein) and domestic Group companies

Scope of Data: Indicated under each item (Environmental impact and environmental accounting were tabulated based on data from the production sites marked © below.)

- · Hitachi Kokusai Electric Inc. Toyama Works O, Hamura Works O, Koganei Works ©, Sendai Branch Works ©
- YAGI ANTENNA INC. ©
- · YAGI ELECTRONICS CO., LTD.
- Kokusai Electric Semiconductor Service Inc.
- · Hitachi Kokusai Denki Engineering Co., Ltd.
- · Kokusai Denki Technoart Co., Ltd.
- · Goyo Electronics Co., Ltd.
- Hitachi Kokusai Electric Services Inc.
- · HS Services Inc.
- · Kokusai Electric Techno Service Co., Ltd.

\*This report retroactively reflects the re-organization of Group companies in April 2010.

#### **Next Issue**

The next report is planned to be issued in June 2011.

Cover photos: We have combined the photos showing our colleagues working "for our customers' smiles" and photos symbolizing scenes where our group's products are used.

# Toward becoming a social innovator trusted by customers, creating new value in the next era.

Thank you very much for your continued support for the business of your Hitachi Kokusai Electric Group.

We have incorporated the points of our corporate social responsibility into the "Hitachi Kokusai Electric Code of Conduct" and published them as our corporate philosophy. In so doing, we aim to share our ideas on our relationships with society together with our customers, business partners, neighbors, colleagues, and all other stakeholders, thereby proceeding with our business operation while granted your wide-ranging support and cooperation.

With the world economy in recession, the first half of fiscal 2009 saw a continued regression in our performance, but the latter half saw signs of a modest recovery. Under the circumstances, following our corporate philosophy; looking to the future, in order to proceed with manufacturing products that contribute to a safe and affluent society, your group has initiated new reform activities with all group companies functioning as one unit.

To further expand the scope of the conventional kaizen activity, or quality improvement campaign and business process reforms thus far, we have designed a drive where all the officers and colleagues from all the divisions and positions engage in a reform of their tasks under the prerequisite condition of "Customer First". As we intend to create the "quality" of Hitachi Kokusai Electric as a brand, we named this drive "HiKQ Innovation" after HiKE Quality (i.e. Hitachi Kokusai Electric Quality). We started the drive in August 2009 and have proceeded by providing the spaces and opportunities for discussion, using intranet and other tools for sharing information. All the entire group is now involved and working on reform of their jobs, on the basis of customer satisfaction first. In April 2010, we reform the structure of our organization to reinforce our cross-divisional business and adopted a habit of

addressing each other with just the common title "-san" instead of the professional title. In so doing, we worked to reactivate in-house communications both vertically and horizontally. Going forward, we will further reactivate our communications both internally and externally, and will cultivate our corporate culture for conducting everyone's job with customer satisfaction

In the meantime, having witnessed the passing of a decade as Hitachi Kokusai Electric Inc., or at the start of the next decade, we have set up a new mediumterm plan called "HK-AV10" as a set of medium term managerial measures. "HK-AV10" is so named after "AV," which stands for "Advanced Vision" and expresses our intention to achieve an operating profit rate of 10% on the moving "average" despite a changing business environment. We will pursue this plan based on our unflagging resolve, by reinforcing ourselves through the HiKQ innovation activities.

Our new medium-term managerial plan, "HK-AV10" sets our mission as "to be a social innovator trusted by customers and creating new value in the next era" and our goal as to be the top global company in "video and wireless network system solutions" and "eco- and thin film processing solutions." Our specific actions and numerical targets for those purposes will be informed to you and other stakeholders through our periodic reports, electronic disclosures and various other media, thereby clarifying the progress and status of achievement whenever appropriate.

We will also disclose our social contribution activities in an even more open manner than before. These activities are significant in not only leading to reactivated communications with the relevant communities but also in bringing participants and others concerned a broader outlook, as well as a deeper

sensibility and more flexible thought. This will enable them to think of what society will need in the next era, then what to creatively manufacture in the future, and thereby developing while contributing to the creation of a sustainable society. All that will surely lead to the heart of HiKQ.

I hope that this report and our website will be positively used in communications with you and other stakeholders. I kindly request your frank comments and advice.

June 24, 2010

M. Shinomoto

Manabu Shinomoto President and Chief Executive Officer



## Hitachi Kokusai Electric Code of Conduct

Hitachi Kokusai Electric, which respects human rights, observes the spirit as well as the letter of national and international laws and regulations, hereby adopts this Code of Conduct with a view to achieving continued growth and development while contributing to the creation of a sustainable society.

#### **Fundamental Philosophy**

- Manufacture products that contribute to a safe and affluent society.
- Looking to the future, never stop working for continuous improvement.
- Observe fundamentals, do things the right way, and be fair and transparent in all aspects of corporate conduct.

In accordance with the Fundamental Philosophy, Hitachi Kokusai Electric commits to the dissemination of this Code of Conduct with the following Guidelines and Commitments, and to the maintenance of the related internal system.

#### **Guidelines and Commitments**

- 1. Obtain customers' trust and confidence by developing and providing products and services in which the emphasis is on safety, quality and environmental soundness.
- 2. Engage in fair and transparent competition and business activities, comply with laws and be ethical in one's corporate conduct.
- 3. Respect the diversity, character and individuality of all employees, and provide a mentally and physically rewarding workplace environment.
- 4. Provide shareholders and other stakeholders with full and fair disclosure of corporate information.
- 5. Take a proactive, independent approach to protecting the global environment and improving local living environments.
- 6. As a good corporate citizen, engage proactively in philanthropic activities and other activities that benefit
- 7. Respect international rules and local laws, cultures. practices and customs, and always strive to contribute to local progress and development.
- 8. Respect the value of other companies' business and technology information as well as our own, and implement proper controls regarding such information.
- 9. Comply with trade-related laws and regulations in order to contribute to the maintenance of international peace and security.
- 10. Should a situation arise that runs counter to this Code of Conduct, managers shall endeavor to resolve the matter, establish the cause and take steps to prevent a reoccurrence. They will also endeavor to provide a prompt and accurate disclosure and explanation of the facts of the matter, clarify where the responsibility lies and deal strictly with those concerned, including with respect to their own activities.

# Special: For Our Customers' Smiles

Sales

What I keep in mind toward building a win-win relationship with my customers is, first, "reflect the comments of our customers faithfully in the company," secondly, "take action to address each complaint on the same day," and thirdly, "continue our relationship of trust with our customers." As the result of my efforts, one of my customers invited me to a farewell party for a key person who was about to retire. I attended the party and saw "a thank-you smile." That is my HiKQ.

> **Homare Watanabe** Chubu Area Operation

I am now in charge of sales of broadcasting systems for the key stations in Tokyo and for communication satellite (CS) stations. The customer-oriented "heart of HiKQ" is essential for sales personnel. As a woman, I remember to exercise meticulous care and customer follow-up in engaging in my sales activities. I think that by making a committed response in case we have inconvenienced our customers, I enhance my relationship of trust with my customers and believe that such efforts will then lead to customer satisfaction.

Madoka Kuhara

Sales Department II, Broadcast Systems Sales Center





I am in charge of maintenance service for semiconductor manufacturing equipment in the Hokuriku region.

I keep in touch with my customers on the forefront every day. In reports after the end of work, I monitor what my customers need through casual conversations. I remember to think of that and act on it on my own in my activities.





# **HiKQ** innovation activities

Maintenance



My main duty is to maintain equipment for disaster monitoring, intruder detection, burglar alarm facilities, and other monitoring systems. To allow our customers to use such equipment securely and reliably, I remember to propose repair plans and make easy-to-understand reports from a customer's point of view. I will continue to improve my skills and improve my service quality based on the basic principle of achieving customer satisfaction.

Toshihiro Takahashi

Quality assurance



I am in charge of evaluating software quality for wireless communication systems. In addition to the basis of quality assurance being "eliminating external defectives," I do work these days by keeping in mind the spirit of "HiKQ" so that I can identify and correct imperfect specifications in terms of the system and other faults, while thinking of our customers' methods of operation when conducting design reviews and evaluations of processes upstream of the design process, in order to offer products that our customers really need.

Takuro Furusho Software Quality Control Section, **Quality Assurance Center** 

Installation

I am in charge of site installation work for disaster-prevention

administrative wireless systems for regional autonomous bodies. I remember to conduct secure work while constantly being aware that the systems we deliver will help to protect the "safety and security" of local community residents through the customers in charge of disaster prevention. What I could see at the scenes of disaster prevention actions are the "smiles of relief." I find my duty to be worthwhile because the systems I deliver can help to prevent disasters.

Shinichi Kawaguchi

Emergency Communication System Engineering

Wireless Communication System Engineering Center

I support the construction engineers (such as giving advice on installation control in contractor work) with regard to monitoring systems for the Ministry of

Land, Infrastructure, Transport and Tourism and other public entities and disaster prevention administrative wireless systems.

I think of and act on "what kind of installation control do my customers need" together with the site engineers. When a customer recognizes my efforts by saying "I'm so glad that I commissioned this work to Hitachi Kokusai Electric," smiles come to me spontaneously and I feel that I have really accomplished something.

> Shigemitsu Nezaki Construction Center



# **Engineering**

I am in charge of designing aviation equipment in the Defense Electronics Division. Product value lies not only in the aspect of meeting the specifications but also in user-friendliness and other invisible aspects as well. I always remember to properly monitor the product needs of our customers

(including their environment and the demands of society) and address those needs in my design activities.

> Shinji Kumagai Engineering Department II, Hamura Works

I am in charge of designing super-high-sensitivity EM-CCD cameras used mainly in monitoring systems at important facilities. In recent years, under the motto of "customer's viewpoint," I have actively visited my customers and through meetings, demonstrations and other sessions, I work to accurately monitor what my customers really need (such as functions, user-friendliness, environmental perseverance, particularity of surveillance targets, etc.) and incorporate those needs in our product development.

#### Akira Fukushima

CCTV Products Engineering Department, Camera System Engineering Center

HiKQ (pronounced "High-K-Kew") represents HiKE Quality (Hitachi Kokusai Electric Quality). This refers not only to product quality but also to the quality of all business procedures that may lead to a high degree of customer satisfaction. Given today's severe market conditions, the key to sustainable growth is to speedily create advanced and high-quality products that win customer support. We initiated our activities in August 2009 and in fiscal 2010, under the slogan of "for our customers," each and every colleague will be problemconscious and proceed with business process reforms.

I design mobile systems based on digital wireless equipment at the Wireless Communication Systems Division.

I constantly keep in mind one of the points of the "heart of HiKQ" in that "we think and act on our own from customer's point of view."

I actually go to the place of usage and actively communicate with our customers. In so doing, I become able to fully understand customer comments and requests. To respond to these, I work hard on the day-to-day job.

## Toshiya Isozaki

Communication System Engineering Department, Wireless Communication Systems Division

## Manufacturing

I am an assistant manager in charge of manufacturing and testing STL/TTL equipment, which plays an important part in the adoption of terrestrial digital broadcasting.

Some tasks conducted in our department entail extreme tension on us, not only in the factory but also out at the site during live broadcasting. With customer satisfaction put first, all of us join forces as one unit.

#### Kenichi Komatsu

Production Department, Production Center

As part of the HiKQ activities, I reduce defectives in the mounting process for printed circuit boards. I disseminate the know-how and knowledge cultivated by each manufacturing site for mounting printed circuit boards in our group in a cross-divisional manner, so that we can work to improve mounting technology for printed circuit boards on a companywide basis. In recent years, efforts have been accelerated to advance super-small chip parts, achieve a higher integration of printed circuit boards, and employ other mounting technologies for printed circuit boards, and we will work to improve quality to win customer confidence.

#### Ken Ono

Production Engineering Department, Production Center



I am in charge of procuring electrical parts, drive parts, and other parts at the Semiconductor Equipment Division.

To deliver the equipment on the delivery dates satisfactory to our customers, I work to shorten the time required for any bottleneck parts procurement.

To be able to meet the required schedules of the manufacturing department, I will work on even more items and continue to improve our business practices.

## Takahiro Watanabe

Toyama Procurement Department, **Group Procurement Division** 

I am in charge of purchasing connectors. The parts that I procure become products in the factory and serve many people in society. That is why I find my work worthwhile. When I purchase something, I stress Q (quality), C (cost), and D (delivery date). In the same way regarding the procurement of parts, I would also like to make much of those points from a customer's point of view. I will proceed with "parts standardization"the HiKQ activity for that purpose — and contribute to society.

#### Yuma Tamura

**Group Procurement Division** 



# With Our Customers - Pursue the Quality -

Under the slogan of "establish HiKQ as a brand of confidence that satisfies our customers," all colleagues will observe fundamentals, do things the right way and, from a customer's point of view, think and act on their own and work to make continued reform of each business procedure.

# Providing Safe Products and Services

We comply not only with the Product Liability (PL) Law, domestic and international laws, and safety standards, but observe also in-house standards for further safety in an attempt to improve the level of quality, thereby providing our customers with safe and high-quality products and services. Moreover, we hold the "Product Safety Conference" meeting to share information and consider ways of preventing nonconformities based on case studies of failure occurring both internally and externally.

# Policy to Improve Quality

We have certification of ISO 9001 (quality management systems) for all our Works and are continuously improving our quality management system by using the PDCA cycle in the process approach. In order to further satisfy various requirements of customers on products and services, we also received JIS Q9100 and TL 9000 certification as applicable to specific product areas, and incorporated our sales departments into the quality management system.

# Policy to Address Quality Problems

A series of review and recurrence prevention activities based on thinking and acting from the customer's standpoint is called Ochibo Hiroi (meaning "gleaning"), which identifies the direct technical causes of problems and the motivational problems that led to those causes, and involves working to prevent recurrence and verifying similar products in an attempt to prevent similar problems.

■Flows of quality improvements



# Information Security

Our Information Solution Center may accumulate customer information and/or company secrets when it provides services for developing and maintaining products and systems. In providing maintenance service, we may also collaborate with another corporation, thereby running a much higher risk of "information leakage."

The Center has built an Information Security Management System (ISMS) in order to ensure the "confidentiality, integrity, and availability" of personal information and other information assets, solidify rules and systems for protection, and work to win the confidence of both customers and society. The Field Support Department of the Center and the Information Solution Group in Kansai Area Operation have recently obtained certification under ISO 27001—a world standard for ISMS. Going forward, we will establish even higher security for customer information in an attempt to establish "customer confidence and our continued reliability."

#### ■Concept of ISMS



Incidents and accidents

Theft and negligence

# HIKQ ACTION

I deeply feel from daily conversations with my customers that "information security" management is one of the important issues in proceeding with the information business. We recently arranged a well-established system in response to our acquiring ISO 27001 (information security management systems) certification. In the future, we will work to earn further confidence from our customers for gaining more orders.

Noritoshi Ichitsubo

Kansai Area Operation

Home Page of Hitachi Kokusai Electric Inc. to inquire about our products and services:

http://www.hitachi-kokusai.co.jp/global/contact/ or

Hitachi Kokusai Electric Contact

Search<sub>y</sub>

<sup>\*</sup> Usual inquiries concerning quality problems and repairs are supported by the relevant sales and service staff.

# Prevention of Global Warming -

We develop leading-edge energy-saving technology to meet our customer needs for global warming prevention.

# A plasma nitridation/oxidation system that assists customers' environmental performance MARORA®

We improve equipment performance and resource/ environmental efficiency in an attempt to certify as a Super Eco-Product'-

Regarding semiconductor manufacturing systems that initiate the manufacturing of memory and other semiconductor devices, the equipment function and environmental performance levels of those systems are improved day by day in response to the refinement and integration of devices.

The new plasma device known as MARORA® offers 6% higher productivity, a 23% smaller equipment footprint, and 15% lower energy consumption than our conventional units (models marketed in May 2005). Moreover, by reducing the number of impurities and reducing contamination levels at device manufacturing, thereby improving process performance, we meet customer demands for higher yield. These efforts respond to customer needs for an environmental contribution. By proceeding with further improvement, we seek the certification of Super Eco-Products.



MARORA®

\*MARORA® is a registered trademark of Hitachi Kokusai Electric Inc.

# **HIKQ ACTION**

This equipment was developed in a short period, under the concepts of high productivity, reduced footprint, and low power consumption. Since nitrogen and oxygen are the only processing gases required in nitridation/oxidation, customers need not furnish exhaust gas processing equipment. Regarding that point, I think that we also contribute to customers' environmental performance. Going forward, we will develop equipment that can be differentiated from that of our competitors not only in equipment performance but also in environmental performance as well.

#### Masayuki Tomita

Single-Wafer Equipment Development Department, Semiconductor Equipment Division

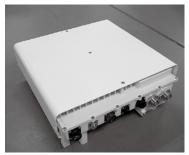
## High-efficiency transmission amplifiers for wireless base stations

- Aiming for the highest-level technology in the world -

Transmission amplifiers for wireless base stations ("amplifiers" hereafter) amplify signals transmitted from base stations to portable phones and other wireless terminals.

In the development of these amplifiers, we achieved high efficiency by adopting gallium nitride elements and optimized the Doherty type amplifier in our own way. With the new model, we reduced energy consumption by about 40% from that of our conventional models developed until March 2008.

That is, we can save 33 W from the conventional consumption from 83 W to 50 W in operation of amplifier, and if a daily average operation time is for six hours, the yearly energy saving would be about 72 kWh per unit. In CO<sub>2</sub> emission equivalents, this is equivalent to a yearly reduction by about 40 kg of CO<sub>2</sub> emission (561 g CO<sub>2</sub>/kWh). In Japan, there are more than 200,000 wireless base stations, with differences in output power or composition. If only 1% of those stations, 2,000 amplifiers are replaced to realize similar energy-saving, we can achieve a yearly reduction of 80 tons in CO2 emissions.



Wireless base station unit

# HIKQ ACTION

We succeeded in achieving a power efficiency considered impossible several years ago by all the team members keeping up high goals, putting together the knowledge, ideas and latest expertise of many people, engaging in daily debate, and continuing to tackle the challenges slowly but steadily without giving up. We would like to meet society's needs with all the team members united as one.

#### Satoshi Furuta

Infrastructure Engineering Department, Wireless Communication Systems Division



# With Our Customers - Safety and Security -

We strive to meet our customers' needs and ideas for building a safe and secure society.

# Integrating video with wireless communication to realize improved safety and security in station platforms

Customers working for railroad services desire definitive safety and efficient operation.

We assist ensuring passenger's safety and security with our platform-monitoring video data transmission system that combines a security video camera with a 60 GHz wireless transmitter.

By using a large-capacity wireless transmission device for the 60 GHz band, this system transmits video images taken with video cameras installed on platforms to the train driver's cabin to enable the following:

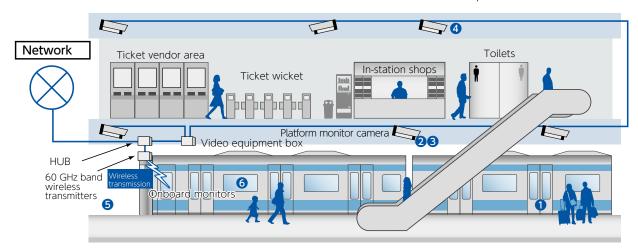
- 1) Checking the opening and closing of train doors
- 2) Checking passenger safety at the time of departure
- 3) Checking the status of congestion on platforms thus helping to run trains more safely and smoothly.

# A surveillance camera system is used to provide help in railroad service

The growing needs for a surveillance camera system in the railroad field stem in part from recent public concerns about sexual molesters onboard trains, along with other needs. In response to the confidence of our railroad-operator customers, we deploy proposal activities based on various scenes, thereby contributing to security and reliability, saving labor in service, and improving service for passengers.

Surveillance camera systems can give flexible help in numerous scenes including:

- 4) Station facilities: Toilets, shops, ticket vendors, and concourses
- 5) Platforms: Passengers getting on and off, falling, train entry, and escalators
- Operation without conductors: Monitoring of the in-vehicle status and traffic status, and unattended stations
- 7) Substations and vehicle bases: Intruder detection and accident and disaster status
- 8) Vehicles, traffic tests, etc.: Video information in various tests and inspections



# HIKQ ACTION

We developed this product with the keywords of "human safety" and "safe operation." We're happy to have successfully developed highly reliable products that dramatically improved the safety and convenience of the railroad, very familiar transportation infrastructure. Going forward, we will continue to incorporate customer's needs into product development in order to help build a safe,

## Yohei Yamamoto

secure, and affluent society.

Communication System Engineering Department, Wireless Communication Systems Division

# HIKQ ACTION

Due to the recent growth in security needs, monitoring systems are increasingly important equipment for railroad operators. We are proud that our monitoring systems are used on station platforms, in wickets and at other commonly used facilities. We will continue meeting customer expectations and provide more comfortable systems that contribute to society.

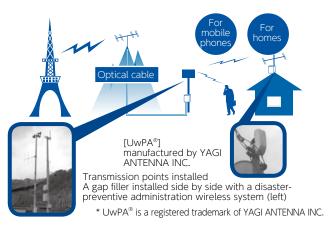
#### Makoto Daihoji

Video Systems Sales Center, Broadcasting & Video Systems Division

# Resolving poor reception by using a gap filler system and providing disastér prevention information by using OneSeg service

The gap filler system resolves, by means of wireless system, receiving disturbances in view-disrupted areas where the residents cannot directly receive terrestrial digital TV signals. This system equipment is simple and easy to install. In addition to terrestrial digital broadcasting, this system is applicable to area-limited One Segment broadcasting service, which is designed for video and data broadcasting (called OneSeg broadcasting) within a limited area. OneSeg broadcasting can be received through mobile phones and other widespread mobile terminals, so that it is advantageous in allowing people to easily obtain appropriate information in an emergency disaster while moving outdoors.

Customers who have already taken delivery of this system expect it to be useful as a third disaster prevention information transmission system, following radio and disaster prevention wireless systems.



# HIKQ ACTION

The TV Co-viewing Facility Union for the Agewa district in the city of Kashiwazaki, Niigata Prefecture, introduced this system in 2009. The union is Japan's second user and the Shinetsu region's first user of this system as a measure to address the poor reception in terrestrial digital TV signals due to geographical features. People in that region experienced a difficult time as evacuees due to the Chuetsu offshore earthquake in Niigata Prefecture that occurred on July 16, 2007. Moreover, these people highly evaluate this system because of its ability to provide TV information from OneSeg broadcasting outdoors in case of a disaster or similar emergency.

Yoshikazu Yokota YAGI ANTENNA INC.

# Realizing broadcasting with CD-level sound quality by using a short-wave-band transmitter

DRM (digital radio mondiale) is a digital system for short wave broadcasting. It can therefore secure a sound quality comparable to that of CDs and also provide text broadcasting, image transmission and other high-valueadded communications as well, and is mainly being spotlighted in Europe these days.

Our DRM 26 MHz radio transmitter for local broadcasting covers an entire city by transmitting data from a TV/FM antenna tower using power as low as 500 W or less. This system has been introduced to customers in Europe as a transmitter for radio broadcasting.

This small-power transmitter offers lower pricing thanks to its reduced size and simplified parts and functions, and represents an unrivaled high-performance product.



DRM transmitter

# HIKQ ACTION

During the development process, I traveled to France a number of times to attend meetings about the functions, interface and other specifications, and also confirmed system performance by demonstration equipment with our codeveloper Thomson. Because the system was intended to offer easy installation and operation, our downsized design also features a structure that allows extremely easy operation. At the moment, field testing is under way in various parts of the world by using demonstration equipment. We will work in the future to have this transmitter used for DRM broadcasts worldwide.

## Takeshi Fujimoto

Engineering Department I, Hamura Works



# With Our Business Partners - Material Procurement -

We will work to establish good partnerships with our business partners and continue to grow together in order to create and manufacture good products that satisfy our customers.

## [Basic Principles for Procuring Materials]

The Hitachi Kokusai Electric Group procures materials, services, and other items necessary for production and supply which are appropriate in terms of quality, delivery period, and price from global markets, in order to provide products that its customers will appreciate and be satisfied with.

The Group also emphasizes the need to observe relevant laws and to be eco-friendly, engages in fair and open trading, and elaborates close partnerships with its business partners.

# **Collaboration with Our Business**

To provide high-performance products and services that our customers can use without worry, it is important to establish a good partnership and step up our linkage with our business partners. Our Group has established as our business model the practice of continuously providing products that make our users happy by growing together with our business partners, and maintaining the best possible trading relationship.

#### 1. Sharing CSR

In selecting our business partners, we request their understanding about our CSR policy. Specifically, we hold periodic business partner meetings to ensure their understanding of our managerial philosophy, environmental concerns, information security and other ideas of our Group, and thereby seek their cooperation. We are also working to eliminate the use of paper in order forms, accounts payable schedules, and other documents issued to our business partners in collaboration with them by switching to transmission on the Web.

#### 2. Information security

We ask our business partners to control as confidential

information the diverse information that we share with them by concluding a basic agreement. Moreover, we ask our business partners to whom we provide particularly important information to sign an "agreement for preventing information leakage," and work together in order to step up information security. (We have established such agreements with 323 corporations as of April 1, 2010.)

#### 3. Eco-friendliness

This refers to promoting the procurement of raw materials and parts having low environmental impact. We identify as "green suppliers" our business partners who have obtained certifications such as ISO 14001 (environmental management systems), and encourage more companies to acquire such certification. We publicly recognize two business partners as "eco-friendly suppliers" each year for their excellent cooperation with us.



Business partner meeting at the Toyama Works



Recognition with thanks

# VOICE

Business partners who received 2009 Eco-friendliness Awards, and their comments

#### Hokuriku Electric Industry Co., Ltd.

We appreciate this very honorable prize that we have received. As an electronic parts manufacturer, we properly monitor the effects of our business activities in terms of production, products and services on the environment, and then conduct environmental conservation activities according to the environmental management system. We intend to continue our efforts to provide safe products according to our basic principles (of not incorporating, using or shipping hazardous restricted substances) in order to meet chemical substance regulations both at home and abroad.

#### limuro Kikai, K.K.

As a corporation seeking to become a green supplier, we highly appreciate the Eco-friendliness Award, a very honorable prize indeed. Encouraged by receiving this award, we will continue our efforts to improve the environmental management system to which we are now committed, remain constantly aware of the environmental aspects related to production activities, understand that global environmental conservation is the most important challenge common to all human beings, and work to reduce environmental impact. We will continue our efforts to improve quality and save resources through daily activities, thereby working to improve productivity.



# To Live Up to Society's Trust

By flexibly responding to changing social situations and unexpected incidents, we will meet the expectations and confidence of our customers and society.

# Identifying and properly coping with

#### Compliance and corporate ethics

Widespread criticism is being directed at bid-rigging, cartels, and other illegal acts perpetrated by corporations that significantly affect society and the economy. Moreover, there is growing social interest about protecting the information of both corporations and individuals. In reflecting such new elements of raising anxiety in the international arena as the issue of nuclear development, export control is also assuming greater importance. With our CSR Promotion Division taking the lead, we are implementing education and periodic audits, while making updates of their contents, and are working to ensure that the strong intensions of top management concerning compliance (which means living up to society's trust) including environmental conservation are thoroughly implemented in all corners of our group.

#### Risk management

In response to the outbreak of the new influenza, we established a corporate management headquarters, and coped by such means as ensuring that measures are thoroughly taken to prevent further infection and monitoring the status of infection in the group. On the other hand, in preparing for an outbreak of avian flu which has a high pathogenic effect, we have set up a plan, the core part of which is to enter a mode where mobility is minimized with emphasis placed on the effects on human lives, while continuing some tasks related to our group's social responsibility wherever possible. We are then arranging further details of this plan.

#### Ensuring reliability in financial information

We arranged our internal control system related to the reliability of financial information by using the framework and manual for internal control established by our parent company, Hitachi, Ltd., and completed the procedures for evaluation and auditing for fiscal 2009.

# Internal reporting system, "Ethical Helpline of the Hitachi Kokusai Electric Group"

We ensure that the employees are informed through internal gazettes and seminars of the principles of "keeping secrets," "not mistreating informants," and "responding with good faith." This system is operated by a committee including a lawyer as an outside member in order to earn the trust of informants through appropriate

#### Ethical Helpline of the Hitachi Kokusai Electric Group

: rinri.helpline@h-kokusai.com e-mail

Postal mail: Representatives of the Ethical Helpline,

Hitachi Kokusai Electric Inc.

AKIHABARA UDX Bldg. 11F, 4-14-1, Sotokanda,

Chiyoda-ku, Tokyo 101-8980, Japan

The Helpline accepts reports not only from employees of the entire Group but also

# Disclosing information fairly and actively

#### Briefing on financial results and other sessions

For the sake of institutional investors and securities analysts, we organize quarterly briefings on financial results, meetings on individual matters, and other activities in an attempt to promote better understanding of our Group.



Briefing on financial results for the term ended March 2010



# With Our Colleagues

"People" are the axis of all business operations.

We engage in various efforts to enable various personnel to fully demonstrate their abilities just as they like.

# Our group's development of human resources

We train human resources to fulfill the mission of the medium-term managerial plan: to be "social innovators trusted by customers and creating new value in the next era."

#### Our basic philosophy on developing human resources and basic principle for the present fiscal year

Our basic philosophy is to train human resources who "learn on their own, think on their own, and act on their own." The basic principle for the present fiscal year presents the following four points in an attempt to realize HiKQ innovation:

- I. Training human resources able to create new business
- II. Training human resources able to get things done
- III. Training human resources able to activate the organization
- IV. Training human resources able to conduct their basic tasks securely

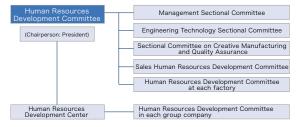
#### Training human resources by using a map of technical and sales human resources

In 2009, we prepared a map for monitoring the skills of all our engineers. In fiscal 2010, we will monitor the skills of our salespersons as well for a further functioning of the map. More specifically, we will proceed to training measures and self-education related to the technical and sales skills which are connected with the results of the customer satisfaction survey.

#### Assessment of management skill

The ability level table that we have used before in taking measures to train project leaders will be extended to executives and young leaders. In those efforts, the evaluation of "ability to respond to stakeholders" is an approach for evaluating the skill of managing the relationship with customers and others concerned with the company.

■Human resource development system



\*Roles of the second tier committees of the Human Resources Development Committee The sectional committees are for common or intersectional training measures applied to the whole corporation. The Sales Human Resources Development Committee and those below implement training measures in each section.

Assessment of management skill (to respond to stakeholders)

#### Evaluation items (examples): for customers

Level 5: A long-term relationship of confidence is established with customers, proposals are continuously made for enhancing customer value into the future, and the personnel can implement them.

Levels 2 to 4: (Omitted)

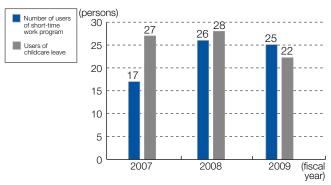
Level 1: No analysis is conducted of the customers, and the personnel are passive.

# Support for achieving work-life balance

Efforts are made to enhance the programs in order to allow colleagues to balance their work with family life and realize diverse ways of working and living, including childbirth and child care.

In fiscal 2009, we worked to establish the following programs based on the revision of laws and other trends, and initiated the programs on April 1, 2010.

- 1) Even if one's spouse is a dedicated homemaker (whether male or female), one can take child care leave.
- 2) If one's spouse takes child care leave from the workplace, one can take child care leave for a required period of up to one year until one's child becomes one year, two months old.
- 3) The number of days leaving for nursing a child and the reasons for acquiring leave are extended.
- 4) Nursing care leave is established.
- 5) A leave program is established for cases where one accompanies one's spouse assigned to work overseas.
- 6) A colleague engaged in child or nursing care, in cases applied, will be exempted from unspecified work and entitled to a time limitation.
- Numbers of users of childcare leave and short-time work programs (the Company only)



# HIKQ ACTION

By using the map of technical and sales human resources, you can see how high your skills are at the moment in a given field. Moreover, the map for fiscal 2010 can be compared with that of the previous fiscal year, so that we can use it for progress control as well. Because management skills are required in my present work as part of the engineering department, I acquired a PMS\* license. I wish to use these enhanced skills in my work.

\*PMS (Project Management Specialist): A license certified by the Project Management Association of Japan (PMAJ).

#### Hideki Mizuno

Broadcasting Tapeless Systems Division, Information Business Management Division



# Safety and health activities

Upon the occurrence of the leave accident in October 2009, we have further stepped up various safety and health activities targeting the "buildup of a safe workplace free of accidents." In addition to the efforts hitherto conducted, we "thoroughly ensure the basics and rules again,"

"re-inspect safety equipment," "learn from previous disaster cases," and "improve safety awareness by using posters and holding morning meetings on safety." In so doing, we will continue our efforts with our nerves braced in an attempt to reduce the incidence of disasters to complete zero.



# Disaster prevention

Each factory conducts evacuation drills every autumn. Our Koganei Works conducts evacuation drills as joint exercises with the Kodaira Fire Station, and the evacuee colleagues and the self-defense fire-fighting team that lead the evacuee colleagues experience the drill while imaging "a disaster actually took place."

In the meantime, the Koganei Works has signed an agreement stipulating that, in the event of a disaster due to

an earthquake, it will engage in fire-fighting activities in conjunction with the Kodaira Fire Station, Kodaira City, and other business establishments in the community. The works further enhances its fire-fighting and disaster prevention system, while reinforcing its collaboration with local community residents.



Joint exercises with the Kodaira Fire Department

# HIKQ ACTION

The self-defense fire-fighting team not only trains for "fire fighting" but also for "emergency rescue" as well. In evacuation drills, they assume a situation where people are injured and demonstrate tension-filled rescue activities just like the real thing, such as first aid to treat injuries, resuscitation of the heart and lungs of unconscious victims, and defibrillation by AED. From contacting the fire department by dialing 119 until the fire engines and ambulances arrive, we wish to keep in mind that the self-defense fire-fighting team "protects the both company and colleagues," and will continue its training.

#### Yumi Kawakami

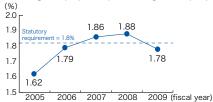
Engineering Management Department, Information Technology Management Division

# Promoting the employment of diverse personnel

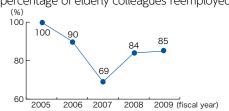
In order to "respect human rights and develop while contributing to the creation of a sustainable society," we declare in our code of conduct that "we respect the diversity, character, and individuality of all employees, and provide a mentally and physically rewarding workplace environment." Based on that, we promote the employment of the physically challenged and the reemployment of elderly colleagues.

Regarding the employment of the elderly, we introduced a reemployment program that extends the employment of retired colleagues to 65 years old at most, starting in fiscal 2005. We convey the skills of experienced personnel to younger personnel while providing a rewarding workplace. On the other hand, for the employment of persons with disabilities, we work on an ongoing basis to increase employment opportunities toward achieving the statutory required percentage of such employment at 1.8%. We intend to continue our efforts to arrange a lively workplace environment by making much of the personalities of individual workers in order to gain the satisfaction of each and every colleague.

■Changes in the percentage of physically challenged employees



■Changes in the percentage of elderly colleagues reemployed



# HIKQ ACTION

Since I entered the company in 2005, I have been working on engineering management. I walk slowly, but am surrounded by very kind-hearted people who volunteer to walk as slowly as I do, and who are willing to wait for me with the door open on the staircase. In my private life as well, I engage in wheelchair basketball games and other activities, thereby spending worthwhile days both publicly and



#### Hiro-omi Ito

Engineering Management Department, Information Technology Management Division



# With the Community and World in Perspective

To understand the situation of the community and the life of people there and to become more sensible are to think of the future needs of our customers.

# Charity money sent based on matching funds for the earthquake disasters in Haiti and Chile

January 2010 saw a great earthquake in Haiti, followed in February by another in Chile. Many people became victims or lost their homes. Our group used a "public donation system" to raise money from our colleagues and also employed a matching fund system where the money collected was combined with the same amount of money provided by the company, and then sent the total money to help the victims. On the opposite side of the earth, Chile

is one of the export destinations for our broadcasting cameras. We pray for, and keep in mind an early recovery of both countries.

Our charity money and contributions are used in rescue activities of the Japanese Red Cross Society, by such means as dispatching physicians to the sites.



© Talia Frenkel/American Red Cross

# Contribution by collecting disused books

"Let's contribute books and CDs no longer needed at the workplace or home, in order to raise money for educational support of disadvantaged children in Asia."

Our group cooperated with the NGO engaged in such activities, and collected disused books on a group-wide basis. This originated with the proposal of a colleague and was grown group-wide as "a social contribution activity that anyone can easily join." It was a first attempt, but colleagues were interested and we managed to collect

many contributions. We intend to continue conducting such activities periodically for "contributing to society" and "streamline the office stock" by finding venues for disused things.



Participant members who brought disused books

# HIKQ ACTION

I agreed with the idea of making a social contribution by collecting unnecessary books and worked together with the secretariat's staff. As a result of efforts made by the entire group, including all Works, offices and group companies in the country, I touched many "warm hearts" of our colleagues.

I hope that our spirit will serve to benefit the support of education for children of the world in any extent.

Naoko Kariya VEC Center

# Volunteer cleaning-up activities

Hitachi Kokusai Electric Services Inc. and HS Services Inc. conducted volunteer cleaning activities involving 20 volunteers in total at each site from among the colleagues on the Tamagawa Josui canal promenade along Itsukaichi Street in Kodaira-shi neighboring the head office of Hitachi Kokusai Electric Services Inc. and in Nagoya's Chigusa-ku neighboring to both of their Chubu Branch offices in mid-November 2009.

On that day, for about 30 to 60 minutes before the start of work and in the midst of the refreshing early morning air, all participants enthusiastically cleaned up the dead leaves of autumn and picked up cigarette butts.



Cleaning on the Tamagawa Josui canal promenade

# Participating in joint evacuation drills at a special care house

On May 26, 2009, the prefectural day of the disaster prevention, Goyo Electronics Co., Ltd. participated in joint evacuation drills at a special care facility for the aged "Shokei-en" which concluded a "Treaty of cooperation in emergency measures against fires and disasters" with us. The drills were joined by a total of 23 members of the selfdefense fire-fighting team and General Affairs Department, who assisted in evacuating people in wheelchairs in the five zones of the care facility. With regard to wheeling speed, curbstone passing, slope traveling, and other points for attention when assisting people in wheelchairs, we were instructed beforehand and managed to guide all the evacuees safe and sound, without making them anxious, onto the premises of Goyo Electronics Co., Ltd., the presumed evacuation shelter. The evacuation drills in a situation different from ordinary drills constituted a very significant experience for team members as well, and the smiles shown by the residents at the time of said transport

were considered an irreplaceable expression of thanks. In the future, we intend to conduct these joint evacuation drills in an attempt to become a corporation that wins the confidence of the community.



Assisting the evacuation of wheelchair users

# Thinking of biodiversity –

To become aware of the nature's gift derived from biodiversity and to protect and cultivate it, we think what we can, share the information and take actions.

# High-performance camera technology is used in an ecology-friendly manner to present ecological wonders

A camera with the world's highest level in terms of superhigh speed and high sensitivity is used to minimize its effects on the ecological system while presenting unusual living scenes of rare animals. In the natural light of a dense forest, only a few staff members brought to the site a superhigh-velocity camera capable of taking a million frames per second, and then looked patiently for photographic opportunities. They eventually succeeded in filming scenes of basilisks\*1 that were elegantly running across the surface of the water.





- A joint development with NHK Science & Technology Research Laboratories produced the image presented to the entire country through broadcasting in
- \* The image on the right side was taken at a speed of 1/1000 seconds.

# Toyama City's "corporate forestry project"

The three companies located in the Toyama Yatsuo Central Industrial Park (the Company, Kokusai Electric Semiconductor Service Inc., and Kokusai Electric Techno Service Co., Ltd.) jointly participate in the "corporate forestry project" promoted by Toyama City. While receiving support from the prefecture, the municipal and an environmental protection association, we joined a woodland nurturing activity of conserving about two hectares of forest in the Toyama Yatsuo Central Industrial Park, which is a city-owned area. Fiscal 2009 saw such activities as weeding, thinning out shrubs and branches,

maintaining trails and planting trees being undertaken on a total of seven occasions.



All participants together after work

# TOPICS

#### Participating as a Promotion Partner of "The Declaration of Biodiversity by Nippon Keidanren"

We agreed to the concept of "The Declaration of Biodiversity by Nippon Keidanren" and declared our intention to participate as a Promotion Partner of said declaration in December 2009.

\*\*1 Basilisk: A kind of iguana who lives in the jungles of Central America. It is 60 to 80 cm in overall length.

# Participating in the volunteer experience tour as part of the Horgin Desert **Greening Project in China**

In September 2009, the volunteer experience tour as part of the Horqin Desert Greening Project in China (arranged by the CSR Promotion Department, Hitachi, Ltd.) was joined by one member of our Company, together with colleagues and their families from among other members of the Hitachi Group, totaling 25 people. At a village about a three-hour drive north from Shenyang Taoxian International Airport,

the participants experienced various tasks such as combating desertification and cultivating saplings, thereby working to engage in exchange with rural areas and college students in the local community.



Pruning in a cultivated forest

## I HIKQ ACTION

I was overwhelmed by the vast desert that extended beyond the horizon. Villagers said it had been actually grassland three decades ago and been blessed with much grass and many trees. Through the work, I felt that tree planting required very much labor and time. I had a close look at the

reality of desertification and experienced tree planting activities, and realized that desertification was a familiar social problem as well as an environmental one. Some years later, I would like to return there to see how my planted saplings turned out.



#### Shinya Oka

Environmental Management Office, **CSR Promotion Division** 



# Eco-Management (promoting environmental management)

We work to cultivate an environmental mind establishing an environmental management system as a pillar for it, according to Hitachi Kokusai Electric's Code of Conduct and Environmental Conservation Action Guidelines.

#### Hitachi Kokusai Electric Action Guidelines for **Environmental Conservation**

#### Purpose

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

#### Home Page of Hitachi Kokusai Electric Inc.

http://www.hitachi-kokusai.co.jp/global/csr/ environment/earth.html

Hitachi Kokusai Electric Inc. Action Guidelines for Environmental Conservation

Search

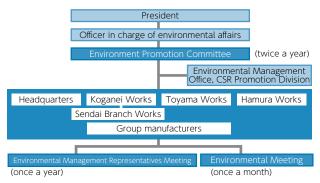
## **Status of Acquiring Certification under** ISO 14001

Our Group began acquiring certification under ISO 14001 (environmental management systems) in fiscal 1996. By the end of fiscal 2006, we had acquired certification under ISO 14001 for all our manufacturing and service centers. From fiscal 2007, we are promoting our integrated ISO activities as Hitachi Kokusai Electric Inc. including the head office's sales department, which is our contact with our customers, and renewing certification under ISO 14001.

# Environmental Management System

With the president at the top, the "Environment Promotion Committee" including the environmental affairs officers of Group manufacturers\*1 deliberates, determines, and implements a medium-term environmental action plan, yearly targets, and important challenges for the entire

The Environmental Management Office of the CSR Promotion Division helps promote the implementation and performs follow-ups on the progress at the "Environmental Management Representatives Meeting."



\*1 Group Manufacturers...YAGI ANTENA INC., Hitachi Kokusai Denki Engineering Co., Ltd., Goyo Electronics Co., Ltd.,

## The Hitachi Group's environmental efforts—"Environmental Vision 2025"

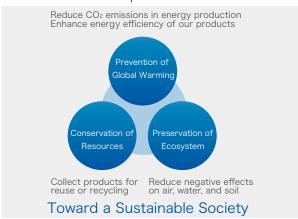
The Hitachi Group has been promoting its "Environmental Vision 2025" that targets the annual reduction of carbon dioxide emissions by 100 million tons as pertaining to the use of Hitachi Group products by fiscal 2025. Just like other organizations, at our group as well, members in charge of "Environmental Vision 2025" wear environmental symbol badges, make environmental posters, and work to penetrate the group with environmental impact reduction activities for products, thereby actively engaging in environmental actions.



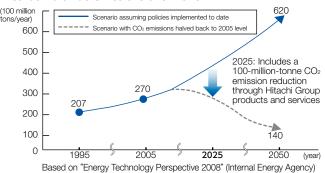


Eco-Products poster

■What is the Hitachi Group's "Environmental Vision 2025"?



■Concept of the Hitachi Group's target for reducing carbon dioxide emissions until 2025



# Targets and Results of Environmental Activities in Fiscal 2009

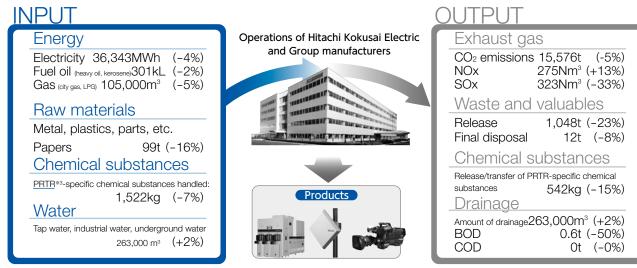
	Main item	Medium-term plan	Fiscal 2009 targets	Fiscal 2009 results	Evaluation
Eco-l	Constructing and developing the integrated environmental management system	Renewing certification for the integrated environmental management system	Renewing certification for the integrated environmental management system	Renewing certification for the integrated environmental management system	* * *
Eco-Management	Encouraging colleagues to take environmental e-learning	90% attendance by fiscal 2010	85% attendance	90% attendance	* * *
	Promoting the purchase of eco-friendly office supplies and other products	Green procurement ratio: 90% by fiscal 2010	Green procurement ratio: 86%	Green procurement ratio: 94%	* * *
Eco-Products	Promoting Eco-Products	Total sales ratio of Eco-Products: 50% by fiscal 2010	Sales ratio of Eco- Products: 48%	Sales ratio of Eco- Products: 55%	444
oducts	Higher product environmental efficiency	Registration ratio of Super Eco- Products:15% by fiscal 2010	Preparation for registration	Seven models registered	444
Eco-Factories	Prevention of global warming	35% reduction in basic unit of CO₂ emissions in actual production <sup>®2</sup> by fiscal 2010 (from level in fiscal 1990)	33% reduction in basic unit of CO <sub>2</sub> emissions in actual production (from level in fiscal 1990)	40% reduction in basic unit of CO <sub>2</sub> emissions in actual production (from level in fiscal 1990)	* * *
		11% reduction in actual production transportation energy unit requirement by fiscal 2010 (from level in fiscal 2006)	10% reduction in actual production transportation energy unit requirement	22% reduction in actual production transportation energy unit requirement	* * *
	Waste reduction	90% reduction in final disposal by fiscal 2010 (from level in fiscal 1998)	89% reduction in final disposal (from level in fiscal 1998)	98% reduction in final disposal (from level in fiscal 1998)	* * *
		Final disposal rate: 1% or less (in fiscal 2010)	Final disposal rate: 2% or less	Final disposal rate: 1.2%	<b>* * *</b>
	chemical substances substances by fiscal 2010 (from level "reducible substances"		38% reduction in release of "reducible substances" (from level in fiscal 2000)	53% reduction in release of "reducible substances" (from level in fiscal 2000)	* * *

<sup>\$2</sup> Actual production: Nominal production  $\div$  Bank of Japan's commodity price index of domestic corporations (in the electrical appliances industry)

# Operations and Environmental Loads

In conducting its operations, our Group expends resources and energy to provide products. At the same time, such operations discharge CO2 and waste. Hitachi Kokusai Electric and its Group manufacturers monitor the inputs and outputs of such elements, and work to reduce hazardous

chemical substances and increase energy efficiency. Regarding the procurement stage of raw materials and the reduction of environmental impact by our products, see "With Our Business Partners" and "With Our Customers," respectively.



**%3 PRTR: Pollutant Release and Transfer Register** 



# **Eco-Factories** (eco-friendliness in production activities)

Through the entire production process of products, we work to save energy and enhance facilities in an attempt to prevent global warming, reduce industrial waste, and accomplish similar goals.

# Prevention of Global Warming (Energy-saving Efforts)

Hitachi Kokusai Electric and Group manufacturers have set a fiscal 2010 energy reduction target in the manufacturing stage to making a 35% cut in the real production CO<sub>2</sub> unit requirement from the level in fiscal 1990, thereby working to slow down global warming. That target is shared by the rest of the electrical and electronics industry.

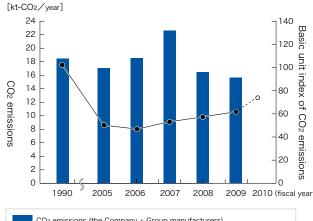
The basic unit of CO<sub>2</sub> emissions in actual production is the unit of measure for the uniform target of the electrical and electronics industry, and has been used as a control indicator since fiscal 2005. The basic unit of CO<sub>2</sub> emissions in actual production by the Company and Group manufacturers in fiscal 2009 was reduced by 40% from the level in fiscal 2009, which cleared our target value of a 33% reduction.

CO<sub>2</sub> emissions by the Company and Group manufacturers in fiscal 2009 were reduced by 5% from the level in fiscal 2008 due to the efficient operation of clean rooms and the renewal of air-conditioners.

The Group will continue to take such energy-saving measures in reexamining the operation methods of the facilities and upgrading them into energy-saving types. Our Group has supported the national campaign for preventing global warming as promoted by the Government of Japan from its initial stage, reduced the use of airconditioning at all places of business, and participated in

the "black illumination" campaign (to reduce the use of illumination).

■Changes in CO<sub>2</sub> emissions and the basic unit index of CO<sub>2</sub> emissions in actual production



CO2 emissions (the Company + Group manufacturers) Basic unit of CO<sub>2</sub> emissions (the Company + Group manufacturers)

The emission factor used in calculating CO<sub>2</sub> emissions has been reviewed by examining reports ranging from the current one to that of fiscal 1990, by using the adjusted emission factor of each electric utility as reported by the Ministry of the Environment.

#### TOPICS

#### Reducing the environmental impact of physical distribution

At the Toyama Works, we work together with Kokusai Electric Semiconductor Service Inc., which serves as the physical distribution department, to reduce the packing materials used in transporting semiconductor-manufacturing systems and cut CO<sub>2</sub> emissions through a modal shift of transportation in an attempt to reduce environmental impact.

#### Reducing the use of packing materials

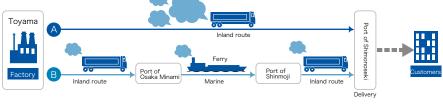
To reduce the use of packing materials for products destined for customers in Japan, we shifted from individual packing to collective packing and introduced reusable carriages, thereby achieving a 45% reduction from fiscal 2008. We also succeeded in reducing the use of cushioning materials by 54% from fiscal 2008 by switching to a different method of fixing the packages.

#### Reducing CO<sub>2</sub> emissions by a modal shift

In the transport of products destined for customers in South Korea, the specific parts of each semiconductor manufacturing system used to be loaded onto a large truck and a small truck (two trucks total) for inland transport. We then changed part of the route to marine transport by ferry to reduce CO<sub>2</sub>

In fiscal 2009, we only changed the transport by the small truck and achieved a 19% reduction per product (from fiscal 2008). In fiscal 2010, we are scheduled to change it by both the large and small trucks to achieve a 42% reduction.



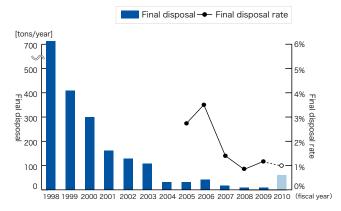


A Movement by inland route alone B Movement by both inland and marine routes

## **Waste Reduction**

The Company and Group manufacturers are working toward the target of reducing their final disposal of waste by 90% by fiscal 2010 from the levels in fiscal 1998. In fiscal 2009 we enhanced recycling, thoroughly implemented the disposal of sorted garbage, and consequently made a 98% cut in disposable waste from 1998 levels to achieve the target. Moreover, regarding the targeted final waste disposal rate of 2% or less (as added for fiscal 2005 and onwards), we achieved the target in fiscal 2009 at 1.2%. Our target for fiscal 2010 is 1% in final waste disposal rate and we are working to reduce the final disposal of waste even further.

Final disposal and final disposal rate of waste



# Promoting the conversion of industrial waste manifest\*1 into electronic form

The Government of Japan is promoting the introduction of electronic manifests in place of conventional paper-form industrial waste manifests in order to "share information" and "transmit information efficiently."

For fiscal 2009, our Koganei Works, Toyama Works, and Kokusai Electric Semiconductor Service Inc. handled 232 out of 384 cases using electronic manifests. We will continue extending this practice to other factories.

■Flow of electronic manifests



\*\*1 Industrial waste manifest: A control form to be issued for preventing illegal disposal and ensuring the proper processing of industrial waste when commissioned to a disposal agent. The issuance of such a document is mandated under the Industrial Waste Disposal Law.

## Survey Results of PRTR-specific **Chemical Substances**

According to the "Law concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management" (PRTR Law) that became effective in April 2001, business establishments handling more than a certain amount of any such chemical substances are legally obligated to report the chemical substances. However, neither the Company nor Group manufacturers have encountered any reportable substances exceeding the applicable quantity handled in fiscal 2009. In fiscal 2010, the target chemical substances specified by the PRTR Law are supposed to be reviewed. Accordingly, we will again monitor and tabulate those chemical substances.

■PRTR-specific chemical substances actually released and transferred (in kilograms per year)

		(Sum of the Company and Group manufacturers			
Chemical substance	Quantity handled	Consumption	Quantity recycled	Transfer	Release
Lead and its compounds	629	574	3	53	0
Hydrogen fluoride and its water-soluble salts	360	0	306	0	54
Toluene	243	10	0	14	220
Xylene	143	11	0	0	132

\*Substances significantly handled are shown above

# **Appropriate Control of PCB-containing Equipment**

An entity who owns transformers, capacitors, fluorescent lamp stabilizers, and related equipment containing polychlorinated biphenyls (PCBs) are obligated to strictly store and control such equipment, and properly dispose of it by the end of 2016 as per the PCB Special Measures Law. To prevent PCB loss and leakage, our Group properly controls its PCBs on a continuous basis in locked storage facilities. Moreover, the Group periodically investigates and confirms the storage level and other factors relative to PCBcontaining electrical appliances, and reports its findings to the local governments concerned every year.

#### **TOPICS**

#### **Granted the Toyama Works Encouragement** Award in "GREEN21 Recognition"

The Hitachi Group uses "GREEN21" and has set up a recognition program ("GREEN21 Recognition") in order to promote environmental activities and introduce advanced practices to the rest of the group.

In fiscal 2009, 35 sections from the Hitachi Group made their entries. Among these entries, one was granted the grand prix, four were granted divisional awards, and four others were granted encouragement awards. Out of these, our Toyama Works won an encouragement award under the theme of "improving quality in the control of chemical substances in products and promoting a corporate forestry project.'



# **Evaluation of Environmental Activities**

By setting quantitative assessment standards for environmental activities, and monitoring and analyzing such activities, we are working to upgrade environmental management and reduce environmental risks.

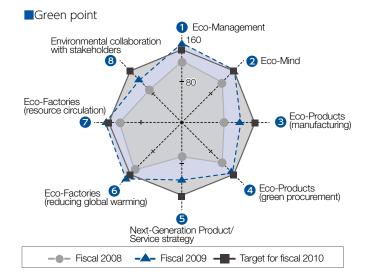
## **Evaluation results of fiscal 2009** for "GREEN21"

The Hitachi Group implements its self-evaluation system for "GREEN21" environmental activities, in order to carry out its environmental action plan securely, make continuous improvements, and upgrade its activity level. GREEN21 is a mechanism for quantitatively evaluating the degree to which the targets for environmental activities were achieved by a specific entity for each fiscal year, visualizing the results by radar chart, and reflecting the evaluation findings in subsequent environmental activities.

The system of evaluation consists of 55 items from eight categories, and is used to monitor the weaknesses in an activity and make improvements for the next fiscal year. Our result for fiscal 2009 was 1,157 GP (green points) as compared to 1,152 GP—the target common to the Hitachi Group. This means that we surpassed our target. For the final fiscal target year of 2010, we will work to increase points for Eco-Products toward achieving the targets.

#### ■GREEN 21 evaluation items

Category	Evaluation item for each category
1 Eco-Management	Action plan, environmental accounting, risk management, compliance
2 Eco-Mind	Education for employees (general education, professional education, auditor education)
3 Eco-Products (manufacturing)	Eco-design management system, nature-friendly products and management of chemical substances contained in products
4 Eco-Products (green procurement)	Green procurement, green purchase
6 Next-Generation Product/Service Strategy	Eco-products business strategy, sustainable business, external publicity
6 Eco-Factories (reducing global warming)	Business and product strategy, sustainable business and external advertisement
Eco-Factories (resource circulation)	Waste reducing and chemical substance management
8 Environmental collaboration with stakeholders	Information disclosure, communication activity and global citizen activity



# **Environmental Accounting**

According to the Hitachi Environmental Accounting Guidelines, our environmental conservation cost was determined for plant and equipment investments, research and development expenses, and other expenses related to environmental activities. The environmental conservation effects were determined based on profits from the sales of recycled items, reductions in material expenses, and related factors. For fiscal 2009, the curtailed investments for equipment with reduced environmental impact and the development and design of Eco-Products have produced such economic effects as reduced material expenses. We will continue to improve the return on investment.

#### Costs (in millions of ven)

	FY 2007	FY 2008	FY 2009	Overview		
Business area costs	248.8	175.3	188.1	Costs of maintenance of equipment with low environmental burden, depreciation, etc.		
Upstream/ downstream costs	0.4	0.4	0.1	Costs for green procurement and recycling		
Management activity costs	77.4	72.3	75.9	Personnel expenditures for environmental management, maintenance costs for environmental management system		
Research and development costs	115.5	188.6	310.8	R&D for the reduction of environmental burden caused by products and production processes, product design expenses		
Social activity costs	2.1	2.1	1.7	Environmental improvements such as afforestation and beautification, PR, and publicity expenses		
Environmental damage costs	0	0	0	Environment-related measures, contributions, and levies		
Total	444.1	438.7	576.7	_		

#### ■Investments (in millions of yen)

	FY 2007	FY 2008	FY 2009	Overview
Investments in environmental conservation	341.3	64.4	42.3	Direct investments in environmental load reduction facilities such as energy conservation facilities

#### ■Economic effects (in millions of yen)

	FY 2007	FY 2008	FY 2009	Overview
Net income effects 13.6		28.3	2.2	Profit on sale of recycled waste, etc.
Expenditure reduction	5.5	58.1	85.9	Cost-saving effects, etc. by saving energy
Material cost reduction	102.4	340.0	1485.4	Reducing materials and parts expenses, etc. by resource-saving design, etc.
Total	121.5	426.4	1573.5	_

# Control of chemical substances contained in products

Our group investigates and controls chemical substances contained in parts and other materials that constitute our products, in order to meet the legal regulations both at home and abroad, as well as customer requirements. We request our business partners to cooperate by such means as providing information about chemical substances contained in parts in order to meet the REACH regulations\*1. Information was previously collected by A Gree'Net\*2 peculiar to Hitachi, but since we became connected to the database JAMP-GP\*3 in April 2010, our business partners can now provide information with even more universal methods.

- \*\*1 REACH Regulation: EU regulation on "Registration, Evaluation, Authorisation and Restriction of Chemicals."
   \*\*2 A Gree Net: A Hitachi system for registering environmental information about procured
- products

  #3 JAMP-GP: A database designed to share information in AIS and other formats in a crossindustrial manner which the Joint Article Management Promotion-consortium aims to spread



Throughout the product lifecycle from manufacturing materials, production, and customer use to final disposal, we work to reduce the impact of products on the environment.

#### Eco-Products for fiscal 2009

The new Eco-Products registered by our group for fiscal 2009 totaled 15 models and three services.

#### ■Camera integral with platform

HC-268 Super Eco-Product

1) CO<sub>2</sub> emissions: 62% down

2) Resource level: 42% down 3) Maximum power consumption:

75% down

(compared with HC-258 marketed in 2005)



## ■ Cordless phone system for the workplace

#### Super Eco-Product DRX3000-CS

1) CO<sub>2</sub> emissions: 74% down 2) Resource level: 34% down 3) Power consumption: 80% down

(compared with DRX2000-CS marketed in 2002)



#### ■ High-sensitivity color camera

#### KP-D5001

1) CO<sub>2</sub> emissions: 43% down

2) Resource level: 43% down

3) Power consumption: 40% down (compared with KP-D531 marketed in 2001)



## Renewed outdoor speaker

#### ECF-8502T

Super Eco-Product

1) CO<sub>2</sub> emissions: 48% down

2) Resource level: 49% down

3) Standby current: 67% down (compared with ECF-1501T marketed in 2000)

## ■ Antenna for terrestrial digital broadcasting

# U-LD3 (Gokyu) Super Eco-Product

1) CO<sub>2</sub> emissions: 16% down

2) Resource level: 39% down

(compared with U-W19 marketed in 2008)

# ■ Head amplifier for terrestrial digital broadcasting

#### DHA5

1) CO<sub>2</sub> emissions: 41% down

2) Resource level: 18% down

3) Power consumption: 42% down (compared with DHA1 marketed in 2005)





# **Expanding Design for Environment** (DfE) Assessment

DfE Assessment incorporated eco-friendly design assessment for hardware products in fiscal 2008 and seven additional assessments in fiscal 2009, thereby expanding the scope of business to be assessed. As a result, we successfully evaluated the installation and repair services into Eco-Products.

#### Assessments added

Assessment scope	Models and services to be evaluated
1. Eco-friendly Design Assessment Guidelines Ver2	Products consisting mainly of software
2. Engineering (in maintenance, etc.)	Maintenance, periodic servicing, cleaning, etc.
3. Physical distribution	Transportation
4. Construction (installation)	Installation, setup, moving, etc.
5. Repairs	Repairs
6. Sales	Tasks consisting only of product trading
7. Software	Software not including hardware

# Super Eco-Products

The condition for a Super Eco-Product is that it must be an Eco Product, having a global warming prevention factor\*4 or resource factor\*\*5 of 10 or more. In addition to this qualification, the top-level products of the industry and externally recognized products can also be registered as Super Eco-Products. But in that case, such products should be periodically reviewed.

- \*4 Global warming prevention factor: This refers to how many times efficiency (i.e.
- actional warning prevention factor: This refers to now many times efficiency (i.e. product functions over product life per CO<sub>2</sub> emission) is improved, compared to that of the model in the year 2000.
   Resource factor: This refers to how many times efficiency (i.e. product functions over product life per gross value of resources) is improved, compared to that of the model in the year2000.



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Hitachi Kokusai Electric CSR Report

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#### Editor's Postscript

We have explained and reported the thoughts, intentions and efforts of the Hitachi Kokusai Electric Group in its creative manufacturing that contributes to society by citing some examples. The special report of this issue presented the reform drive in our group named HiKQ innovation. Since this is a corporate-wide drive, we originally wanted to present the comments of all persons concerned, but could only post a few. We would like you to respond to us with your comments and ideas through the questionnaire on the website.